Immunitary Gaming

Mapping the First-Person Shooter

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Doctoral Thesis

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Declaration of Authorship
I hereby declare that all the material contained in this thesis is my own work.
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Abstract

Videogames have been theorised as an action-based medium. The original contribution to knowledge this thesis makes is to reconfigure this claim by considering popular multiplayer FPS games as reaction-based — particularly, immune reactions. I take up Roberto Esposito's claim that the individual in contemporary biopolitics is defined negatively against the other, controlled and ultimately negated via their reactions to power's capacity to incessantly generate threats. By inciting insecurity and self-protective gestures, FPS games like Activision's *Call of Duty* franchise and EA's *Battlefield* series vividly dramatise Esposito's thought, producing an immunitary gaming.

Immunitary Gaming locates the FPS within key moments of change as well as evolution in Western image systems including the emergence of linear perspective, cartography and the early years of the cinema. The FPS appropriates these image systems, but also alters their politics. Giorgio Agamben has argued that the apparatuses of late modernity no longer subjectify like their forebears, but desubjectify the individual, producing an impotent neoliberal body politic. I trace a similar development here.

My work also seeks to capture the player's movements via autoethnographic writing that communicates the viscerally and intensity of the experience. The FPS is framed as capable of giving insight into both the present and the future of our technological and political milieu and 'sensorium,' in Walter Benjamin's terms. In its valorisation of the individual and production of insecurity to incite action, this project argues that the FPS is a symbolic form of immunitary neoliberal governmentality.

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Stillness and Action; A Roadmap of the FPS and Immunitary Gaming

1.0 Lights, camera, action!

Alexander Galloway has defined the videogame as an action-based medium (2006: 2). However, I would like to propose a revision, or, at least a refinement to Galloway's definition in relation to two commercially dominant competitive first-person shooter (FPS) franchises – Activision's *Call of Duty* (2003-2016) and its competitor, EA's *Battlefield* (2002-2016) – in approaching the gestures they produce as reactions. This thesis argues that these videogames should be read as apparatuses which catalyse an immunitary (Esposito 2008, 2011) response in the player, establishing a dialectic of inside and outside, self and other which continually transgressed. I hope to demonstrate that if the FPS hails the subject, it does so not as a call of duty, but as the call of insecurity – a primary condition of the neoliberal subject (see Lazzarato 2009: 119-120 and Chandler and Read 2016). To characterise the FPS in these terms, I map the FPS via autoethnographic reports of the intimate and intense experience of playing online. To complement this approach, I also chart how the genre represents relations of continuity and rupture with the aesthetic traditions and subject-object relations of the image systems of the last five hundred years: maps, perspectival construction and, particularly, the cinema.

The reaction incited by the videogame is an input, a bodily gesture that makes tactile contact with a control device connected to computer hardware that runs as per the routines of software. However complex these bodily and technological processes are, the visible result of the player's initial gesture is a corresponding animation on screen. These movements are mapped live in the rectangular frame that is dominant in the Western tradition of picture making since the systematic construction of linear perspective by Leon Battista Alberti (2004) in the renaissance. Anne Friedberg has argued that vision remains mediated 'within the delimited bounds of a frame and seen on a screen' (2009: 7) regardless of historically specific spectatorimage relations and associated ways of seeing and sensing. It is this interchange of corporeal

and technological activity, situated quite literally in the frame of Western aesthetic traditions where I locate the FPS's ephemeral image and where this thesis finds its meaning.

Martti Lahti (2003: 163) has evoked the 'delirium' of the affective feedback loop between player and videogame, noting how the body writhes as evidence of its imbrication into a cybernetic system which he aligns with the shocked cinematic spectator mapped by Benjamin in 'Motifs' (1999). But what do I mean by affect? I take Brian Massumi's definition initially developed in his translator's introduction to Deleuze and Guattari's *A Thousand Plateaus* (1987), understanding it as a preconscious intensity of sensation that cannot be captured by language, exceeding representation while also framing the body's ability to act. Massumi notes that affect:

is a prepersonal intensity corresponding to the passage from one experiential state of the body to another and implying an augmentation or diminution in that body's capacity to act. (1987: xvi)

The idea of a preconscious intensity raises the question of whether affectivity is analysable. In response to this intellectual aporia, Massumi notes in Parables for the Virtual that affect is 'unformed and unstructured...it is not entirely containable in knowledge but is analysable in effect, as effect' (2002: 260). With affect we are left with traces, with consequences. It is these effects (gestures) that the videogame captures like the ripples in sand left by the surges of the body's affective tide. Despite the hallucinogenic intensity and almost limitless variance of the interchange between body and technology, the content of the videogame's moving image is limited by what Massumi (2002: 137) has characterised as the 'possibilistic' nature of the digital. The pre-coded nature of the videogame frames future activity in the screen space, representing the visible output of what Patrick Crogan (2011: 5) has argued is the cybernetic logic that structures videogame experience. The possibilistic future-oriented nature of the visibility of the videogame signals the overarching authority of its game's code. Actions occur in what Erwin Panofsky (1997: 30) might have described as the game's 'mathematical space' – which, just like the calculated perspectival construction of the renaissance, produces a sense of the infinite via an intensification of control over the finitude of the image (1997: 65). If we return to Galloway's claim that action is the central characteristic of the videogame as a medium, the gestural movements articulated on-screen are evidence of the game's existence – its image and life. However, these actions are also an expression and modulation of the player's life provoked by

the screen, translated into a signal that is regulated by algorithms of the software and fed back into the display device: a reaction, rather than action.

Despite my focus on the way the videogame incites affective intensities in the body and captures echoes of these intangible processes in the movements of the image, this thesis also engages at various points with psychoanalytic theory. There are two reasons for this. One lies in the way that videogame theorists have established a dialectic between the medium as characterised by bodily activity and a psychoanalytic model of the cinema predicated on the transcendent, disembodied gaze (see Ash 2010: 6). There is also a trend in the other direction in which language is borrowed from the lexicon of Lacan (2006) and apparatus theory (see Baudry 1974 and Metz 1982). This is taken to its extreme in explicit mappings of psychoanalytic ideas against the FPS in works important for this thesis (Taylor 2003, Morris 2002). On the other hand, I also engage with the work of Freud borrowing his terminology around fear and emotion. In a more long-form way, the repetitive nature of the death drive (2010) is mapped against the FPS's respawn mechanism in this thesis' final analytical chapter. Rather than attesting to the validity of Freud's understanding of mental trauma, this appropriation of his work is more of a thought experiment in which a concept is mapped against an unlikely target to draw out the particularity of both. In the case of 'Respawn' this results in a profitable dialogue being established between Freudian and Deleuzian (2004) repetition that emphasises the way affect is central to both ideas, but in different ways.

1.1 Image, action and embodied perception

This capture of the player's gestures by a calculated form of representation means that the existence of the videogame medium and the player are entangled. Affective intensities cross into the body while the body's gestures appear on-screen. Hans Belting (2011: 29), has argued that images need to be understood as anthropological because they are always essentially animated by the human body. Belting stresses that the role of the medium in producing the image is to provide a visibility that the body must endow with life. Images are never simply 'out there', but are products of an interaction or exchange in which human perception and imagination are key elements, also meaning that the image occupies a social and political space

(2009: 32). There appears to be a parallel here with Galloway's conception of the videogame, which, like the image, must be enacted by the player to exist.

Videogame actions are anthropological in the sense that they express a moment of negotiation with the human element. The FPS has been read by Pasi Väliaho as characterised by 'hectic rhythms that its players incorporate in patterns of movement, affectivity and arousal' (2014: 32). Any capacity for critical distance and reflection appears marginalised – if not bypassed – by the continual provocation to act and give the videogame life. Although the anthropological character of the FPS remains germane, videogames also animate the body translating its affective surges into an image of corporeal reflexes and processes.

A key difference between Belting's understanding of the anthropological nature of the image and the FPS lies in the way the videogame medium encloses the field of its animation. The FPS player is, as Espen Aarseth (1999), Lahti (2003) and Crogan (2011) have argued, ensnared in a cybernetic loop. This alters the negotiation between body and medium described by Belting, disrupting the role of the human factor as the sole animating agent. In doing so, videogames such as the FPS claim the movement of the body within their own regime of representation. Much of this thesis is aimed at making this colonised and bodily image visible to the critical imagination, and trying to recover, map and explain the FPS as an expression and agent of neoliberal hopes and fears.

With videogames, the idea of the image and the player's body begin to enter a mutually constitutive relationship. The connection between action and perception is discussed in recent work by Alva Nöe, which suggests that vision is less like a static picture in the brain than it is determined by bodily dynamics of movement (2006: 73). Here, vision is haptic, just as tactile senses afford us with visual impressions. For Nöe, the visual sense would be rendered 'experientially blind' without the experiential coordination between seeing and movement. Here, the boundaries between different bodily capacities and sensitivities are diluted by their dynamic synthesis. By intercepting the connection between movement and perception and diverting it into a cybernetic feedback loop, the videogame makes a wider claim to rewiring the human sensorium. As the player gestures, the visible changes. As the visible unfolds, new tactile inputs and sensations are motivated, producing the player's vision and sense of their environment as immanently and intimately tied to their gestures and the tactile texture of the experience. An alignment of Nöe's understanding of the workings of perception and Galloway's

conception of the videogame presents the opportunity to position the FPS as an experience capable of both reflecting and reproducing the conditions under which the player can perceive the real and act. Similarly, Richard Grusin has argued that:

when you move your avatar in a game... you are adding cross-modal patterns of touch to the coupling of sight and sound. That is, the haptic movement of hand on controller, along with other bodily/muscular movements involved, produces a change in the medial other, in both the user's avatar or cursor and the other human and nonhuman actors on screen. (2010: 95–96)

Grusin is describing an alteration in connection between perception, action and sensation inaugurated by the videogame apparatus. Similarly, James Ash draws upon Roger Caillois's (1984) notion of teleplasty, noting that: 'technologies do not only pre-empt what one can do and the ways in which one can do it; technology itself acts to pre-empt possibilities for sense by shaping the user's "phenomenal field"' (2010: 4). Important here is the idea that the actions and perceptions intercepted and translated by videogames generate a change in the body, not only when we play but also that alteration characterises the corpus from which future actions and perceptions become possible, or are foreclosed.

Dovetailing Galloway's idea that videogames are action-based with Belting and Nöe's parallel works on the necessity for images and perception to be animated to come into being brings videogames into the field of image and body systems. The coordination of these theories, which posit action as crucial to the nature of the videogame, image and perception, suggests that what we do in videogames has consequences for how we situate the FPS in the system of images prevailing in the Western world. This also produces a rupture in what Walter Benjamin (1999: 171) might have termed the 'sensorium' of the Western body. In this thesis, the question of the FPS as a mutation of the image – as well as the capacities of the body to perceive and make sense of the world –becomes central in attempting to understand the political and economic character of our time.

This connection to power places videogames within the sphere of Foucauldian concepts of governmentality, in relation to which Nikolas Rose has noted that 'To govern is not to crush the capacity to act, but to acknowledge it and utilise it for one's own objectives' (1999: 4). If videogames are indeed an action-based medium, these actions must not simply be understood as being aimed towards the politically neutral goal of the player adopting 'a ludic attitude' (Arsenault and Perron 2009: 111) where rules are embraced because the outcome of the game

itself is valourised (Juul 2005: 36). Instead, this thesis approaches the player's movements as a reaction to a form of governmentality that, rather than dominating the body, brackets the scope of its activity, rendering each action a response. Tackling the videogame in this way means they need to be approached as *dispositifs* (see Agamben 2009) that use frameworks such as games and play to induce actions as seemingly positive expressions of the player's agency and liberty but where taking power becomes indistinguishable from being colonised by it.

1.2 Rupture in the apparatus

In his essay, 'What is an Apparatus?' Giorgio Agamben (2009) forwards the following definition of Foucault's idea of the *dispositif*:

I shall call the apparatus literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviours, opinions, or discourses of living beings. (2009: 14)

As contexts for bodily activity productive of images and modes of perception and embodiment, the FPS and videogames in general are certainly apt to be described as a type of apparatus. A large part of this thesis is a product of a reflection on my own experience of playing multiplayer matches online and charting how the game produces certain kinds of conduct both within and beyond the limit of its experience that are aligned with wider techniques of governmentality. These written impressions of gameplay will form much of the basis for my attempt to read the FPS as an apparatus, which is historically distinct in its production of the subject.

A key strategic foil for this recourse to an intimacy with the FPS will take shape as a dialogue with theoretical discourse surrounding Western image systems in their historical contexts as well as their social and cultural significance. These differing image-based apparatuses and their attendant subjects will be aligned with a characterisation our broader cultural, political and economic contexts. However, this thesis also charts the way the image cultures of perspectival painting, cartography and the cinema are not simply a point of contrast with the FPS, but are appropriated and remediated by it. I argue that one cannot understand the political stakes of what the player is incited to do in the FPS unless one does so through the lens of how the remediated visual forms through which player reactions are motivated and shaped have been theorised.

A central driver for this thesis lies in the first-person shooter's relationship with the cinema and modernity. Jonathan Crary has argued that modern media are predicated on certain technological infections of technique into the body, suggesting that vision is the product of a historically specific constitution of the senses (1992). For Crary, modernity was a historical moment in which notions of inside and outside were put into a state of flux and biological processes are increasingly captured and disciplined by new epistemological formations for ultimately economic motivations (1992:24). Writing over half a century earlier, Walter Benjamin argued that the intense and intimate sensations and rhythms of production that characterised mechanised industrial capitalism created a body that also sought those same stimuli in the cadence of the mass media, particularly in the visual regime of film spectatorship (Benjamin 1999: 171). Key for Benjamin was the effect that the visuality of the cinematic apparatus had on reducing the capacity for critical distance in what he described in 'One Way Street' as a mass media landscape in modernity that produced a 'stolid, abrupt, sensational proximity' (2008: 97). This perceptual and bodily intimacy between the spectator and the cinematic apparatus was evidence of the role that media technology, rather than top-down political authority, played in producing what Foucault would go on to identify as the disciplinary society (1991).

Benjamin's affective one-way street in which the cinema programmes the movements and sensations of the viewer is subjected to a form of feedback in videogames as gestures pass in the opposite direction and manifest on the screen. Here, the negotiation between the player's body and an image-based apparatus unfolds in visually unpredictable ways. This disorienting kaleidoscopic interchange suggests that the bodily logic of modernity mapped by Crary (1992) and Benjamin (1999) has undergone further change. Lahti (2003: 166–167) has argued that videogames such as the FPS capture the player in precise high-velocity rhythms of action apt to be coordinated with industrial work. However, Lahti's alignment between the FPS and Benjamin's analysis of industrial modernity ignores the fact that the Western political and economic context has changed radically since the industrialisation of the late 19th century.

In our post-industrial societies and economies (see Bell 1999), it is notable that the FPS demands the movements of a lively, moving and feeling body. The connection between seeing, sensing and doing that the cinema disrupted is re-established (see also Crick 2010: 263). This occurs in a Western economic context in which action and corporeal movement in a workplace that was

defined by the tailoring of the body to move in concert with machinery appear greatly diminished as we sit immobile at our computer screens which become the locus of our actions (see Friedberg 2009: 2). After the production line, the politics of bodily discipline lose their target. The subject must be reconstituted through differing political technologies and for ends that make sense in terms of contemporary systems of governance.

1.3 FPS as apparatus of neoliberal governmentality

Despite being labelled with as a game, the FPS is approached in this thesis in terms of what Brian Rotman calls the medium's 'a-signifying dimensions' (2008: 82). For Rotman, these aspects sit 'beneath the medium's radar, as part of its unconscious, giving rise to effects not conveyed or represented by it' (2008: 82). The meaning of the FPS lies in what happens to the player's body and psyche when we play. As noted above, I approach the FPS as a medium that both animates and is animated by the body of the player, but also one in which in-game actions are carried in some sense into the world, beyond the circumference of any magic circle descried by the game (see Huizinga 1949: 10). However, this connection between the FPS and the conduct of the player is not linked to the content of the game's representation of violence or war, as in Simon Penny's (2006) work linking games like *Doom* (1993) to the wave of mass shootings that have afflicted the US. Rather, I attempt to read how the FPS reconditions actions as reactions. The FPS is approached as a symbolic form¹ in the way minds and bodies are mapped as insecure and vulnerable, neoliberal subjects (Chandler and Reid 2016) who assert their identity and place in the world through apparently self-directed actions that have been incited and bracketed by power.

Foucault characterised the transition in modernity towards a political system that sought to nurture and harness life in *The Will to Knowledge* as where '...the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death' (Foucault 1998: 138). In modernity, the *ancien regime* and the sovereign's recourse to death and policies of what Foucault calls 'deduction' are replaced by a politics that seeks to take charge of the health

¹ Following Panofsky (1997), I see the FPS as a symbolic form in the sense that it isn't a naturalistic manner of constructing and experiencing space, but a form that articulates a particularly Western way of seeing, understanding and encountering the world, as well as being connected to the particular forms of subjectivity produced by our political moment defined by neoliberal systems of governmentality.

and security of both the individual body and of the population. The result is disciplinary technologies that train or subjectify via apparatuses like schools and hospitals on one hand (1991), and the birth of statistics monitoring birth rates, demography and policies of mass immunisation that address the population on the other (1998).

Fundamentally, this shift indicates that strategies of power become reversed from the threat of deduction to the guarantee or demand of addition. It is in this move that Giorgio Agamben (1998) has noted that politics takes life as its primary interest, shattering the dividing line between the Greek term *zoe* (animal life) and *bios* ('a form or way of living proper to an individual or group' (1998: 1)) upon which the assumptions of the political field as one relating solely to a juridical and abstract subject are based. Per Agamben (1998: 9), it is the political address to *zoe* that distinguishes biopolitical governmentality categorically from other forms of power. It is in this radical and fundamental appropriation of the life of the human animal that for both Agamben and Roberto Esposito (2008, 2011) produced the horrors and relative successes of biopolitical modernity in the dominant categories of biopolitical discourse – its tendency towards affirming life and its thanatopolitics (see Campbell 2011), particularly those of Nazi Germany.

However, any discussion of the FPS must consider its position as a popular entertainment and private money-making enterprise with political values that are at best opaque. As such, this thesis approaches the FPS considering the political and economic landscape of the West; namely the paradoxically deregulating and controlling tendencies of neoliberal economics combined with the increase in insecurity that followed the 9/11 attacks, which struck at the symbolic heart of Western financial systems in New York. Neoliberalism is, of course, expressed differently in varying contexts. Foucault (2008: 79) himself was at pains to trace the differing genealogies of its application in the national politics of both the U.S.A. and post-war Germany. However, here I follow Colin Crouch's definition that these more specified manifestations are united by a view that:

free markets in which individuals maximize their material interests provide the best means for satisfying human aspirations, and that markets are in particular to be preferred over states and politics, which are at best inefficient and at worst threats to freedom (2011: vii).

However, Foucault (2008: 240) argued in the late 1970s that American neoliberalism differs from related systems in Northern Europe in its tendency to apply theories to the operation of

so-called open markets as an interpretive category for every social action and interaction of the individual. Crucially, in the American context, this mode of analysis was extended not only to rational actions aimed at maximizing return from scarce resources, but also to how what Foucault calls 'modifications in the variables of the environment' (2008: 269) can produce systematic responses on the part of the individual, even if these responses are otherwise 'irrational'. This leads Foucault to suggest that, counter to the narratives of 'light-touch' regulation, the economic analysis becomes so pervasive as to seek to govern almost every activity (2008: 270). Foucault understands neoliberalism as a mode of governmentality that maps the individual at one remove by inciting competition and insecurity as a means of control. I would like to argue that the FPS can be characterised as an apparatus enabling the production of just such an environment, where stimulus is continually introduced and players respond in a more-or-less systematised manner, albeit apparently as an expression of their own free will.

Much of what follows in this thesis focuses the way the player is exposed to fear, competition and insecurity as the stimulus for a form of distanced bodily training. However, the specifics of the player's reaction to these incitements is crucial. In the pages that follow I not only map the first-person shooter as a set of conditions aligned with the values of neoliberalism, but chart the player's responses to the game as an immune reaction. One that, as Esposito claims, is a 'self-protective syndrome [that] ends up relegating all other interests to the background, including "interest" itself as a form of life in common...' (2011: 15). *Immunitary Gaming* is a map of the way that the deployment of danger and the player's defensive reactions to it maximise their protection from the common but also ultimately undermines their own security.

1.4 Match beings in... a map of the FPS image

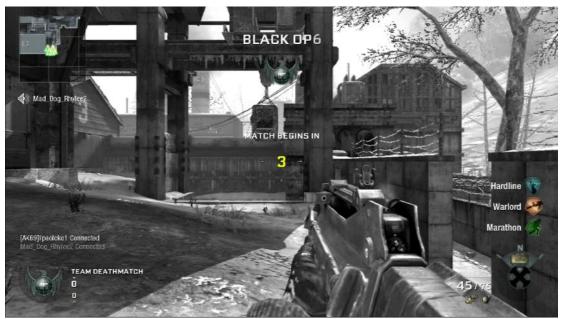


Figure 1.1 Countdown. Screen grab from Call of Duty: Black Ops (Activision, 2010).

10...9...

Since the release of *Call of Duty* in 2003, all twelve of publisher Activision's blockbuster franchise's multiplayer matches start with stasis. Not the still frame of a menu screen asking the player to select a game mode, hone their weapon configuration, or 'loadout' of perks. Indeed, as Galloway has argued, navigating menus still constitutes a form of gamic movement (2006: 14). But here, seeing through the lens of the first-person perspective and plotted within the game's multiplayer 'map' (see Figure 1.1), the link between input into the controller and output onscreen is suspended. Perhaps, this paralysis can be read like a loading screen where the player is simply asked to wait, monitoring the expansion of a progress bar or numerals ticking towards 100%? Loading screens are typically abstract graphical representations of underlying computational processes that occur outside of a game's diegesis, even as the computational processes they visualise act to construct it.

However, where loading is usually denoted by conventions of addition towards an end-point of completeness, here we have a deduction towards zero – a countdown. This could be read as a countdown to immersion, in which the player readies themselves to pass into what Galloway has called the game's 'fully rendered actionable space' (2006: 63). For Oliver Grau, 'immersion is mentally absorbing and a process, a change, a passage from one mental state to another. It is

characterised by diminishing critical distance to what is shown and increasing emotional involvement with what is happening' (2003: 13). Here, the countdown ensures that immersion reaches out, tentacle-like, programming the player before the round has started, revealing itself as a temporally complex process that is not determined solely by the beginning of the game and may be anything but a guaranteed facet of playing the FPS. Here there is the suggestion that this preparation demands a reduction in the player's engagement with their external environment and of their critical faculties to a point resembling zero. For it is at zero, when the match begins, that the player and the apparatus come to life in the form of actions that signal the start of the game.

The first-person perspective defines a genre that has taken up a central position within the landscape of videogames since the release *Wolfenstein 3D* (id Software) in 1992 for the PC. The *Call of Duty* series, perhaps more aptly called a 'franchise' because of its tendency to be farmed out to different developers while remaining a consistent formula has sold more than 175,000,000 copies since 2003 according to its publisher Activision (Gamespot 2015). The FPS, has been central to the mainstream success and current ubiquity of video games and video game culture in the West.

At the beginning of a multiplayer match of *Call of Duty*, the player's first-person perspective takes shape as a gaze towards the centre of the screen where the countdown throbs away the seconds encircled by the crosshairs that signify the player's aim (see Figure 1.1). In his 2006 touchstone chapter on the FPS's 'gamic vision', Galloway makes the claim that the mobile first-person perspective embedded in a fully rendered actionable environment fulfils an aesthetic impulse within our visual culture for the moving image to achieve a closer approximation to 'human' vision (2006: 65). However, the centring of the frame on a three-dimensional environment suggested by the crosshairs seems to underscore the constructed nature of the image. The crosshairs denote the sights of a gun, but they also recall the mechanically produced monocular vision of the camera lens. Here the game evokes both the still image that is the product of the photographic process and the gaze of the photographer. Meanwhile, the countdown itself alludes to the fundamental technical basis of the computer processor as a machine for automating numerical calculations as the essential technology for the creation of computer-generated images. Technique seems to pulse at the centre of the image. The paralysis imposed at the start of a multiplayer match is a gesture towards the relation of power between

the player's capacity to act and the game. This thesis resists the idea that there is anything essentially 'human' or 'free' about the FPS's mobile perspective

My first analytical chapter 'The Immune Image' centres on conceptualising the player's perspective as a gamic skin. I focus on its capacity to incite a nervous and reactive gestural style primarily through the paradoxical limitation and huge possibility of variation inherent in its point of view. I understand the FPS as a generator of aesthetic and spatial shocks that puts the player in a state of bodily and perceptual crisis. I then coordinate this crisis with Roberto Esposito's (2008, 2011) conception of biopolitical immunity as the interpretive category through which to read the dynamics of power in our time. A self-defeating reactive subject is produced by conceptualising the first-person perspective as a skin-like hybrid of a pictorial frame and bodily gestures. The key here is that this crisis in these fundamental categories is perversely caused by a mechanism that seeks to immunise and secure the individual against community, against the outside. I see this immunity as a self-defensive and self-defeating process that is instigated by the fear of the other.

8...7...6

In rhythm with the clockwork action of the countdown, the avatar's hands and weapon project towards the centre of the frame and move in the cadence of a living, breathing body. So, the image is not strictly still, only movements produced by the player's actions are excluded. At the same moment, the disconnection between the movement of the limb and the player's inputs seems to make plain that we are viewing a repeating cycle of a fixed animation, a bare repetition without difference or the capacity to become in Deleuzian terms (2004). Here, the player must wait for the moment when they can move the frame and act. Only then will the movements of the avatar's arms seem a natural and constituent part of both their actions and the image.

The countdown's rupture between player action and the vital movements of our avatar can be at least partially explained regarding a more profound disjunction. This is because during this the countdown, it is unlikely that they will engage in any other activity that requires a change in the arrangement or location of the body. Stillness is not simply an absence of movement on the screen, but the adoption of a bodily posture in the actual that requires physical effort to maintain. Here, the image appears to draw attention to its own internal contradiction, where

movement is implied but foreclosed. However, there is one more aspect of the image's anatomy that I would like to draw the reader's attention to, and it is one that is crucial to the way I read the FPS: the mini-map that is a permanent element of the player's HUD (heads-up display; see Figure 1.1)

In his work *The Sovereign Map* Christian Jacob suggests the map produces an ecstatic elevation to a 'panoptic and overlooking eye...strangely detached from the contingencies of the world' (2006: 338) in its reader. The map has the effect of harnessing our lack of presence on its surface to mobilise not only acts of navigation, but also the psyche, for a form of escapism. It is tempting to wonder if the mini-map, with its position locked in the frame, does not behave in a similar manner. We look at the mini-map to escape a static monochrome image that *should* move and adopt a transcendent, god-like gaze able to roam the map's spaces. The problematic nature of the imposition of stillness is in some sense alleviated by the mini-map's authority as a cartographic image (Harley 2001). If our introductory tour of the image in the pre-match countdown has suggested that the game is attempting to preface our activity with anxiety, then the cartographic quality of the mini-map seems to work against this by implying that the player can escape the confines of both their immobilised body and screen.

In, 'Cartographic Gaming,' I suggest that the FPS mini-map operates in a manner akin to contemporary GIS and GPS technologies in how it minimises the distance between viewing the map and action (see Wilson: 2014). I note how the mini-map operates by revealing the position of enemy players and giving a concrete object to both fear and hunt. By visualising these threats, the game creates trajectories of movement. It is through these actions that I suggest a reduced sense of orientation and embodiment is created, which amounts to a cartographic body image capable of temporarily overwriting the player's conflicting sensations of proprioception that are unable to conform to the game's environment. Here, the player learns to navigate and becomes immersed within the game's diegetic spaces, making a transition from an unknowable external threat to a fear that can be mapped, neutralised and immunised against.

5...4...

As the numbers continue to count down this period of stillness exists in an ever-shrinking temporal window. The player is implicitly encouraged to consider first moves and overall strategies that are inflected with an understanding of the possible threats that the game poses.

In this way, the game produces a form of anxiety understood by Freud in *Beyond the Pleasure Principle* (2010) and more recent scholars such as Michael Barlow (2002: 64) as '...a *future-oriented* mood state in which one is ready or prepared to attempt to cope with upcoming negative events'. Here, the certainty that the multiplayer match will start at a specific point in the future initiates a form of planning that is focused on helping the player cope with the threat-based nature of the multiplayer match.

An attendant anxiety is manufactured that pertains not just to the possibilities of the multiplayer match, but to the very structure of our engagement with the videogame apparatus. What this duration of paralysis suggests is that action can be excluded by the game at any time during the normal course of gameplay. This power-relation frames all player actions with the ever-present possibility of exclusion. An anxiety about anticipated movement is joined by a seemingly opposite concern about a return to a state of paralysis. This unmasking of the potential for stasis combined with a future-oriented anxiety over our actions produces in the player a kind of nervous energy. On perceptual, bodily and psychological levels, the player is being mapped into a posture of heightened anxiety that lends shape to the inputs and movements that follow. The player's actions are virtually rehearsed, shaped even before the contingencies of the match have been put into play.

This tendency for the game to produce an anxious, future-oriented player is explored in Chapter 6, 'Respawn.' I chart the fact that the player no longer generates chaotic gestures and attendant erratic spasms of the game's point of view, but engages in repetitions that attempt to anticipate every possibility and contingency that the game throws at them. Here, I construct a map of the master player via a Deleuzian model of habituation adapted from *Difference and Repetition* (2004) related to a concept of pleasure developed by Freud in *Beyond the Pleasure Principle*. What emerges from this analysis is a player who seeks to master the game specifically by engaging in repetitive actions that attempts to minimise the game's capacity to produce drastic swings in stimulation. Here, the player would seem to reach a kind of end-point or death symbolised by the total self-automation of in-game actions — a final and lasting immunity. However, rather than an end-point in the game's regime of habituation, what is signalled here is a built-in obsolescence that is remedied by the annual release of the next iteration of the franchise with its variations in movement mechanics and new multiplayer maps that must be learned anew. It is in this way that my work comes full circle back to the unhabituated player,

but also reflects on the iterative economic model that defines many of the videogame industry's biggest intellectual properties, suggesting a wider parallelism between the experience of playing the FPS and consumer culture.

3...2...1...

If we follow Galloway's (2006: 2) claim that videogames are about action on an ontological level the absence of the capacity to act in the countdown seems to call this duration's videogame-like quality into question. It is perhaps worth nothing that as per Activision's (Gamespot 2015) promotional material (see Figure 1.2), this process has been repeated in over 100 billion multiplayer matches of *Call of Duty* between 2010 and 2015. Like the sums of national debt, or in the bailouts offered to private financial institutions following the collapse of Lehman Brothers in 2008, 100 billion is a number that seems unreal, disorienting. This confusing character in the quantitative language of finance seems to conform to Fredric Jameson's famous claim that late capitalism exceeds our capacity to cognitively map its landscape (1991). My point in flagging up this almost fantastical statistic is not to simply demonstrate the frequency of this process for millions of FPS players, but to underscore its success. One hundred billion repetitions of this elaboration of the tension between stillness and action have not had the effect of damaging the game's popularity. Rather, the suggestion is that this mechanism is part of the game's enduring appeal.

Figure 1.2: Call of Duty Statistics. (Gamespot.com, 2015)

The game dramatically creates a situation where the still image and the player are put under intense pressure. In doing this, the game appears to be appropriating and remediating (Bolter and Grusin 1999) almost the entire history of image-making in the West. From the traditions of Western painting, photography and the cinema to the graphic cultures of cartography and GPS, each of these forms is in some way both chastised for its lack of a connection to action and then remediated in a manner that redresses this perceived lack. If this project is about uncovering the ways in which the FPS captures and then maps the player's gestures, sense of embodiment and psyche as an immune reaction, then it does so under the banner of a liberated and 'human' relationship with the image. This at a time defined by an almost total victory of neoliberal values

in the Anglo-American world seems to offer little chance of resistance. The core values of deregulation and the advancement of individual interests and private concerns over those of the state (see Harvey 2005) have revealed themselves as essentially chaotic tides of capital that have kept much of the West in a state of financial crisis and economic austerity since 2008. A time when the mutating and broadening effects of 9/11 and the War on Terror have become a kind of engine for the reproduction or cloning (Mitchell 2010) of threats to the West, whose actions in countering these threats have only served to feed their growth and spread, necessitating yet more defensive military and political action. This is the time of the FPS.

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A Conceptual and Discursive Heads Up Display for the Study of the FPS

2.0 Introduction

This thesis asks how the *Call of Duty* and *Battlefield* FPS franchises produce psychic and somatic effects in the player, influence and incite the gestural movements of the first-person perspective, and diagram the player's capacities of seeing, sensing and becoming to fit with those of the dominant forms of governmentality in the West. However, the aim of this work is not to characterise the player's engagement with the game in terms of the automation of 'disciplined' and 'docile' bodies (see Foucault, 1991) but in respect of the production of a self-interested and self-defensive subject. The process of subjectification energised by the FPS involves the incitement of self-regulating behaviours and the genre is characterised in this study as a new kind of apparatus congruent with neoliberalism and distinct from the *dispositifs* of industrial modernity: its systems of images, its architectures of enclosure and training, and its economic and political structures.

Conceptually speaking, this thesis represents a triangulation between discourses of videogame theory, Foucauldian ideas of governmentality and the history of Western image cultures such as cartography, perspectival construction and the cinema – all in some sense readable as representing the mathematisation of the visible and of life (See Harley 2001, Panofsky 1997, Rabinbach 1990). This thesis rearranges and reimagines these influences with a view to producing a written map of contemporary subjectivity, its causes and possible effects. However, prior to this speculative cartography of the FPS as an apparatus, another act of mapping in situating this work in relation to the current state of the discourse of videogames, the FPS and the tactics and strategies of contemporary governmentality must be undertaken. While this chapter surveys these discursive landscapes, it also entails their refashioning through a lens specific to the current work. Erwin Panofsky opened *Perspective as Symbolic Form* by quoting

Albrecht Durer and I will paraphrase his translation here: this chapter is not simply the arrangement and contextualisation of relevant works but the production of a perspective – the art of 'seeing through' (1997: 27). The perspectival window that this chapter constructs is akin to the FPS's HUD, a lens that will prove vital for my attempt to capture the political essence of a form defined by its perspective.

I begin constructing this thesis' discursive lens – or HUD – by charting videogame theory before scoping into specific targets, much like the FPS player who scans the multiplayer map before zooming in, taking aim and firing: twitch, click, bang. Ludic and narrative analytical frameworks representing a binary contest over the form's intellectual soul are my first targets. This is followed by a foray into works dealing with videogame space. This overview of videogame discourse is followed by a narrowing of focus towards work that specifically approaches the FPS.

This chapter isn't, however, organised around a historical periodisation or genealogy of FPS games and the scholarly work that they have inspired, which might begin with Mark J. P. Wolf's (1997) taxonomy of videogame space in respect to *Wolfenstein 3D* (1992), Espen Aarseth's (1999) account of the ergodic nature of the same developer's *Doom* (1993) and its structures of *aporia* and epiphany, followed by Lantz and Zimmerman's (2010) 1999 reading of *Quake* (1996) as a context of 'meaningful play'. Rather, FPS scholarship is grouped into two interconnected approaches each centring on the player – their vision, psyche, ethics, experience and bodily capacities. One approach is a dialogue of works that are connected by the concept of identification, the related issue of immersion and the way these states have been closely connected with the defining feature of the FPS: the first-person perspective. The second surrounds work that address the genre in general – and publisher Activision's *Call of Duty* franchise in particular – as powerful affective technologies of corporeal and perceptual training.

These approaches to the FPS's influence on the player's sensory, perceptual and mental capacities can each be interpreted as positioning the genre as a Foucauldian apparatus, which Giorgio Agamben has defined as a subjectifying machine with the 'capacity to capture, orient, determine, intercept, model, control or secure the gestures, behaviours, opinions or discourses of living beings' (2009: 14). One of the primary contributions this thesis seeks to make within the discourse on videogames is a systematic exploration of the FPS as an apparatus involved in

modulating the player, which takes in the body's affectively induced gestures, its general behaviours, and elements related to more abstract constructs such as identity. As such, the works of Foucault and subsequent and connected thinkers like Gilles Deleuze, Agamben and Roberto Esposito form the intellectual and philosophical bedrock of this work.

While producing a short history of the development of Foucault's thought, this chapter primarily focusses on his later work on the biopolitical nature of neoliberal governmentality (Foucault 2008). The relevance of these later lectures lies in the way that Foucault's understanding of liberal governmentality and the FPS parallel the tension that arises between the subject conceived as a rational being engaged in the pursuit of its interests with presumed right to act without direct political interference and the necessity to ensure their conduct is beneficial to authority (see Chandler and Reid 2016). In the sphere of neoliberal governmentality, the subject's liberty expressed in economic terms is both lionised and intensely managed by the overarching authority of the political order (Foucault, 2008: 252; see also Esposito 2008: 72). In the videogame, too, the player's activity is contrasted favourably (see Galloway 2006) against competing image regimes such as the cinema but it is also this sense of freedom that is subtly contradicted and managed by the spatial, temporal and ludic constraints that the game puts into play.

Foucault (2008: 66) understood – along what we might call Deleuzian (2006) lines—the liberal 'diagram' as mastering the subject at one remove by curating a 'dangerous' and insecure context, characterised as *laissez-faire* in respect to the overt discipline of the individual while retaining a degree of control over general parameters. The idea being that the construction of this controlled environment would create a context in which economic subjects would manage themselves as part of the exercise of their liberty – competing, furthering their interests and defending themselves. Laying the groundwork for the coordination of the FPS with this conception of liberal and neoliberal governmentality is one of the primary aims of this chapter. This thesis approaches the FPS as an apparatus involved in neoliberal modes of subjectification, as a diagram of contemporary governmentality at the intersection of technology, media and image cultures with politics. This thesis is situated in the hinterland of the discourses of videogame theory which thus far have centred on mapping the various forms that games take

and the actions of their players in terms of ludic, narratological and spatial theoretical frameworks.

2.1 An atlas of videogame theory; narrative and ludic hemispheres

[C]ulture arises in the form of play, that it is played from the very beginning...It is through this playing that society expresses its interpretation of life and the world. Johan Huizinga, *Homo Ludens*, 1949, pg 46.

Through storytelling, an otherwise unexceptional biological species became a more interesting thing, *Homo narrans*: that hominid who not only succeeded in negotiating the world of nature...but also has learned to inhabit mental worlds that pertain to times that are not present and places that are the stuff of dreams. It is through such activity that people have gained the ability to create themselves as human beings.

John Niles, Homo Narrans: The Poetics and Anthropology of Oral Literature, 1999, pg 3.

The study of any phenomenon takes shape as an academic territory once it has been categorised, and its borders with other objects and their disciplines are agreed by discursive skirmishes. For videogames, this process has often been reduced to a kind of struggle in which ludology – the study of videogames primarily in relation to non-digital games and rule-based activities (see Juul 2005, Arsenault and Perron 2009, Eskelinen 2006, Frasca 1999) – has sought to contest the application of narratological analytic frameworks that view games in terms of unfolding pre-scripted stories and narrative pleasures (Jenkins 2006, Murray 1997, Laurel 1991). Each approach also draws upon the grander claims of their discourses in which the nature of what it is to be human in the form of *homo ludens* and *homo narrans* – the playing and the narrative species – buttress and underpins their more modest and targeted claims.

Narratological approaches like Janet Murray's work *Hamlet on the Holodeck* (1997) have argued that the potential of videogames lies in their development as a narrative and dramatic medium. Murray notes early in her monograph that 'the computer looks more each day like the movie camera of the 1890s: a truly revolutionary invention mankind is just on the verge of putting to use as a spellbinding storyteller' (1997: 2). In the last twenty years, interventions by new film

historians such as Tom Gunning (2006) and Thomas Elsaesser (2004) have challenged the idea that the current hegemony of narrative cinema represents an inescapable destiny for the form. They have argued for the continuing influence of pleasures and attractions beyond those of storytelling, from early film history to blockbuster effects films. In the development of the printing press, the cinema and the computer, Murray, however, sees a common evolutionary trajectory wherein the medium progresses from an experimental phase – where its capacities of expression are explored in a kind of trial and error fashion – to the development of its own expressive language. Inevitably for Murray, this mode of expression is telling stories. She later notes that:

As digital narrative develops into maturity, the associational wilderness will acquire more coherence and combat games will give way to the portrayal of more complex processes.... In this way, a new narrative art will come into expressive form. (1997: 93)

Murray's now two-decade old prediction that combat games would be superseded by a 'new narrative art', is yet to be fulfilled. If anything, the enduring commercial success of the *Call of Duty* and *Battlefield* franchises alone expresses the fact that videogames are on anything but a progressive and historically predictable trajectory towards a utopian narrative expressive form. However, while the establishment of such a destiny for the videogame threatens to impose a certain pathway for its development, even so-called kinetically driven twitch shooters such as *Call of Duty: Advanced Warfare* (2015) have complex narratives and lore woven into their single-player modes.

One recurring facet of the debate between those viewing the videogame as a narrative medium and those emphasising its game-like qualities is the way the two ideas have taken shape in binarily opposition to each other. The reactionary nature of the ludic discourse seeks to exclude any appeal to narrative structures or pleasures in the reading of videogames as a medium, with Markku Eskelinen referring to theorists such as Murray and Jenkins emotively as 'colonizers' (2006: 36). However, ludologists such as Eskelinen and Juul could be accused of inadvertently producing a situation in which the struggle against theoretical imperialists inevitably comes to define and shape ludology itself. In a staunch defence against the ludologists' war of liberation against the narrative qualities of videogames, Henry Jenkins has stressed that many games have 'narrative aspirations' (2006: 119). The desire to shut down work that doesn't view videogames

solely as game-like objects suggests a kind of theoretical monocular vision or purity should exist in their study.

The use of the designator 'ludologists' – a derivative of the Latin term for games: 'ludus' – for videogame theorists that think games should be approached as interactions between rules and the player productive of play echoes Johan Huizinga's (1949) position developed in *Homo Ludens* where games and playing are positioned as the productive centres of human culture in which people are civilised and trained. A 'ludic' approach to videogames, therefore, contains an implicit connection to this ontological claim regarding the nature of humanity as a playing species, which positions video games as having the capacity not only to reveal the game-like structures of human culture, but to actively participate in the creation of civilisation as part of its cultural essence.

In his 2005 monograph *Half Real*, Jesper Juul defines ludology as the term that privileges the uniqueness or quintessence of the videogame and its scholarly endeavours (2005: 15). He traces ludology's emergence as the essential theoretical framework for the study of video games to Gonzalo Frasca's 1999 article 'Ludology Meets Narratology: Similitude and differences between (video)games and narrative'. However, Frasca's article does not appear to represent an effort to conceptualise the videogame as a form demanding of a 'unique' approach or as a 'separate academic field', but one that should be understood under existing conceptions and theories of games and play. The collapsing of these two very different strategies remains a persistent blind spot for ludologists of which Juul was a primary figurehead.

Studying videogames through the lens of games and play inevitably means that the idea of videogames being essentially game-like, or ludic brings a pre-existing corpus of thought to bear on the form. The point here is not that this approach is unproductive, rather, that claims that videogames are unique and thus essentially game-like threaten to stymie and narrow thinking on the form by imposing the primacy of ideas of games and play onto future work. Ludology appears to gloss potential ruptures between contested conceptualisations of games and play on one level, and elide the fact that the videogame is a complex amalgamation of information and screen-based technologies with deep histories and even more tangled and changing relationships with their users on another.

The central critique laid at the door of narratological approaches by ludologists rests on the way narrative can be said to over-determine the huge variance of actions possible within a context that views them as part of a linear story. It certainly seems no great risk to characterise the linear structure of narrative as an oversimplification of the multiple possibilities videogame action offers the player. Frasca makes a useful distinction in this regard, stating that, 'we cannot claim that *ludus* and narrative are equivalent, because the first is a set of possibilities, while the second is a set of chained actions' (Frasca 1999). The distinction between the two apparently conflicting terms relies on positioning ludus as an elaboration or complication of narrative structure wherein one set of linear possibilities is trumped by the introduction of a multiplicity of pathways with different ludic destinations. However, rather than a truly distinct structure, Frasca seems to be describing a difference in complexity between narrative and ludus rather than a difference in kind. Both frameworks suggest that players attempt to complete a game by becoming familiar with essentially algorithmic or linear structures, a mastery of which leads to an interpretive fluency in which the player embodies the logic of the programme (see also Galloway 2006: 92).

An acknowledgement of the possibility for multiple branching pathways and different end-states means that a ludic approach grasps the way the temporality of the videogame is never set on a single trajectory. For Juul, 'It is clear that the events represented cannot be *past* or *prior*, since we as players can influence them... the story time is *now*. Now, not just in the sense that the viewer witnesses events now, but in the sense that the events are *happening* now, and that what comes next is not yet determined' (Juul 2001). At issue here is a matter of narrative predetermining gameplay and exerting a reductive force over time. In the broader context of theorisations of digital media, Sean Cubitt has asserted that 'chronological narrative is caught in a story whose beginning and end have already been determined, and which therefore constructs story time as the unfolding destiny rather than passage from past certainty to uncertain future' (Cubitt 2002: 4). Without relating specifically to videogames, this neatly captures the central problem of situating gameplay's experiential unpredictability within an analytic framework that patterns them after narrative models. However, conceptions of gameplay as a purely rule-based formation also inherently represent a pre-established set of possibilities for player action.

In this way, both narrative and ludic interpretive lenses centre on the application of a monolithic analytical framework wherein player's actions and decisions are characterised either by narrative progression or rule-based problem-solving with an ideal end-state being reached. The deeper the player can internalise and mimic these systems, the 'better' they are at playing the game. This overlap between approaching videogames as narratives and as rule-based games dovetails with Aarseth's claim in *Cybertext* (1997: 5) that while differences exist, there are also significant points of overlap between narrative and ludic approaches to reading videogames.

In their chapter 'In the Frame of the Magic Cycle: The Circles of Gameplay', Arsenault and Perron frame the videogame as requiring 'taking on, at a certain degree, a lusory or ludic attitude' (Arsenault & Perron 2009: 111). This approach rests on situating videogame rules as explicit and determining structures within the context of our experience. However, if the player adopts a ludic attitude, this form of conduct occurs at the expense of myriad other forces operating both within the context of videogames and to constitute the subject in contemporary life. What is 'ludic', for example, about the involuntary twitches and gestures of the unhabituated FPS player, both on-screen and in the body? What kind of attitude does the master FPS player articulate when pitching themselves into choke-points that will almost certainly lead to the predictable outcome of their in-game death? How can either of these essentially affect-driven actions be read as forms of 'play?'

With this more complex relationship between player and game in mind, casting narratology as an external threat to 'native' ludology appears as something of a false opposition. These approaches are each predicated on the idea that the explicit narrative and game-like structures that videogames openly declare are productive of the player as a narrative or playing subject, which is congruent with the player's desires and understanding of the act of engaging with the form. In contrast to this instrumentalist view, this thesis is involved in mining the experience and effects on the player operating beneath the simple reduction of the FPS to an interaction with a game's rules or story. Brian Rotman (2008) has forcefully argued against an instrumental understanding of media forms:

Communication media and semiotic apparatuses never coincide with their intended social uses or cultural purposes or their defined instrumentality or the effects sought and attributed to their manifest contents. Always something more is at work, a corporeal effect – a facilitation, and affordance, a restriction, a demand played out on the body... an undeclared affect, a force outside the apparatus's explicit instrumentality. (2008: 5–6)

Rotman attests to the fact that media shape and constitute bodies in ways that cannot be reduced to their surface aspirations. For Rotman (2008: 2), writing, for example, cannot be understood as a simple instrument of expression, but structures what the writing subject can articulate within its medialogical scope. Similarly, games in the Call of Duty and Battlefield franchises can be approached in terms of their affective relationship to the body and psyche of the player, a relationship that cannot be reduced to involvement in narratives or play determined by an explicit relation to the form's rules. Following Grusin's idea that videogames produce 'modes of trans-modal or cross-modal affective and cognitive modulation' (2010: 95), I approach the player's actions as expressions of bodily dynamics that exceed the power of their desire to engage with the game's stated aims. Whether winning the game is paramount to the player or not, the affective relation between them and the game is what makes it significant (see Väliaho 2014, Ash 2013). The FPS is not simply an instrument for producing the thrill of gaining ludic advantage or narrative pleasure, but an apparatus that in some sense takes the player as its instrument prompting them to see, sense and act, producing certain affective and mental states at the expense of others (see Väliaho 2014, Ash 2010 and 2013, Grusin 2010, Lahti 2003, among others).

Videogames are unique in the sense that the perception of their aesthetic form is not only the product of an act of viewing, but is also constituted by the player's gestures (see Ash 2010: 28). When we gesture into the game it constitutes the player as an on-screen movement, confronting them with an image of themselves. In other words, even when a player is pursuing a ludic goal they see and act through an image that intercepts, reflects, mediates and reorganises their very capacities for seeing and acting. This colonisation of the player by the apparatus captures them in a form of negotiation with the affordances and restrictions that the game places upon them, producing a particular kind of body and subject doubled on-screen (Lahti 2003: 163) and in the corpus that is unique to the game being played. By confining themselves to reading videogames through their narrative or ludic logics, the videogame theorists adopting

these frameworks effectively turn a blind eye to anything beyond the scope of the form's declared instrumentality. However, the unintended consequences, the mapping of the player's body and psyche when playing the FPS, are no less meaningful in terms of the apparatuses' operation than those foreseen by its designers and users. Interestingly in this regard, Galloway has argued that:

video games do nothing but present contemporary political realities in relatively unmediated form. They solve the problem of political control, not by sublimating it as does the cinema, but by making it coterminous with the entire game, and in this way video games achieve a unique type of political transparency. (2006: 92)

Here Galloway is arguing that by actively conceding to the game's rules and becoming fluent in its demands, the player is brought into an explicit awareness of its political meaning. This is contrasted favourably with the cinema, which Galloway tacitly implies is ideological in the sense that its political values are occluded. However, Rotman's (2008) work attests to the fact that the consequences of any medium for its user can never simply be transparent, meaning that the politics of the form are also embedded in the deep tissues of affect, emotion, perception and being. It is with this broadening of the explicit structures shaping player actions and the constitution of the player as a political subject in mind that I now turn to my final foray into videogame theory in the form of ideas that privilege spatiality. Here, we are not considering explicit actions aimed at interacting with a game's rules or completing its narrative, but rather, the production of three-dimensional worlds in which players move, sometimes without specific ends, but never without corporeal and psychological effects or political values.

2.2 Space and travel in the videogame

Travelling quite literally beyond ludic and narratological debates, videogames have also been theorised as a spatial medium in relation to the cinema (Wolf 1997) and where a dynamic encounter with the game space is understood as producing a context in which both the pleasures and risks of movement can be explored by the player (Calleja 2011 and Kelly 2004) and in critical terms (Flynn 2004) in a manner not directly determined by the above-mentioned frameworks. In James Ash's work (2010) the videogame player's desires to map and explore space meets the way that their sense of self is subject to modulation and even negation by a

game's construction of space. This suggests a tension between the power of the game's environment to determine player behaviour and the explosion of possible actions that a videogame's 'complete' (Galloway 2006: 64) and explorable spaces furnish. Approaching videogames via an analysis of their spatial constructs and the tension between the way that these spaces influence player actions and suggest a freer context for them proffers an approach to the form that cuts against the discourse's tendency to centre its analysis on monolithic determining frameworks such as narrative or *ludus*.

Early in his book *In Game*, Gordon Calleja positions virtual reality as the culmination of an explicitly spatial project in visual culture that moves towards the production of totally immersive simulated environments. He traces this impulse as a topos of Western visuality, citing Oliver Grau's (2003: 5) observation that the Romans sought to create 'hermetically closed-off image spaces of illusion' in the form of frescos preserved in Pompeii and rooms dedicated to the simulation of imaginary worlds. Calleja (2011:17) suggests that the construction of illusionistic images and spaces are a consistent motif reappearing between the visual cultures of antiquity, the renaissance (and its perspectival 'window' – see Anne Friedberg 2009) and the policies of spatial construction of modernity's moving image par excellence in the cinema. Within this continuum, cinematic space-time moves towards the production of temporally and spatially complete worlds, with the realist impulse at the forefront of cinema's claims to reproduce phenomenological perception and experience. The valorisation of the long take and deep focus cinematography by Andre Bazin (Bazin 1967: 21) is read by Calleja as an attempt to produce a continuous spatial and temporal environment in which the gaze of the spectator could freely roam. In a similar move, Galloway's concept of the FPS genre's 'gamic vision' (2006) is a partial product of the form's capacity to release the player from the spatial and temporal authority of cinematic editing. Of course, the ethos of Bazin's love for Italian neorealism was indissolubly connected to the creation of an empathetic connection with the quotidian struggles of others and a rejection of the politics of domination that he saw reflected in the Soviet cinematic tradition (Bazin 2004). In line with this, there is a humanistic element to Calleja's account of the drive towards the reproduction of mimetic spaces in which the construction of videogame space represents the latest achievement in a progressive trajectory towards the reproduction of our embodied perception within the space of the image.

The production of totalising, fully-rendered computer generated environments is understood by Calleja, like Galloway (2006: 63), as a founding condition for a sense of presence or 'involvement' within videogame spaces. For Calleja, 'Digital games and virtual worlds are particularly adept at facilitating spatial exploration that enables players not only to project their imagination into the represented landscapes but also to traverse them' (Calleja 2011: 73). This is the key break that the spatiality of games makes from the cinema as Galloway has argued – the introduction of the possibility for action. Calleja's reference to the idea that the cinema produces a form of imaginative projection into its spaces is a recitation of apparatus theory's contention that the construction of cinematic space operates in terms of the spectator's psychoanalytic identification with the shot (see Baudry 1974) and their anticipation of the cut the suturing space to space (see Heath 1977). As part of cinema's bodily turn, Thomas Elsaesser (Elsaesser and Hagener 2010: 142) has also noted sound's crucial role in orienting and giving a sense of place to the spectator. In contrast, the spatiality of videogames is understood by both Calleja and Galloway as an uninterrupted edit-free space where any psychoanalytic model of the desires of the spectator being manipulated by the shot and cut is instead fulfilled by action itself. In other words, Calleja's understanding of the spatial attractions of videogames relates to their potential as spaces for action, where territory can be explored and spatial desires fulfilled (2011: 74) (see also Kelly 2004: 63).

2.2.1 Spatial pleasures?

Calleja schematises his understanding of spatial pleasure in videogames as operating between the poles of successful navigation and being lost. He notes that 'The moment players realize that there is no opportunity to become lost, the scope for exploration is severely diminished and the environment is perceived for what it is: a multicursal labyrinth (that is, one with branches and ends)' (Calleja 2011: 74). This means that spatial pleasure in the videogame is generated by problem-solving wherein the player must act and engage in explicit pathfinding behaviour to mediate between being lost and reaching their destination. Crucially, it is the contingency produced by the former that makes the act of achieving the latter meaningful. Calleja notes that 'a sense of habitation within the game environment' (2010: 75) is the product of these explicit projects of navigation plotted by the player, much like the pleasure and sense of belonging

gained by the tourist who successfully navigates an unfamiliar cityscape. Importantly for this thesis, Calleja (2011: 83) notes that obtaining a close and detailed understanding of competitive multiplayer maps (called arenas by Nitsche 2008) ties the pleasure of exploring videogame spaces to gaining advantage over enemy players.

Although not one of Calleja's theoretical influences, we can trace a possible connection of the rationalised spaces of the videogame with the rationalised spaces of modernity and their aptness for cognitive mapping famously contrasted with postmodern hyperspace by Fredric Jameson in 'Postmodernism' (1991). If late modernity lacks navigable spaces and legible systems then the valorisation of gamic space by Calleja as connected to the pleasure of travelling or navigating between different in-game geographies can be positioned as a compensatory gesture productive of a form of 'cognitive mapping.' Jameson's idea that the disorienting and chaotic spaces of late modernity need to be combatted with a cognitive map stresses that a form of oriented subjectivity is required that effectively anchors the subject in political terms as a predicate for any form of political resistance. The pleasurable orientation that occurs in Calleja's understanding of the spatial pleasure of videogames, therefore, can be contextualised as an acting out of the desire for a cognitive map in simulated space. Here, the rationalised nature of videogame space provides a context for travel no longer possible in our current historical moment and can be understood as a kind of cure or at least a stand-in for the disorientation that is the hallmark of postmodern hyperspace. Calleja's approach to videogame spaces and their pleasures is marked by an implicit valorisation of the travel and mobility that these environments afford in terms of solving the problem of disorientation. However, positioning player actions as simple expressions of agency renders them estranged from the political, cultural and economic values that are always implicit in our actions.

In her article 'Games as Inhabited Spaces', Bernadette Flynn positions the experience of playing videogames as 'grounded in immersive aesthetics, maps, tours, modes of navigation and geometric landscapes' (Flynn 2004: 54; See also Fuller and Jenkins 1995). For Flynn, as in Calleja's work, we can see our interface with videogame space in terms of the flow of the encounter with those aspects that allow the player to take on the implicitly heroic role of explorer or cartographer.

However, in a departure from the uncritical tenor of Calleja's work, Flynn positions the player's ability to generate spatial pleasure through movement as 'not a culturally neutral or benign position but ... [one that] extends ideologies of spatial conquest and frontier myths' (Flynn 2004: 57). For Flynn, 'The colonialist play of "who gets to go where" and "who gets destroyed in the process" is entrenched in the fabric of computer-based spatial engagement' (2004: 57). In this critical characterisation of gamic spatial involvement, the cartographic projects of colonialism as a mode of inscribing spatial authority and hierarchies of racial and cultural status transfers to the context of the pleasures of spatial involvement in videogame spaces. The FPS can be situated as productive of environments that encourage the player to cover and master their territories – to go anywhere and do anything – like a cartographer sent to map, rationalise and claim a space analogous to an unknown other or 'dark continent'. If we take Flynn's position one step further, we can suggest that by colonising the geometry of the videogame, the player is not only able to play at being a kind of cartographer who masters and claims ownership over the space of the game but is also endowed with a sense of mastery over their in-game body and destiny.

Flynn's work stresses that spatial pleasure in videogames is never free of political values. This thesis approaches the multiplayer 'maps' of the military FPS as a spatial situation where the dynamic of being lost and finding one's way proliferate, but rather than being attached to the pleasure of engaging in explicit acts of navigation, trajectories of travel are mobile, fractured. This is because I approach navigation in the FPS not in terms of getting from one place to another, but where destinations become indistinct from the bodies of enemy players. In effect, shooting the enemy who is not only a mobile target, but also a threatening agency, ensures that the space can never be known and challenges the whole idea that games immerse the player via spatial pleasures. In the FPS, the pleasurable dynamic between being lost and finding one's way is translated into the mobility and unpredictability of the threats that the player must map. The fact that these trajectories of navigation end at either success (of shooting an enemy) or failure (by being shot) means that the pleasure of space is reconfigured as the neutralisation of its threatening potential to affectively shock the player. This not only suggests that spatial pleasure must be approached in terms of its specific values as Flynn argues, but queries whether pleasure itself is the guiding principle behind the player's spatial involvement.

2.2.2 The production of videogame space

Laurie Taylor has argued that 'video game spaces are more than simply the sum of their code — they are experiential spaces generated through code and the player's interaction with the execution of that code through the medium of the screen' (Taylor 2003). In other words, videogame spaces are at once fully rendered and rationalised arenas like the FPS's multiplayer maps but are also products of the player's actions and the screen-based visualisation that these actions produce (see also Väliaho 2014: 33). The idea of 'experiential spaces' as products not only the particularity of the player's encounter with the environment generated by the game, but by the medium of the screen is an important lesson explored in the chapters that follow. This thesis stresses the way the player's experience of videogame space is conditioned by the screen and its clear relationship with other visual cultures operating in the West. As the player navigates and simultaneously produces FPS spaces, they do so quite literally through the frame of Western aesthetic traditions, from renaissance painting to the cinema, and via the various elements that are attached to this screen in the form of an HUD (see Friedberg 2009). This can contain pictorial elements such as the crosshairs at its centre and a live GPS-like 'mini-map' that reimagines and tracks the player's movements.

Taylor's point is analogous to Henri Lefebvre's (1991) concept of the social production of space, where the bare dimensions of environments (ideal or mathematical space) are superseded as the object of analysis by how these spaces are experienced and produced. For Lefebvre, 'The social and political (state) forces which engendered this space now seek, but fail, to master it completely; the very agency that has forced spatial reality towards a sort of uncontrollable autonomy now seek to run it into the ground, to shackle and enslave it' (1991: 22). Key in Lefebvre's understanding of space is the fact that its processual and embodied production becomes endowed with political values and as a site of tension between the desires of authority and forms of resistance. In terms of the FPS, only by grappling with how the player's lens on the game's space is mediated by screen, HUD and the actions of enemy players can a secondary set of conditions bracketing the player's production of the space via their actions be produced.

Drawing on Lefebvre, Edvin Babic has argued that the production of space is in videogames is 'relational', concluding that:

Insofar as the design of space in computer games loses its impact on the players' perceptions and actions, players can produce different maps of individual and collective spaces that coexist and overlap. (2007, para.21)

Here, space is brought into being as a set of relations or a 'map' between the static elements and the agents that inhabit and experience it. In other words, space becomes a product of movement and the relationships that it produces. Its given form, whether a piece of physical architecture or a computer-generated environment, does not emerge from its bricks and mortar or polygons, so to speak. Rather, it is this performance of the space that brings its properties to light. Lev Manovich has stated that 'rather than considering only the topology, geometry and logic of a static space, we need to consider the way in which space functions in computer culture – as something traversed by a subject, as a trajectory rather than an area' (Manovich 2002: 279). This means that the spatiality of the FPS must be read not only in terms of the logics of their multiplayer maps, but specifically via the kinds of movement trajectories that these spaces produce.

If we are to understand how videogame spaces are produced in political terms, we must attend to the actions that take place within them and to the screen as the perspective or window through which these actions are realised. This thesis understands FPS multiplayer maps in exactly this manner, by charting player actions first and foremost and reading these movements as realising the game space as something that come to light via player actions which have political values. To make this kind of analysis possible, the specific conditions of the interface must be established. However, an acknowledgement that the player is also undergoing a form of training, and therefore change, also demands an acknowledgement that this process of this habituation functionally alters game spaces. The player's production of space is thus never fixed in their imagination, but alters as they engage with it bodily whether through reactive twitch-like gestures (Chapter 4) or via the acquisition of new skills or habits (Chapter 6).

2.3 The FPS: genealogy, identification, body

The FPS appears to incite critical work because of its capacity to visualise and in some sense intercept and manage the player's perception and sense of embodiment in a more 'direct' manner than either well-established moving image cultures or other genres of videogame (see

Morris 2002). Whether figured through the concept of immersive 'gamic vision' (Galloway 2006), cybernetic simulation and its effects on experience (Crogan 2011), expressive of a moral panic over violence derived from ideas of media effects (Penny 2006) or a more abstract and nuanced training of the body (Ash 2013, Väliaho 2014), the discernible common thread is the form's apparently more direct correlation with the embodied perception and mental states of the player – a raising of the stakes of playing videogames.

2.3.1 Gamic vision: Identification, immersion, apparatus

The main thread connecting the works discussed in this section is the way the marriage between on-screen movements and the player's manual gestures are understood to form a conduit of cause and effect between player and game, which is productive of a sense of identification between the body/psyche and the apparatus. In 'The Language of New Media,' Lev Manovich notes that:

most new media, regardless of whether it represents to the user her image or not, can be said to activate the narcissistic condition because they represent to the user her actions and their results. In other words, it functions as a new kind of mirror that reflects not only the human image but human activities. This is a different kind of narcissism – not passive contemplation but action. (2002: 235)

Manovich's evocation of the language of psychoanalysis here is striking and suggestive of the continued influence of the axis of Freud and Lacan and related theories concerned with the cinematic apparatus produced by Jean-Louis Baudry (1974) and his protégé Christian Metz (1982) upon thinking about so-called new media. This despite the justifiable critiques of many of the basic assumptions of these ideas in the corporeal turn in a wide range of humanities discourses, particularly in the context of film studies, beginning with Steven Shaviro's work *The Cinematic Body* published in 1993. Shaviro characterised psychoanalytic film theory as a 'phobic discourse' (1993: 15) in which the platonic idea that the cinematic image both lacks and stands in for the fullness and truth of perception represents an attempt to mitigate the theorist's fear of its 'weird fullness' and affective and corporeal power.

When Manovich hails the 'new mirror' of new media, he does not simply recall the reflective surface of Lacan's mirror stage, he evokes that 'old' mirror of the cinema's screen – that

voyeuristic mirror in which 'the spectator is absent from the screen as *perceived*, but also...present there and even "all present" as *perceiver*' (Metz 1982: 54). Foregrounding Manovich's use of an essentially Lacanian lexicon in the reference to the mirror-screen metaphor and the role that narcissism plays in the production of the ego and subject so critical to apparatus theory signals the continued influence of theoretical discourses that have been at best qualified and at worst discarded in screen theory (see Shaviro 1993). However, as in Manovich's characterisation of new media, the works discussed below also relate to psychoanalytic models of the relationship between player and screen, albeit in highly modified and sometimes indirect form which privilege action, rather than the dream-like gaze of the spectator as conceptualised by apparatus theory.

Primarily centring on the production of a sense of identification between the cause and effect relation between the movement of the in-game camera and the player's vision, these works (Galloway 2006, Morris 2002, Taylor 2003) attempt to schematise how the player becomes present, or immersed within the environment displayed on the screen. No longer is the player looking omnipotently and voyeuristically via the gaze's identification with the camera controlled by the apparatus. Rather, a mirror for identification is created in which the player is projected into the space and their presence and likeness is confirmed by the apparatuses capacity to mirror their actions.

In his now canonical chapter 'Origins of the First-Person Shooter' (2006), Alexander Galloway situates the FPS within a genealogy of what he terms cinema's first-person 'subjective shot' and contrasts this marginal film aesthetic with the FPS as an action-based first-person form of vision. The author argues that subjective shots represent an explicit gesture of colonisation in respect to the spectator's phenomenological vision, which cancels their capacity to identify with the image. In contrast, the FPS is conceptualised in a binary relation to this 'failed experiment' in film aesthetics in which the relationship of cause and effect between the actions of the player and the movement of the perspective produces a form of identification. Galloway's claim regarding the FPS's production of 'gamic vision' represents a valorisation of technological progress as a 'universal driving force' (Zielinski 2006) where the action-based technological present of the FPS is understood as a teleological solution to the limitations of an aesthetic form limited by the cinematic medium that is implicitly characterised as something belonging to the past.

This appeal to notions of progress and the connected adoption of the idea of a definitive break between 'old' and 'new' media via the idea of interaction has come under increasing pressure in recent years, with an entire field in Media Archaeology militating against such approaches that demonstrate a disregard for the complex past of media forms and their uses (see Huhtamo and Parikka 2011: 1). As we shall see, the FPS's genealogical connection to the cinema is by no means the only narrative tracing its origins as competing lineages are also being proposed, particularly that of information technology and cybernetic simulation (see Crogan 2011).

Despite the uncertainty in tracing an origin for the FPS, there are important technological and aesthetic overlaps between it and film aesthetics; the gaze rendered as a shot, the operation of the frame as a means of limiting and delineating the field of view, the production of a mimetic diegetic world as a techno-cultural formation of 'the real', and so on. Indeed, this study spends considerable time reflecting on the nature of the digital and gestural dynamic of the FPS in relation to the cinema. But rather than considering this relationship in terms of the FPS addressing the limitations of film and film spectatorship, my work focusses on the way that the form actively remediates it.

A key part of Galloway's argument for a definitive break between the FPS and the cinema lies in his analysis of space and time. For Galloway, 'gamic vision requires fully rendered, actionable space... [that is] ...exhaustively explorable.' (Galloway 2006: 63–64). Gamic vision is predicated on the production of seamless gamic spaces in which these movements can occupy and cover. The necessity for fully rendered environments in all videogames rests on the capacity for the player to both exert control over movement within the visible field and, in genres such as the FPS, to alter the perspective itself by directly moving an in-game camera. The FPS, perhaps more than any other genre, exploits the capacity to exceed the limited, framed borders that screen technology imposes by allowing direct control over the perspective, now sutured with a field of view (see also Lahti 2003). This is because the player can not only alter the visible field, and thus explore the environment by moving through it, but also has the potential to pan the in-game camera across the space independent of these movements in a phenomenological analogue of the relative independence of twisting and leaning neck movements and locomotive movements of the body through space.

However, absent in Galloway's conception of FPS space as 'fully rendered' is the fact that this rendering operates to encase vision and action within a fully authorised and fixed environment at the very moment that it appears to set it free. This is one of the reasons why the use of the term 'map' in gaming parlance to refer to the FPS's multiplayer spaces is such a potent semantic clue, because it alludes to the way the apparently mimetic three-dimensional space of the game and its possibilities for action have been created by an authority external to the player and realised through a systematic form of calculation. Galloway's cinematic framework reveals the way the FPS can break from the spatial constraints of a previous medium's attempt to produce a first-person moving image. However, because of the interpretive narrowing that this approach entails, the critical scope of Galloway's argument halts at the threshold of his characterisation of cinematic space and gamic vision and fails to consider both the fact and the possible implications of fully rendering an environment as a kind of fully calculated map.

This tendency to read the FPS's spatiality in broadly utopian terms is replicated in Galloway's consideration of the related issue of its temporality. In perhaps the key claim of his chapter, he argues that:

Where film montage is fractured and discontinuous, game-play is fluid and continuous. Hence gamic vision is similar to human vision in ways that film, and television and video, for that matter, never were. (Galloway 2006: 65)

This statement attempts to triangulate cinematic, gamic and human vision along with polar temporal characteristics of fluidity and fracture that has implications the way Galloway appears to view the operation of each of these complex renderings of time. In describing film montage as 'fractured and discontinuous', Galloway appears to dismiss the power of continuity editing as a mode that has traditionally been understood as functioning to occlude cuts and operate below the awareness of the spectator (Kawin 1992: 100). As identification is such a central concept to Galloway's chapter, it is also surprising that there is no reference to the way spectatorial identification has been theorised particularly in terms of the 'suture' of visual fragments in cinematic editing (see Heath 1977).

Although, no concept of human vision is referenced or established by Galloway, we can infer from the quote above that the visual sense is being characterised as inherently distinct from its technological milieu, which is itself read as engaged in a progressive trajectory towards capturing and reproducing human phenomenology. What we see in Galloway's chapter is a kind of reversal of the work by various authors that emphasise the way the senses and concepts of humanity more generally are constituted by technology in the form of 'technics' (Stiegler 1998, Rotman 2008, Parikka 2012) and by political and historical forces (Benjamin 1999, Crary 1992). For Galloway, the human and the cinematic exist in radically different and unbridgeable relations regarding the connection between visual perception, action, space and time. Within this context, any fragmentation in the temporal flow of vision is situated as a deficiency. While I am not dismissing the relevance of the lack of editing and the construction of fully rendered actionable environments and temporalities as founding conditions for the FPS as a kind of development in moving image culture, positioning these changes as specific solutions to cinematic problems and a return to a more essential form of vision is problematic.

While this thesis shadows elements of Galloway's work in suggesting linkages to existing conventions in visual culture such as the cinema, renaissance perspectival construction and cartography, my work takes the aesthetic becoming of the form as a system that incorporates and visualises bodily gestures. This interest in the minutiae of the player's gestures is combined with an analysis of the graphical elements of the HUD, like the crosshairs and the mini-map in Chapters 4 and 5. In my analysis, I attempt to map not the fact of identification and immersion as a basic condition of the genre, but as outputs of reactions that the games I analyse incite, for example, aiming and firing being a more concrete instance where the player passes into the game with the velocity of a virtual bullet.

Like Galloway, Susan Morris (2002) has also centred on the issue of identification with the FPS's perspective, suggesting a transition from a passive gaze to an active control over the movement of the image, producing 'a sense of immersion and primary identification far greater than that established in relation to other screen media' (2002: 90). Although the connection between identification, action and immersion is almost identical to that proposed by Galloway, Morris explicitly maps the role that action plays in immersing the player within the game's multiplayer maps regarding Metz's concept of 'primary identification' which involves the spectator in

identifying with the 'absent' gaze of the camera, producing the illusion of what Metz calls 'an all-seeing and all-powerful subject' (Metz 1982: 48). The importance of the spectator's fantasies of power and mastery to apparatus theory is something that Morris (2002) applies to the FPS. However, rather than adopting the gaze of the camera as spectator's own, it is the capacity for the FPS player to act and perceive within FPS environments or maps by moving the camera that produces this sense of mastery in Morris' work.

She goes on to note that 'In the game, players can see themselves as producers of the fiction (despite the authorial stamp of the game's programmers and designers of the game's engine and graphics) because of their active role' (Morris 2002: 90). Unlike Galloway's depoliticised concept of gamic vision, Morris' work attempts to explain the connection between action, agency, identification and immersion within the FPS's spaces as a form of psychic manipulation via Althusser's concept of interpellation (1971). This acknowledges that processes of identification – whether predicated on the adoption of a transcendent gaze or on the connection between action and immersion – are never free of political values. However, Morris' choice in patterning her analysis on an Althusserian (1971) model of power has implications for her reading that need to be unpacked. In his chapter 'Ideology and Ideological State Apparatuses' Althusser argues:

Ideology 'acts' or 'functions' in such a way that it 'recruits' subjects among the individuals (it recruits them all), or 'transforms' the individuals into subjects (it transforms them all) by that very precise operation which I have called *interpellation* or hailing, and which can be imagined along the lines of the most commonplace everyday police (or other) hailing: 'Hey, you there' (1971: 174)

Morris tacitly positions the FPS as an ideological state apparatus, which 'hails' the player and thus produces them, via their response to this hailing as a particular kind of subject by ideology. In Althusserian terms, the player makes a move from being an individual to becoming a subject because of their interaction with the game. Morris sees evidence of interpellation being replicated in the social elements of play, particularly acts of linguistic communication between players, noting that 'player communication in multiplayer games sometimes takes on an element of the aggressive quality game's pre-programmed statements' (2002: 94). While these interactions between players provide a certain concreteness to Morris' analysis, the activity of the players within the game remains unaddressed. The capacity of the game to incite, produce

or otherwise intercept player actions as the site where this process of interpellation occurs remains secondary to more obvious and legible evidence of this process.

This thesis argues that while FPS provides a context in which the player is constituted as a subject, this constitution is not produced by the explicit imposition of an external authority but by the production of an insecure context in which the player must act to assert their place in the game. The centrality of action to videogames means that the Althusserian (1971) concept of the relationship between apparatuses and ideology represents a poor fit with the experience of play. Rather, this thesis progresses with the idea that the player is placed in a context in which they are encouraged to actively constitute *themselves* as a subject — not because of a misidentification with the image which is controlled by an invisible author, but by the expression of their authority in respect to the game and enemy players. The FPS as an apparatus, therefore, does not simply hail and subject the player to its authority, it establishes a more general context in its spaces, movement affordances and graphical interface that incites the player to actively produce themselves as a subject.

The model of subjectification utilised by this thesis owes more to Foucault (2008) and Esposito's (2008, 2011) work in charting neoliberal values of self-determination, competition and insecurity now dominant in the West. This idea that the player needs to be understood in terms of self-constitution does not suggest a return to a concept like Galloway's 'gamic vision', in which a kind of liberated player can act unhindered by the game's political values. Rather, that the politics at play need to be characterised in terms of those operating in the production and consumption of the contemporary FPS —not in a directly subservient relation to power, but as an active entrepreneurial venture whose conduct is only ever governed and regulated at one remove.

Morris closes her chapter by noting: 'To rephrase Baudry, the FPS computer game can be seen as affecting an artificial psychosis that gives the player the illusion of full control' (2002: 95). Rather than producing an artificial psychosis and an illusion of mastery, this thesis takes the position that the FPS puts the player in a situation of intense vulnerability legible in the player's corporeal gestures that twitch and jerk the in-game camera. I suggest that the FPS activates a tension between the illusory 'full control' of the cinematic gaze and what James Ash has

characterised as the opposite operation of videogames in giving the player a pervading sense of being lost (2010: 14). I understand the FPS as invoking not a total disorientation or total mastery, but a kind of dialectic of insecurity and mastery that takes shape as a form of aggressive self-defensive behaviour. On the level of the relations between different image cultures, if the player is vulnerable, then they are vulnerable not only in terms of the ludic stakes of winning and losing, but insecure in terms of the precarity of their constitution by the apparatus that now depends on their activity.

In both Galloway's (2006) and Morris's (2002) work, the key claim is that the active first-person perspective produces a sense of immersion within the FPS' multiplayer maps. The point here is that the FPS is approached in terms of how the first-person perspective can blur the distinction between player and apparatus in a way that is specific to the point-of-view, perhaps because action remains a consistent feature across diverse videogame genres. From third-person action games, (such as Naughty Dog's *Uncharted* series) to real-time strategy (RTS) games where the player controls huge armies (like the long-running *Total War* series by The Creative Assembly) action remains central but issues of identification remain less prominent in the literature.

2.3.2 Identification problematised?

Drawing on the same Lacanian (2006) psychoanalytic framework that runs through apparatus theory, Laurie Taylor (2003) has argued that the absence of an avatar in the FPS's perspective means that the player 'is able to function *on* the space, but not *within* the space' (2003). For Taylor, the videogame player requires an image of a body upon which to project their sense of self. In Taylor's analysis of the gaze of the in-game camera in third-person videogames, the perspective operates to place the player's narcissistic mirror image (or avatar) in the game world, abstracting them from their embodied position in the actual. Here we might draw a connection between Taylor's analysis and Mulvey's (1975) claim regarding the spectator's narcissistic identification with on-screen characters and their inter-diegetic looks in the cinema. Within Taylor's reading (2003), therefore, the FPS player's perspective being merged with that of the camera fails to provide a mirror image in the form of an avatar, making the formation of an ego ideal and ideal ego impossible in Lacanian terms.

This insistence on a mirror image of a body appears to dispense with or elide the various ways psychoanalytic film theory has theorised how the spectator comes to identify with the image as a kind of idealised vision (Baudry 1974), the camera as productive of primary identification (Metz 1982), or of one of cinema's male gazes (Mulvey 1975). It also cuts against dominant lines of thinking on the immersive capacities of the FPS predicated on the idea of a mirror of action articulated initially by Manovich above. Taylor's claim that the player acts on, rather than being immersed within, the game's maps suggests the production of a surface separating the vision and psyche of the player and the FPS's three-dimensional spaces. Without prefiguring the coming analysis, there are elements of the FPS image, like the HUD – a consistent convention of the FPS from id's *Wolfenstein 3D* (1992) to the same developer's 2016 reboot of *Doom* – that appear to back up the idea that the HUD is an internal space or lens separate from that of the game's environment. The dialectic of inside and outside that the construction of surface and depth produces is an important element of my approach to the first-person perspective developed in Chapter 4 in which the FPS produces a kind of body (see Crick 2010) for the player, one apt for training and aligning with Foucauldian thought (1991).

2.3.3 The FPS, cybernetic simulation and violence

Drawing on an idea of Foucauldian discipline, Simon Penny has characterised FPS games – such as id's *Doom* and *Quake* – as simulations apt for the purposes of training a kind of seek and destroy or killing mentality in the FPS player; hardly what Foucault (1991) would call a 'docile body'. Penny (2006: 75) connects these games to the US military's development of computer-based SIMNET and STOW combat simulations in the 1980s and 1990s. This linkage between military simulations and the FPS is most striking in Penny's observation that the wildly popular *Doom* was licensed by the US Marines for the purposes of combat training. Randy Nichols has also more recently noted that games such as *America's Army* (2002) are powerful military recruitment tools which have 'proven the efficacy of simulation for training both soldiers and personnel' (2010: 49). Joel Penny (2010) has also written in this vein about *Call of Duty*, suggesting it is an armature of the soft power of the US military. In Simon Penny's chapter (2006), there is a bleed-through between the context of the training of the shock-troops of the US Navy and domestic space of the home PC. This suggests the pervasive production and influence of a broader milieu of structural violence in the form of the 'military-entertainment

complex' understood by Lenoir and Lowood (2003) as the symbiotic relationship between games and cinema industries and the complex web of private and government agencies involved in the procurement processes for the US military.

Penny's chapter is highly influenced by the work of David Grossman (1996; Grossman and DeGaetano 1999) who argues that representations of violence in videogames and the cinema, as well as training the act of aiming and firing are drivers for gun-violence in the United States. Grossman claims that 'when the children play violent videogames, they're drilling, drilling, drilling [like soldiers] – not two times a year – every night, to kill every living creature in front of you' (cited in Penny 2006: 77). Here the argument is twofold: first, there is a claim that representations of violence have a desensitising effect that leads to a direct relationship with its perception and realisation outside of the sphere of representation. And second, there is what James Ash has called (following Heidegger) a sensitisation or 'attunement' (2013) to the act of aiming and firing, capacities that are positioned as essential behavioural modifiers that function to neatly explain the spree-killings of Columbine in 1999 and Jonesboro in 1998.

Penny (2006: 76-7) establishes this seemingly common-sense connection between the representation of violence, the act of aiming and firing and acts of violence in the actual as a rebuttal to Lantz and Zimmerman's (2010) explicitly ludic reading of *Quake*, id's multiplayer-focussed follow-up to *Doom*. Their defence of *Quake* as having more in common with tennis than cinematic representations of violence does indeed seem like an attempt to swerve critical readings of the genre. However, in the context of Grossman's (1996; Grossman and DeGaetano 1999) attempt to tidy away complex events, like Columbine, into a sealed box labelled 'violent videogames', the motivation for this defensive reaction is hardly difficult to understand. Penny, following Grossman's lead, goes on to claim that:

...according to the logic of the game, that any approaching stranger is an enemy and must therefore be blown away immediately...Such learned behaviours are triggered without conscious decision making. (2006: 82)

This is a reprisal of a hypodermic model of media effects encapsulated by Harold Dwight Lasswell's (2004: 49) 1927 claim that allied propaganda in the First World War operated as 'a subtle poison which industrious men injected into the veins of a staggering people.' There is an

obvious ahistorical element to Penny's work in the sense that spree-killings have a complex history that predates the FPS and crosses national, cultural as well as historical boundaries. Grant Duwe (2007) has produced a comprehensive study of mass shootings in the United States, the long history of which forecloses any direct relationship between these crimes and the FPS. Duwe is at pains to note the significance of complex social factors, as well as the media's role in reporting crime and creating moral panics that have popularised and crystallised the notion that such events are unique to contemporary life. Penny (2006) attempts to explain events that have complex psychological, social, cultural, legal, philosophical and economic drivers with a simple swipe of the technological determinist's brush.

However, his reading (2006) of the FPS as a cybernetic simulation with a lineage that is entangled in military technology that alters or trains the capacities of the player remains an important starting point for any investigation into the power of the FPS as a subjectifying apparatus. Crucially, Penny's approach liberates the FPS from a ludic framework that seeks to downplay their social and political significance and emphasise their game-like qualities. In effect, although Penny's conclusions appear to propose a rather simplistic hypodermic relation between a representation, player action and the effects of the establishment of this cybernetic loop on the playing subject, his work underscores the political importance of the form as one that always exceeds the act of playing.

2.3.4 Cybernetic experience

As a point of overlap with the militaristic or violent effects of the FPS characterised as a simulation discussed above, Patrick Crogan (2011) has produced a genealogy of the FPS as a cybernetic system with a programmatic effect levied upon player experience. His work can be understood as counter-history to Galloway's (2006) cinematic lineage of the form, which eschews aesthetic concerns and attempts to situate the genre as a techno-cultural form that emerges specifically from military research and development of information technology. However, where Penny (2006) and Nichols (2010) figure the FPS videogame as a deathly technology in the sense that they represent training simulations productive of killing behaviour, in Crogan's work, death appears as a more abstract concern, entailing the withering of player experience and potentiality.

For Crogan, the FPS's 'origin' lies in experiments conducted by the mathematician and founder of cybernetics Norbert Wiener in 1940 (2011: xxi). Crogan (2011: 4) characterises Wiener's AA predictor as a technology predicated on the development of a predictive cybernetic system that consisted of a modelling all the elements in play – from the mechanical certainties of the input lag inherent in the aircraft controls at the time, to the human operators of both the aircraft and the gun emplacement on the ground. In foregrounding Wiener's work, Crogan suggests that the FPS should be read as a rendering of the player as part of an information system, with consequences for experience and conduct of those inculcated within these linked apparatuses. In this sense, Wiener's work can be characterised as part of the quantitative calculation of life (see Foucault 1998) that takes partial visible form as a pictorial moving image in videogames. This visual turn means that there is a degree of overlap between the cybernetic system mapped as a form of screen-based entertainment and similar mathematising tendencies of both the image and viewer in image cultures as diverse as renaissance perspectival construction (see Panofsky 1997), cartography (Harley 2001) and the cinema (See Rabinbach 1990 Väliaho 2010). While I am not proposing a kind of direct historical continuity between these forms, one of the major themes of this thesis is tracing how, in the context of a mathematisation of experience, these calculated images with their equally calculated effects are enveloped within and remediated by the FPS. Here the genre is considered as representing both a rupture and a topos (see Huhtamo 2011) of the desire to render the real world via calculation.

Early in his monograph, Crogan identifies the goal of cybernetic systems as the achievement of the 'technocultural temporalization of experience' (Crogan 2011: 6). In other words, cybernetics seeks to imbricate experience within its own abstract informational model of reality. The deeper logic of this calculation and temporal management of experience comes to light as an attempt to exert an authority over time. To master time is to manage and dominate potential in a manner that raises doubts over the condition of experience and its connection to conceptualisations of human life as being capable of actions in thought and movement (which exceed the power of computational modelling).

Importantly, within this context, the power of information is understood not in terms of its abstraction from the material world, but in terms of its immanent feedback with it. Cybernetics is not involved in producing an imaginary illusion that shapes the subject, it takes hold of the

body, comprising its range of movement, bracketing the scope of its actions. This focus on flesh and blood effects makes contextualising the FPS in terms of cybernetic simulation a particularly useful lens for expanding upon the limited scope of the ludic and narratological, and even the cinematic frameworks discussed above. In part this is because Crogan's genealogy relocates the origins of the FPS from the history of games, narrative and visual forms and situates them squarely in terms of the governance of the player by powerful techno-cultural forces such as the US military. By identifying experience as the primary target of the FPS, Crogan elucidates the high stakes involved for players both as they play and in terms of a patterning and forming of the capacity to access the reality in more general terms.

In understanding the FPS in terms of cybernetics, this bracketing and foreclosing of potentiality by calculated possibilities takes on the character of an apparatus or dispositif of power in respect to the future itself. Massumi has claimed the digital's 'enormous power of the systematization of the possible' (2002: 137). Through this, the object of the information system's control is always organic, and expressed in flesh and blood. However, when the apparatus represents 'a modelling of reality for the purposes of automating lethal control over it' (Crogan 2011: 91), the question raised is the extent to which modelling the enemy or target as an essential a priori element for this model is determined not only by the desire to exert lethal control over this threat but also on the reproduction of the danger that it poses. In short, the system, as a model of reality, is one that is constituted not only by the prediction of an unruly and potentially dangerous other and its behaviour, but also by the perpetuation of this threat. In this way, it could be argued that the raison d'etre of cybernetic systems lies in the repetition of the production of ever more threatening possible futures for processing and neutralising by the body captured and shaped by its power. In broad terms, the threat posed by the future is the enemy (just as the future is its enemy), but also the lifeblood of cybernetics. This suggests that the real target of this future-proofing technology is not in the successful eradication of the threats coded into its simulated reality, but, rather, in the human element it is designed to assist and ultimately protect.

Crogan's work in reading the FPS as a translation of cybernetic values into the sphere of entertainment foregrounds issues of player habituation and control and can be connected to both the Deleuzian concept of difference (2004) and Foucauldian ideas of neoliberal

governmentality (2008) that provide much of the theoretical framework for this thesis. However, because his work is primarily concerned with situating the FPS within a cybernetic genealogy, the way the player is incited by what Aarseth has called the FPS's 'cybernetic loop' (Aarseth 1999) and acts within this context is beyond the scope of his work. In this sense, this thesis's analysis begins where Crogan's genealogy ends. This desire to get to grips with the specifics of how the FPS influences the player immanently and with an eye on contemporary neoliberal governmentality has much in common with Pasi Väliaho's (2014) recent chapter 'Future Perfect: First-Person Shooters, Neuropower, Preemption'.

2.3.5 The politics of the FPS

Väliaho charts the way *Call of Duty: Modern Warfare 3* (2011) produces a contingent context of threats that energises a primal desire to survive. This motivation is articulated in specific relation to emerging discourses of neuroscience that understand the brain as an adaptive system that operates to continually simulate and predict the world around us, a conceptualisation of the human body that appears to model itself after the logics of cybernetics mapped by Crogan as discussed above. In this way, the anticipatory brain is a plastic mechanism that adjusts to different environments and conditions, but one that is driven by a single unchanging urge — survival. The FPS is understood here as a context in which these dynamics of survival and preemption are reified and played out by a 'cerebral subject'. However, it also consists of a form of training in which our contemporary biopolitical context of deregulated dangerous environments in which only the most adaptable survive is both mirrored in conceptions of the brain and reproduced by the FPS.

In effect, to understand how the FPS operates, Väliaho constructs a model that frames contemporary conceptualisations of what a human being is. If the FPS manipulates the player, then, of course, a workable concept of this figure is required. A key connection in this endeavour is recent work by Alva Nöe (2006) that attempts to understand the way perception and movement are co-dependent rather than separate capacities. Echoing Nöe, for Väliaho 'players are constantly seeking different ways of inhabiting and acting in the environment, and what they perceive as space varies per their mobile and enactive viewpoint' (2014: 35). The space of the game is only produced through player movements; it is perceptual and sensorial in its construction.

These movements are key to Galloway's suggestion that the FPS produces an immersive gamic vision. Rather than valourise immersion, Väliaho adopts Oliver Grau's (2003: 13) characterisation where it is figured as a state in which the capacity of the player to critically reflect on their experience is overwhelmed by the immanent perceptual and physical demands that the game makes of us. For Väliaho, 'the screen's animations resonate within the intimate interior of the gamer's bodies' (2014: 29). This creates a situation in which the images displayed on-screen as a notional exterior cross into the body of the player just as the player's actions manifest in gestural changes in the visible field. A kind of merging of apparatus and player is achieved in which the operating necessities of the game and the behaviour of the player culminate in the FPS's image as a point of merger between the two. The issue then becomes one of attempting to measure the balance of force between player and game in producing both the game's aesthetic and the behaviours and sensorium that it articulates.

For Väliaho, players introduce 'style and learned skills but also imperfection, interruption and randomness to otherwise predictable, functional and self-repetitive universe of computer codes and rules' (2014: 31). This means that he does not figure the FPS as a totalising apparatus of control. If we consider the fixed code as a closed system, then Väliaho suggests that not only are players able to open these spaces virtually, but that actions can enter FPS environments producing difference in a Deleuzian sense (see Deleuze 2014). This suggests the FPS can generate player actions and affirmative readings on the part of the theorist. As a vital counterbalance to this suggestion, Väliaho's chapter sets about mapping the factors that manage and regulate these movements that are both neuroscientific and political (2014: 58). Väliaho suggests the capacity for a kind of gamic vision, but rather than seeing this as a form of end-point of mobility as does Galloway (2006), he seeks to understand the way it is bracketed by the game's mechanics that both reflect and produce a political subject within biopolitical neoliberal cultures.

In this sense, Väliaho's work answers my main critique of Galloway's chapter by constructing a model that explains how gamic vision is regulated and controlled. My question here would be whether player actions can ever be considered random and capable of introducing openness to the FPS, especially considering Crogan's (2011) work. This thesis takes the approach that player

actions, while capable of being expressed in near infinite variation, are essentially enclosed by the possibilistic (Massumi 2002) nature of digital technology. The potentiality that the idea of randomness suggests means that for Väliaho, the game acts to shut down openness dynamically in the process of governing play. My thesis understands the FPS as a situation in which change that is not in some sense pre-approved and regulated by the game is excluded from the outset on philosophical grounds. This contrasting characterisation of the FPS does not suggest an unbridgeable gap between my work and Väliaho's. Rather, the classification of FPS environments as threatening spaces and the resulting anticipatory actions that follow are a key influence on this study. Also considered is a common desire to ensure that the politics of the FPS do not go unattended, which inevitably leads to a consideration of it considering our contemporary biopolitical and neoliberal systems of governance.

James Ash (2013) has written about *Call of Duty 4* in terms of a broadly Heideggerian notion of affective attunement. Ash takes the idea of training and affectivity as a numbing or desensitising regime and turns this idea on its head, instead insisting that we view the FPS as an activity that produces a vulnerable and sensitised body required for the attainment of new somatic and analytical skills. He identifies the spatiality of *Call of Duty's* multiplayer maps as characterised by their capacity to intensify contingency and vulnerability in novice players. Theses intense spaces are productive of certain kinds of repetitive behaviour: coping mechanisms that habituate the player's physical capacities to those demanded by the game.

Ash's notion of somatic attunement (2013: 36) relates to the kinetic and haptic corporeal skills required to play the game successfully, most obviously, the coordination of hand and eye (screen movement) required in moving the crosshairs across the game's spaces. These combinations of manual and ocular movements are inculcated into the player's body memory, non-conscious gestures that cut across different FPS 'franchises' and even across different videogame genres. Penny's (2006) argument above notes the way players are disciplined by FPS games to shoot and kill in an automatic or non-conscious manner. The fact that FPS games train certain actions and capacities at the expense of others seems self-evident; for example, players become more adept at aiming and firing over time.

Where Ash complicates this purely corporeal form of training is in the concept of analytical attunement (2013: 38). Here, the player's experience, particularly their spatial experience (and ability to cognitively map the game space and its sight lines), their ability to map enemy player habits, avoid or otherwise exploit 'choke-points' and 'killzones' drives them to behave in a complementary dynamic with their gestural (or somatic) skills. With both somatic and analytical attunements, the key issue is that the player's vulnerability signals the opening of the body to regimes of training that sensitise and map the corpus to the needs of the game. This idea that the modulation and mapping of the player's body by the game space (and the movement capacities of the POV) rests not on a closing of the body to sensation, but on an opening, is a key move in understanding how a game such as *Call of Duty 4* can map the player. For Ash:

to gain competence with *Call of Duty 4*, one has to open up one's body and become affectively vulnerable... this sensitivity becomes internalized into the body as particular forms of somatic and analytic attunement. (2013: 45)

Ash's insistence that FPS games are involved in a sensitisation of the body is an important intervention in dominant narratives of numbing and habituation as a loss of sensitivity, particularly evident in the notion that players are desensitised to violence and its consequences as claimed by Penny and Grossman above. However, the question that this reversal raises is less one of whether the game trains the body because of a cybernetic interaction with its perceptual or corporeal sensitivities, but one of the kind of body that results from this process. What are the stakes of a body captivated and sensitised (made vulnerable) to a kind of technics or apparatus? Where sensitivity might be a prerequisite for attuning the body, the corpus that emerges from this process is inevitably altered – losing some movements and sensations and acquiring others. It is Ash's appeal to the idea of sensitivity and ideas of opening that acts to redirect his article away from the kinds of (although reductive and simplistic) critical readings that bracket the discourse around violent videogames so central of Penny's argument above. However, the captivated and attuned FPS player (whether sensitised or numbed (see Penny 2006) – I argue both – emerges as a specific kind of affectively sculpted subject. The fact of the bodily training of the player is only part of the story. Ultimately, the purpose of this training, its values and effects, are what is important. In this way, the apparatus and its demands on the body – however affirmative or egregious – must be coordinated with what Deleuze (2006) called a diagrammatic form of power operating more widely in culture.

2.4 The 'self-made' neoliberal subject

In *Discipline and Punish*, Foucault traces the moment that sovereignty's attitude to the transgression of its laws transitioned from the spectacular punishment of public execution in the *ancien regime* to a system that sought to normalise the abnormal individual as a bodily singularity (Foucault 1991). Roberto Esposito notes that this transition – Foucault's 'threshold of modernity' – is a moment in which authority altered its focus from an appropriation and protection of the land and its resources to 'a control of bodies and what they do' (Esposito 2008: 34). Given the FPS literature discussed above, it seems clear that the investment of politics in the body represents an opportunity to coordinate the videogame with Foucault's work. Foucault argued that:

In the seventeenth and eighteenth centuries, a form of power...becomes a matter of obtaining productive service from individuals in their concrete lives. And, in consequence, a real and effective 'incorporation' of power was necessary, in the sense that power had to be able to gain access to the bodies of individuals, to their acts, attitudes, and modes of everyday behaviour. (Foucault 2002: 125)

This investment of power in the body necessitated the fostering of life, which, in turn, required regulating for it to become a useful resource for the state. Foucault labelled this construction of the individual subject 'subjectification' and situated it as the means that enabled the production of politically docile bodies trained to work in concert with mechanised processes of industrial modernity (1991). However, for this general attitude towards life and its shaping to be realised, apparatuses – most famously the panopticon – were required to affect this change. Although the idea of the disciplined subject is first articulated by Foucault in relation to the body of the individual in *Discipline and Punish* (1991), in *The Will to Knowledge* (1998), it takes shape as two distinct but interrelated technologies of power: the transparent discipline and normalisation of the self-aware individual body and the biopolitical control over the species' body administered at the level of the population.

Foucault notes that both disciplinary and biopolitical apparatuses were intrinsic to the development of capitalism in training bodies to operate in contexts of mechanised production and enacting augmentations at the level of the population to ensure this mass of bodies

matched with the needs of the industrial economy through the gathering of statistics and public health initiatives (1998: 141). This dual address to the individual and the masses relied on techniques of training and a biomedical investment in the health of the species (or 'race') that constituted the individual and their identity. For example, whereas the soldier is inculcated in an explicit disciplinary apparatus of bodily control in the form of repetitive drills that are observed by an instructor in their combat training, biopolitical notions of a unitary population and ideas of race bracket, reinforce and ultimately justify war as a mechanism for protecting the nation, now constituted as a body (see also Esposito 2011: 128).

Similarly, Foucault's primary case study (1991:195) of the prisoner subjected to the threat of panoptic oversight by the non-discursive arrangement of powered vision in Jeremy Bentham's panoptic apparatus of surveillance produces types of bodily movement, just like the soldier on the parade ground. However, it is the population that is rendered safe from the potentially contagious deviance of the prisoner, both by their removal into a space of confinement and through the supposed process of reform that was Bentham's final aim. Indeed, even though biopolitics represents a generalising control over the species' body, the constitution of the individual *as* an individual through subjectification was still central to its operation. This is especially true through the idea of race and its homogenising effect on personal identity, reaching its most totemic manifestation in the concept of blood and soil in Nazi Germany.

Despite a tendency for contemporary thinking in biopolitics to centre on the excesses of state power in the form of mid-twentieth century European fascism and its deathly or 'thanatopolitical' (see Campbell 2011) consequences (see Agamben's *Homo Sacer*, 1998 and *State of Exception*, 2005), Foucault's recently translated work (2008) focuses on biopolitics as a counterpart to the development of liberalism and neoliberal economic systems now dominant in the West. David Harvey has defined neoliberalism as:

A theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade. (Harvey 2005: 2)

While Foucault (2008) certainly touches upon the relationship between markets and the state, Jason Read has noted that the former's focus was on how 'neoliberalism is not just a manner of governing states or economics, but is intimately tied to the government of the individual, to a particular manner of living' (2009: 27). This biopolitical aspect has led Giardina and Newman to argue that neoliberalism centres itself on the body (2011: 527). For Foucault (2008: 222–223), neoliberal economics takes as its object the subject or person who works and their labour as the exercise of their capacities and will. This means that for economies and the fluctuations of markets to be legible and governable, the behaviour of the individual and the systematisation of the rationale producing their actions much be understood and controlled. The primary framework for schematising these actions was one that privileged rational self-interest as the driving factor. This determining of the actions of an individual, typified in the adoption of game theory as a primary framework for predicting these actions (See Amadae 2015). Here, a mechanical metaphor of economies is superseded by a need to schematise and understand the qualitative human element – its drives, its rationale for selling its labour in one way and not another, its dynamics of competition with other workers, and so on.

For Foucault, the lens through which a rationalisation of these activities becomes visible is in the concept of human capital. He notes that, 'it is a capital which in practical terms is inseparable from the person who possesses it' (2008: 224). This means that the subject is perceived by what we might call the neoliberal gaze solely in economic terms as a kind of investment and investor, with human capital standing in for the measure of the person and constitutive of their status and capacities for action as an individual. For Foucault, human capital is a measure of the scale of investment that people can leverage to acquire income (or wages) and thus determines their activity at work and at leisure. This rendering of the subject in terms of their economic potential reformulates how humanity itself is conceived and categorised. Here, the species is essentially re-classified as homo economicus, man (or woman) as 'an entrepreneur of himself' (Foucault 2008: 226). This is a reconstitution of the basis for personhood that dispenses with the transcendental nature of the Enlightenment subject and its enshrinement in the juridical sphere of the social contract, replacing it with the figure only legible via the economic actions of a selfinterested entrepreneur. Furthermore, if biopolitics is a technology of power that operates at the species level, then Foucault's suggestion of a change in the biological nomenclature from homo sapiens to homo economicus ensures this broader technology of power remains germane

to what might otherwise be considered in broadly disciplinary terms – i.e. in acts of training, such as schooling aimed at the acquisition of human capital.

Read has noted that homo economicus makes a transition from 'an exchanging creature to a competitive creature' (2009: 68). Humanity as discerned by neoliberalism takes shape only in a competitive relation to the human capital accumulated by other individuals. In this way, homo economicus is an individual and a species that constitutes itself not within universal humanistic measures, or a disciplinary conception of normality, but against the other. This continual call to assert internal existence and value against that which is 'outside' brackets the individual in terms of constant insecurity and reframes the self as something that must always be active and competitive, defined in a dialectic with the others behaving in a similar manner. This suggests that neoliberal thinking instigates a kind of reversal of meaning where security is achieved and maintained only through the propagation of insecurity and a continual need to assert one's existence and status. From this perspective, only by being constantly insecure, vulnerable and vigilant can the neoliberal subject (paradoxically) secure themselves (see Chandler and Reid 2016).

It is homo economicus's vulnerability to changes in its competitive environment that led Foucault to argue that, despite its apparent liberty regarding apparatuses of top-down political authority, the neoliberal subject is someone who 'through mechanisms of reinforcement, a given play of stimuli... is eminently governable' (2008: 270). This means that a certain turn takes place where neoliberalism transitions from an analysis of human action and a schematisation of its selfish but rational drives which are equated with moral values (Brown 2003: 42) to the creation of environments which allow any kind of affective responses and behaviour to be systematised. This means that neoliberal governmentality can, as Wendy Brown has suggested, 'saturate the field of actions and possible actions' (2003: 28) via the production of a range of apparatuses that operate at different strata (state and private). But these apparatuses, unlike those operating in the disciplinary society, function not via the imposition of clear modes of conduct by a transparent authority but by altering the general atmosphere of the environment. In this vein, Maurizio Lazzarato (2009) has argued that the policies of the neoliberal welfare state function less as a 'safety net' and more as a modulator of the worker's affective states and behaviour via the power of fear:

Contemporary policies regarding employment, for example 'workfare', which forces those in receipt of assistance to work, are policies that introduce degrees of insecurity, instability, uncertainty, economic and existential precarity into the lives of individual. They make insecure both individual lives and their relation to the institutions that used to protect them. (2009: 119–120)

Here, the apparatus of the welfare state takes a step back from practices such as explicit discipline and, instead, begins to operate at one remove from the subject by immersing them within a precarious and insecure environment dictated by market forces. Insecurity operates as the lever here producing a vulnerable and disempowered subject who does whatever it takes to secure themselves against the risk of privation. This risk, rather than being ensured against by the welfare state, is actively foregrounded – social security mutates into social insecurity. Here, the fact of this manipulation is occluded as Harvey has noted by neoliberalism's colonisation of common-sense understandings as 'a natural way for the social order to be regulated' (2005: 41). The subject, in effect, takes what appears to them to be self-directed actions aimed at protecting or furthering their own interests, but can also be framed as reacting in a systematised manner in the production of a context of insecurity fostered by neoliberalism. Chandler and Reid have argued this means that the neoliberal subject needs to be understood not as a gogetting entrepreneur, but 'a humble, disempowered being that lives a life of permanent ignorance and insecurity' (2016: 58).

Beyond state-organised *dispositifs* of control, we need to understand how the subject comes to internalise and even desire a reproduction of this competitive and insecure self in what might ordinarily be considered 'free time'. In his essay 'On Some Motifs in Baudelaire' Walter Benjamin identified a situation where the film spectator freely sought out a repetition of the shocking stimuli of mechanised labour in the visual 'conveyer belt' of the cinema (Benjamin 1999: 171). In this case, media technologies take shape as part of the landscape of interlocking *dispositifs* that reflect and produce broader operations of power functioning at any given historical moment. Industrial capitalism needed habituated and docile bodies for its economic systems to operate smoothly, but it also produced a corollary in the cinema transplanting 'the industrial revolution to the eye' (Beller 2006: 9). Benjamin's work attests to how the mechanisation of labour in the factory produces a new sensorium for the spectator reflected in the production line of mechanised sensations that the cinema represented. In the cinema,

Benjamin saw evidence of a body that had been standardised to desire the reproduction of the intense mechanised sensorial context of working life even in its apparent escape into imaginary worlds. This means that Benjamin in some sense prefigured the turn towards the cinematic image theorised as full of affective charge (see Shaviro 1993 and Väliaho 2010).

For Benjamin, attractions like the cinema and the mechanised rides of the funfair represented 'a taste of the drill to which the unskilled labourer is subjected to in the factory' (Benjamin 1999: 72). The sensory directness of the 'taste' of this drilling is no accident or simple metaphorical flourish. For Benjamin, the systematic production of shocks and the habituation of the body to this stimulus provided a form of sensory and bodily training for the subject required in the newly emerging Fordist and Taylorist production lines of the industrialised West. Ultimately, this training via the production of shocking sensations has particularly high stakes for Benjamin in what he calls modernity's 'increasing atrophy of experience' (Benjamin 1999: 155). The mechanised flow of the cinema's bodily attractions and automation of the corpus of the spectator is, of course, exactly the kind of automated body required for industrial capitalism to flourish.

However, given Benjamin's account of the correlation between the construction of the body or sensorium in mass production and the mass media, it seems appropriate that videogames described as an 'action-based medium' by Galloway (2006: 2) can be approached as a possible corollary to the production of the active and insecure entrepreneurial individual in more explicitly economic or governmental contexts. Lazzarato's (2009) idea that the production of insecurity by the apparatus of the welfare state is a strategy that leverages the body's affective sensitivities is a hallmark of neoliberal governmental practices can be correlated with and Foucault's suggestion that the constitution of a certain kind of stimulating environment can govern actions indirectly in neoliberal governmentality.

In both cases, the seemingly self-directed and self-interested actions of the neoliberal subject are shaped by both their bodily sensitivities and how authority stimulates these sensitivities via specific apparatuses to automate and predict this subject. This conception of the neoliberal subject as being vulnerable to systematic alterations in its environment provides a lens for considering how apparently self-directed actions in videogames are the product of more than

simply the player's agency or gamic vision (Galloway 2006), the apolitical playing of a game (Lantz and Zimmerman 2010) or the absorption in the pleasure of storytelling (Murray 1997). Instead, the neoliberal tendency to shape the subject at one remove via the opaque production of a general environment of economic insecurity and deliver it via specific *dispositifs* such as the welfare state suggests that a whole interlocking mosaic of apparatuses are at work both in explicit contexts of economic danger and elsewhere. If for Benjamin the cinema was the symbolic form able to articulate the subjectification at work in industrial modernity and an apparatus involved in producing this process in the context of entertainment, then this thesis argues something similar in respect to the FPS and neoliberalism in the post 9/11 world.

2.4.1 An affective map for late capitalism?

Where Foucault explores how neoliberal systems and apparatuses operate to compose and subjectify the individual as a competitive and insecure subject, it is critical to acknowledge that, as pervasive as these values may be, neoliberalism as a set of explicit economic policies has been directly responsible for the biggest and most enduring economic crisis since the great depression of the 1930s. This raises the question of whether its influence can be situated as allpervading in terms of a technique of governance in the manner suggested above. Colin Crouch (2011) has explored what he calls neoliberalism's 'strange non-death' considering its manifest failures in producing and perpetuating the 2008 financial crisis. Crouch notes a historical anomaly in the way so-called failed economic policies like Keynesianism have traditionally given way to new approaches that has not occurred in the case of neoliberalism (2011: 1). Rather, for Crouch (2011: 70), the persistence of neoliberalism can be explained not by its efficacy, but by the fact that powerful vested interests remain tied to its continuation and spread. While this intensification of neoliberalism has paradoxically coincided with its failure, the key question that this raises is not why the incestuously networked financial and political systems of the West would seek to protect their interests, but rather one of how and why this has been allowed to continue in supposedly democratic societies where the general population has suffered so greatly because of the continuation and intensification of neoliberal fiscal policies.

The continued 'life' or perhaps afterlife of neoliberalism can be situated in terms of Fredric Jameson's (1991) claim that the confusing hyper-spatiality of late modernity creates a disorienting crisis in political orientation and forecloses the possibility for active resistance to a deregulated spatiality determined by chaotic flows of capital. Jameson's clarion call for a cognitive map for late capitalism as a curative for the hallucinatory and discombobulating political, economic and spatial reality of postmodernism represents his attempt to establish a particularly affirmative form of political subjectification, a reimagining of a Marxist awakening from false consciousness. However, this awakening is not framed as the restoration of political consciousness but of political orientation. For Jameson:

this latest mutation in space – postmodern hyperspace – has finally succeeded in transcending the capacities of the individual human body to locate itself, to organize its immediate surroundings perceptually, and cognitively to map its position in a mappable external world.' (1991: 44)

However, this lack of orientation within the disorienting and inscrutable spaces and structures of late capitalism has seemingly become a boon to the loose conglomeration of connected interests that support and promote neoliberalism. What I think this crisis of orientation points towards is a situation where the necessity of a cognitive map has been rendered obsolete (or at least obscured) by the intensification of insecurity and its affective, biopolitical address to the body and psyche of the neoliberal subject. If Foucault's position regarding the systematisation of behaviour that neoliberalism and its apparatuses stimulate via their capacity to constitute and alter our environment is correct, we can start to understand how a crisis of neoliberalism as a set of economic policies in fact represents an intensification of its capacity to produce insecurity and wield this powerful affective tool as a means of governance. In this situation, the more insecure the environment becomes because of neoliberal economic policies, the more powerful and entrenched these apparatuses of insecurity become as a biopolitical technology. By inciting conduct based upon competition, insecurity and a defensive posture towards the other, neoliberal governance has given people the only map they need.

Because videogames both create immersive environments and are fundamentally action-based, they represent a potential model where neoliberal values can be enacted and the player governed. In effect, the multiplayer maps of games such as *Call of Duty: Black Ops III* (2016) take shape as tools for capturing the player's actions, even when these actions appear as expressions

of the liberty of movement and action that the videogame makes possible. Throughout this thesis, I approach the FPS as a *dispositif* that produces a particularly acute situation of insecurity in respect to the contingencies or risks inherent in the competitive arena of multiplayer maps. This manufacture of danger with all its bodily and psychological effects is understood as paramount to discerning the significance of player actions, and, further, as a corollary and symbolic form articulating a more pervasive and intentional reproduction of an enduring mood of crisis in the neoliberal world.

2.4.2 Other Players in a neoliberal apparatus

As noted in the previous section, the Foucauldian critical literature on neoliberalism that provides one of this thesis' primary critical lenses emphasises the manner in which policies of direct state discipline have been superseded by neoliberalism's production of a kind of open market for the self, wherein horizontal market-based competition replaces vertical hierarchies of state power. This is a situation in which subjects pit their human capital against others – a competitive, dog-eat-dog context where the perils of failing to 'win' are continually reproduced as a motivating factor for human conduct. This production of an insecure and competitive relationship between self and other is approached in this thesis in terms of how the FPS' interface and the graphical elements of the HUD deterritorialize the individual and reterritorialize them within the mechanics and values of the interface. This refashioning of the body is read as a regime of subjectification in which the production of the individual via the interface intensifies issues of inside and outside, of friend and foe, of body and pathogen. The other is reduced to a threat. Teammates fade from view, enemies multiply in the game and in the imagination. However, in the context of understanding the FPS as a neoliberal apparatus, the specific nature of both cooperative behaviour between teammates and competition with enemies remains a potential area for a consideration beyond the limits of the current work, but a potentially fruitful addition and complication to its argument.

Wright, Breidenbach and Boria have argued that 'When you play a multiplayer FPS video game, like Counter-Strike, you enter a complex social world, a subculture, bringing together all of the problems and possibilities of power relationships dominant in the non-virtual world (2002). They suggest players 'actively create the meaning of the game through their virtual talk and behavior'

(2002, see also Manninen 2001). Drawing on Dick Hebdige's (1979) work on youth subcultures and Brian Sutton-Smith's *The Folkgames of Children* (1972) The authors argue that the interaction between the players (whether teammates or enemies) in Counter-Strike is an 'antistructural' context in terms of its technicity that fosters a utopian refashioning of life, broadly understood as a form of creative and collective resistance to the social norms and possibilities produced by the power-relations of the 'real' world.

More recently, Manninen and Kujanpää (2005) have engaged in an exhaustive and largely descriptive mapping of the possible forms of interaction between teammates in DICE's *Battlefield 1942* (2002), a predecessor to *Battlefield 4* with a largely unchanged template for team play. Manninen and Kujanpää argue that the impetus for collaboration between teammates was driven by a desire for a positive ludic end-state and as an end in itself for the purposes of feelings of 'social togetherness'. In both above works, the relationship between players engaging with multiplayer team-based games with varying degrees of similarity to *Battlefield 4* and the *Call of Duty* franchise are foregrounded as not only essential to the experience in a ludic sense, but also as sites of playful cooperation and conflict constituting emerging cultures in their own right. In each case, there is the forwarding of a kind of horizontal power-relation between players in which the technicity of the games plays an enabling role, but is otherwise understood as a neutral channel through which togetherness, creativity and meaning is incubated and produced. Issues of the particularity of the FPS as a technical system and interface are almost totally absent.

In contrast, Patrick Crogan has approached multiplayer games via a combination of Heideggerain concepts of self, other and space and his Stieglerian lens, noting in contrast to the accounts above that: 'The horizon of the relations between the individual and other players is technical' (2011: 119). For Crogan, the idea that multiplayer online games can be understood as conduits for an essentialised, stable or non-technical human identity and becomings is not only impossible in terms of the games themselves, but ignores the co-constitutive relation between the human and technology that precedes their use (see Stiegler 1998). Importantly, Crogan's application of Heidegger (with the important caveat regarding his idea of a proper form of non-technical being) means that other players are understood as constitutive of game space, via the concept of the region. This fusing of space and other 'privileges distant, affective, some would

say quasi-tribal engagements over local, national, or existing political regions of situated sociality' (2011: 120). Crogan charts various interventions against this tendency from digital artists, suggesting that 'idiosyncratic iteration' has the capacity to alter his rather negative reading of online communities. Although the specificity of the kind of subjectivity produced in online multiplayer games and its relation to the experiential texture of the player remains somewhat up in the air in Crogan's account, his chapter does develop a philosophical framework for approaching issues of self, other and environment that could be useful for further work.

In terms of mapping the experience of competitive online gaming, a recent study approaching multiplayer matches of Call of Duty in terms of the motivation of players, Beatriz Elena Marcano Lárez has noted that players:

can go through a vast array of emotional states which range from the 'fear' of dying (being eliminated) to the 'anguish' over the constant threats or the 'uncertainty' of not knowing where the enemy is going to show up. All of this enhances the acquisition of behaviors or action patterns that can be used to win the game (Marcano 2014: 39).

Although Marcano approaches *Call of Duty* in a broadly uncritical manner in terms of its potential as a pedagogic instrument that operates via the carrot of ludic advantage, the suggestion above is that teammates and enemies alike produce a feeling of intense precarity, a nervousness that is put to use in a form of affect-driven training of the body. In her reading, complex and non-ludically driven cultures of togetherness in which the game is a 'free' context for experimentation in which both the meaning of the game and broader social and cultural contexts can be fashioned by players seem very distant. In turn, her work provides an account of the affectivity of the experience of playing which is able to provide insight into the emotional and sensory nature of the relation between players, whether friends or foes.

While the complexity of the player's encounter with others in multiplayer matches is not explored in this thesis in favour of crystalising the operation of ineluctable facets of the interface, the nature of the other as more than simply a phantom-like subject haunting the player could provide a fruitful area for further work. However, my game logs, the immunitary framework that this thesis adopts and its dialogue with neoliberalism have led to a series of readings in which the fear of the other and the player's resulting defensive reactions end up

producing an indeterminacy between the player and the other, where the threatened self and the threatening other fuse. In this, there is a confusion of self and other, of self-defence and aggression, in which fear of the other regulates behaviour in such a way as to shape the player in its imagined image.

2.4.3 Immunity and the insecure individual

Roberto Esposito's concept of immunity developed across *Communitas* (2010), *Bios* (2008) and *Immunitas* (2011), establishes a philosophical model describing contemporary biopolitics' production of the subject as a kind of self-negating individual. The importance of the individual in Western thought permeates Esposito's work and is legible not just in his critical understanding of the body but extends to all things conceived as a corporeal unity, most notably in the form of the nation-state (2011: 128). Esposito casts the process of immunisation as the hidden logic of a biopolitical power that constitutes the modern subject by programming a self-defensive reaction in the individual against the threat of its dissolution by the other of community.

In Esposito's work, immunity and community enter a relationship in which the former is cast as an exemption from the obligations and connections to the latter, constituting and protecting the individual and what is proper to them. In contrast to immunity's tendency to establish borders of individual selfhood and property (see also Haraway 2001), Esposito notes that community, or 'common life is what breaks the identity-making boundaries of individuals, exposing them to alternation... it tends to confuse the boundaries between what is proper to each individual and what belongs to everybody and hence to nobody' (2011: 22). Important in understanding the general thrust of Esposito's work is that neither total immunity nor its opposite in community are positioned on opposite sides of a moral or political map. It is for this reason that Timothy Campbell (2011: 78) has identified an affirmative reading of biopolitics in Esposito's work and Mitchell (2010:53) has suggested a healthy national immune system as a metaphor for increasing security in the face of external threats, like terrorism.

Esposito positions the immune reaction against that which seeks to in some sense envelop and confuse the body's proper borders in the form of community as functioning to secure the

individual. However, the outcome of this protection from the common means that the immune reaction sets itself up as the negative policy, which secures the individual. The effect of this extension of negation is the adoption of a more pervasive and compulsive immunitary posture that comes to define the organism or subject that it is trying to protect. This entails a doubling of negation in which the affirmative protection of life slides seamlessly into a self-negating operation because all interests outside of a compulsive desire for self-protection have been cancelled, leading to the disqualification of life as anything other than a compulsion to protect one's self.

Esposito's work understands the individual as a figure born at the same moment as the other is recognised and seen as a threat. This danger to the individual is characterised by Esposito in a number of ways: as pathogens that strike the population, computer viruses, the movement of migrant populations, the threat of terrorist attack and the interests other nation states (2011: 2–3). In each case, the insecurity that arises is that these violations of the sanctity of the individual and national body might transgress and ultimately destroy from within via the uncontrolled contamination of plurality. The broader idea here, in line with Foucault's conception of *homo economicus*, is that what threatens that which is proper to the individual – their resources, their human capital – also threatens their existence. Immunity, therefore, is a mechanism that operates at the level of individual bodies and the body politic to ensure that the individual as the central figure or *dispositif* in neoliberal and Western systems of thought is protected by a fixation upon that which threatens it.

As Timothy Campbell (2011: 78) has queried, what could be more proper to the individual than their own body within the neoliberal tradition? Here, the issue becomes not only maintaining the life of the body, but the body as an individual. For Esposito, this turn towards the individual is due to an irony at the heart of the notion of biopolitics wherein '...the state does not exist outside of the bodies of the individuals who compose it' (Esposito 2011: 137). Here, there is an upwards extension in the concept of the individual that comes with the development of the metaphor of the state as a body. But the metaphor also cuts both ways, enshrining the bodies of individuals as the matter that composes the state. This two-way street locates the interests of the state squarely in maintaining and therefore regulating the interests of the individual in order that it maintain itself. In terms of the conceptualisation of neoliberalism reported above, the

state needs to foster insecurity and competition to some degree to govern its subjects understood as purely economic actors.

In the second chapter of *Bios*, Esposito engages in a lengthy discussion of origins of the individual as the central figure in a certain tradition of Western liberal philosophy, reading the work of Kant, Locke and Hobbes via an immunitary lens. He concludes that:

To the degree that it isn't limited to the simple enunciation of liberty but implicates the organization of conditions that make this effectively possible, liberalism contradicts its own premises. (2008: 74)

In this sense, the concept of the individual within liberal Western thought and resulting political structures always requires a form of self-defeating regulation or immunisation from its own worst excesses to prevent a situation where *homo economicus* becomes *homini lupus* or man as the wolf that preys on other men, as famously articulated by Hobbes (1985) in *Leviathan*. However, Esposito does not understand contemporary political techniques as achieving their regulative effects through the disciplinary apparatuses Foucault (1991) identifies as key in organising the docile bodies required for industrial capitalism. Rather, for Esposito:

immunization is a negative [form] of the protection of life. It saves, insures and preserves the organism...but does not do so directly, immediately, or frontally; on the contrary, it subjects the organism to a condition that simultaneously negates or reduces its power to expand. (2008: 46)

At the heart of the quote above is the way immunisation functions — not as a top-down maintenance of the political order, but as a mechanism that manipulates the individual into negating their freedom in the very act of its protection. This self-defensive reaction makes the individual predictable, and thus governable. Immunisation is fundamentally indirect in the sense that it threatens at one remove, relying on the self-defensive action of the individual body. Here, the monstrous other is produced, introduced into the environment and administered to impel the individual into a defensive posture — one that is reduced, predictable, regulated and secured against change. In this sense, the subject is governed by an external power in the very process of acting out its presumed right of self-governance. The upshot of this is not of an extension of protection, but of risk and insecurity. If we return to Foucault's (2008) concept of the neoliberal subject as *homo economicus*, we can see how the immunitary process functions

to explain the broad processes through which human beings are conceived and governed by deliberately introducing threats and producing a generalised context of insecurity, which is inherent in the competitive environment fostered by market-driven economic systems. Only by continually producing vulnerability and insecurity can the self-defensive, competitive and active subject required by neoliberal economic models be produced and maintained.

I approach the FPS as instigating relations of interiority and exteriority on multiple levels, wherein the player is forced to protect themselves from the outside to continue playing the game. There is the basic structure of us (or I) and them intrinsic to the competitive multiplayer modes of both *Call of Duty* and *Battlefield* in which the enemy must be encountered to be negated. In terms of aesthetics, the player's 'gamic vision' is defined by the scope of the pictorial frame, outside of which threats lurk and can only be neutralised when they are brought into visibility and centred in the image's crosshairs. Perhaps more fundamentally, by constituting the player in a cybernetic loop, the FPS produces a technically unified individual, just as it supplies the threats to our encapsulation by the apparatus in the form of the possibility of in-game deaths, which interrupt the connection between action, identification and immersion. While I have characterised the apparatus as one that fuels the activity of the player via the intensification of insecurity, it is the immunitary reactions of the player that the *dispositif* merely incites that drive subjectification.

2.5 Conclusion: a conceptual HUD to target the FPS

By mapping the essentially instrumentalist nature of ludic (see Juul 2005, Arsenault and Perron 2009, Eskelinen 2006, Frasca 1999) and narrative (Jenkins 2006, Murray 1997, Laurel 1991) approaches to the videogame, I could suggest how these frameworks exclude the complex affective relationship between player and game (Lahti 2003, Grusin 2010, Ash 2013) that fundamentally not only shapes the player's actions arising from their sensorium, but also influences the aesthetic form of the image itself — its twitch-like nature. This thesis is not about capturing the player involved as being in an expressive narrative form, nor as a gamer interacting with explicit ludic rules, but as a subject captured in an apparatus that seeks to affectively incite actions and a sense of insecurity via the production of a dangerous context. It is not about the pleasure of winning, but about the battle to secure, protect and immunise the self against the threat of the other. These threats could be competitive neoliberal subjects vying for

job opportunities or refugees crossing the Mediterranean – demonised as plagues of insects draining the resources of the nation-state and carrying more literal plagues in terms of infectious pathogens, whether biological or ideological in nature.

In approaching literature on the FPS through the lens of its tendency to suggest a more direct relationship between the game and the subjectivity of the player (Galloway 2006), I sought to establish the medium as an apparatus in Foucauldian terms (See also Penny 2006). First this took shape as an exploration of works that leveraged psychoanalytic frameworks of subject formation, drawing heavily on their adaptation by apparatus theory in the discourse of film studies (Morris 2002, Taylor 2003). In general, these works counterpose the now contested, even obsolete, characterisation of the passive and dream-like gaze of the film spectator by apparatus theory with an active form of vision. This simplification of the viewing position produced by the cinema offers readings of the FPS that variously retain the reading of the apparatus's ideological power (Morris 2002) or discarding it in favour of a perspective that highlights the essentially 'human' qualities of gamic vision (Galloway 2006). My reading of these works took shape as an argument that neither Althusserian (1971) ideas of ideology nor a form of vision liberated (rather than constituted) by technology are apt ways to understand the FPS's relationship with the subject. This thesis argues that what the player does, their actions, needs to be analysed in-process and in relation to a close reading of the graphical qualities of the perspective in order that the politics (or lack thereof) of this activity can be brought to light.

I then considered various works that approach the FPS as an essentially cybernetic technology of control, which shapes the bodies and experience of its players. The first set of writing discussed here centred on violence. Where Penny (2006) linked the FPS's use as a military training simulation to outbreaks of mass murder supposedly by FPS players and Nichols (2010) cited the genre as a recruitment tool for the US armed forces, Crogan's (2011) work traced a deeper logic of violence perpetrated on the very nature of experience offered a more enduring and nuanced insight into the effects on the FPS player in terms of the direction of this thesis. In the literature approaching different iterations of Activision's *Call of Duty* franchise, James Ash's (2013) application of a Heideggerian concept of attunement was particularly useful as a template for exactly how the FPS player becomes habituated by the game, with Väliaho's (2014) insightful coordination of FPS gameplay with neoliberalism being the key influence on this thesis.

I opened this chapter with a third-hand quote from Albrecht Durer (Panofsky 1997) that defined perspective as the art of 'seeing through'. And, while the discourse on the FPS is an essential influence and sounding board for this thesis, the unique lens – or conceptual HUD – that my work turns upon the form is that of targeting it as a Foucauldian (1991, 1998) apparatus that diagrams or maps the player, but one that does so obliquely (2008) rather than frontally. By coordinating this understanding of the neoliberal apparatus as an environment (2008: 270) that administers not a regime of surveillance or discipline but a controlled dose of danger with Esposito's concept of biopolitical immunity (2008, 2011), a conceptual HUD for understanding the FPS's politics both at the level of the game and the player's reactions to it has been established. The empirical chapters of this thesis will test the aptness of this lens in terms of different elements of gameplay and at different stages of habituation. However, this dual focus of the game as an apparatus and the player as a reactive immunitary subject raises the question of how to map or capture elements as diverse as the digital code underlying the videogame's software, its aesthetic features and far more intangible aspects like the psychological and bodily effects experienced by the player. It is with this question in mind that I now turn the question of method.

Mapping the Apparatus: Event, Image and Subject

3.0 An interplay of methods

This thesis produces a cartography of how movement of the FPS' interface is incited, enacted and sensed. The aim of this act of aesthetic and corporeal mapping is to coordinate the player's activity with the operation of macroscopic political techniques. For Foucault (2008), neoliberalism is a form of governmentality wherein there is an extension of free market behaviour, the production of affectively intense 'dangerous' competitive environments and the subjectification of self-interested insecure actors into every sphere of existence: biology, family, criminality (Foucault 2008: 223). Suturing this contagious and mutating economic doctrine with the FPS entails a move away from the desire to approach the videogame apparatus in terms of its explicit programming of gestures, such as those patterned in the iconic spaces of Foucault's disciplinary society (1991). I am concerned with reading the player's actions and their causes as a form of indirect governance, an 'acting upon action' (Rose 1999) that constitutes and manages the individual in Western culture defined by the tension in liberalism between fostering freedom and the need to manage its expression within certain parameters (see also, Esposito 2008:74).

This thesis has a double-edged methodological approach. As noted in my introduction, recent work by Alva Nöe (2006) has highlighted the co-constitution of perception and action, and the FPS is an apparatus that reproduces this dynamic synthesis of the senses. The interception of this linkage between seeing and doing means that the ludic, story and spatial elements encountered by the player are only concretised by their unpredictable gestures and may be elided altogether as the perspective is pushed and dragged, raking and twitching into and across the multiplayer maps of *Call of Duty: Black Ops III* (2016), for example. This raises the methodological question how to capture what Martti Lahti has called the 'delirium' (2003) and

Pasi Väliaho the 'rich rhythmic sensory stream' (2014: 35) of these unique visual, psychological and somatic events? In *Postmodernism*, Jameson (1991) quotes a lengthy passage from Michael Herr's *Dispatches* (1978), report from the Vietnam War as a crystalisation of the former's idea regarding the changing spatiality of postmodernity which also seemed to resonate with the hallucinatory and affectively dense screened and embodied event of playing the FPS:

He was a moving-target-survivor subscriber, a true child of the war, because except for rare times when you were pinned or stranded the system was geared up to keep you mobile, if that was what you thought you wanted...the more you moved the more you saw the more besides death and mutilation you risked, and the more you risked of that the more you would have to let go of one day as a 'survivor.' (cited in Jameson 1991: 45)

It is the evocative visceral power of Herr's account — which is not an authoritative cartography of the conflict taking in its broader context with a panoptic and god-like gaze but like a first-person rush down tunnels of risk with which an account of the FPS's power as it is experienced and sensed should begin. Similarly, I write front-line autoethnographic accounts of the intimate experiential texture of playing rather than beginning with the analysis of isolated, fixed and recurring interactions determined by the FPS's ludic rules, narrative structures or spaces. Adams, Jones and Ellis note that 'The term autoethnography invokes the self (auto), culture (ethno), and writing (graphy). When we do autoethnography, we study and write culture form the perspective of the self' (2015: 46). However, in this thesis, the 'self' that is being both produced and revealed is the product of the FPS as a particular technocultural apparatus of power. The perspective of this 'self' is less a self-reflexive writer-ethnographer than it is a report of a stream of sensations, emotions and perceptions that are unfolded in the collision of body and apparatus.

It is noteworthy, given the obvious expressive power of the written word, that Brian Rotman (2008) has argued that the alphabet cancels the body's spectrum of gestural expression. There is an irony, then, in the fact that I attempt to articulate manual and on-screen gestures and sensations through autoethnographic writing – a 'disembodying' medium, in Rotman's terms (2008: 3). This apparent detachment from the body is exacerbated by the fact that the appearance of the player's gestures on the screen is such that they have already been translated into code and this code itself has mutated into a screen-based aesthetic by technical processes of calculation and graphical rendering. The written word is not a portal into the body or

experience of the player, but a doubly mediated and regulated ghost sensed by the body, gestured through the apparatus and passed through the code of the written word.

As a methodological counterbalance to this autoethnographic alphabetical inscription of the event of playing, I also analyse repeating or visually ineluctable elements of the FPS interface, such as the graphic elements of the HUD. Encompassing Panofsky's three-stage search of the intrinsic meaning of the image in *Studies in Iconology* (1972), I complicate the hermeneutic distance implied by Panofsky's method with more contemporary conceptualisations of the image that emphasise how it is animated by the body (Belting 2011) while also having its own desires and fetishistic lacks (Mitchell 2005). However, in a situation like the FPS, this animation is not simply a colonisation of the body by a desirous and ghost-like entity, but a lack that demands action, hailing the body and bringing the image closer to a corporeal and technological event. *Gerere*, the Latin root of the English word gesture means literally 'to carry, manage, conduct'. When we consider the image of the FPS, we have a gesturing that is not just expressive of the player, but one that carries the image's desires into the world via the interface. The boundaries between the animation of the image and the self-directed activity of the player are enmeshed in a situation in which the image is not only anthropological, but the human being — the *anthropos* — is invaded and shaped as an image.

The reader might ask how you can be at once the subject of the game's affective regime and adopt the posture, reserve and objectivity of the analyst. However, this tension between apprehending the FPS as an experience and as an image is both replicated and explored in this thesis in the sense that the apparatuses of modernity and late modernity colonise and subjectify the individual often through the power of the image, fogging subject—object relations via the production of cinematic bodies, for example (see Shaviro 1993, Barker 2009). In videogames, the player has the means to respond to this colonisation of the imagination and the body by the apparatus in that they can feed their gestures (whether as actions or reactions, deliberate or impulsive) back into the screen. The form of this gesture is doubled as a manual input and a screen-based movement. However, a player does not look at their hands when they play, but at the screen which is the site of the game's veridicality. But what of previous approaches to analysing the FPS? What can the methodological strategies that shape the discourse and conception of the FPS reveal. And what omissions and inclusions do their maps articulate?

3.1 Capturing the 'event' of the videogame

Writing about id's *Doom* (1993), Espen Aarseth sought to distinguish between ergodic forms such as the videogame and previous image and literary cultures. For Aarseth:

Ergodic phenomena are produced by some kind of cybernetic system, i.e., a machine (or a human) that operates as an information feedback loop, which will generate a different semiotic sequence each time it is engaged. Thus, a film such as *The Sound of Music* or a copy of a novel such as *Finnegans Wake* is not ergodic... The experiences of their audience, though individual in an interpretational sense, are singular as far as the material sign production is concerned. (1999: 33)

The visual variety of a videogame such as *Doom* means that the hermeneutic method of textual analysis and strategies as diverse as Sassurian semiotics and Panofsky's iconology that take the concrete referent or signifier as a common source – if not definitive of meaning – can no longer lay claim to grasping the ergodic phenomena. However, where the cinema might generate its own body – to each film its corpus – the videogame is not only a unique semiotic event but a singular affective and psychological mirror image of the player's modulation by the apparatus. When we play an FPS, the semiotic sequence is unique, not because the technology is involved in generating a randomised image, but rather because the body that gestures this sequence into visibility is a multiplicity of sensations and perceptions that are both conscious and nonconscious. Each sharp intake of breath, the kneading of slick palms, the ticks of the analogue sticks contaminate the screen in small and unmeasurable ways. Aarseth's insightful characterisation of the ergodic nature of videogames suggests that there is an intangibility to their enaction that is almost antithetical to close analysis but this isn't simply a semiotic variance (a variance of signs) but a total contamination of the sign by the body and vice versa.

The problem of capturing ergodic videogames in their totality has led to a range of methodological responses that have deep implications for the way in which they have been theorised. When ludologists analyse play (see Juul 2005, Lantz and Zimmerman 1999), they do so regarding the foundation provided by a game's rules. Equally, approaching videogames in terms of narrative (see Jenkins 2006, Murray 1997) seeks to grasp them by their plot points,

storytelling mechanisms and pleasures. Each approach takes the problem of the uniqueness of the videogame as a visual and bodily event and binds it to the concrete and accessible.

Whether games are viewed through the lens of their narrative, ludic, spatial or other qualities, textual analysis and its recourse to fixed elements remains an important facet of work on videogames in the humanities. Rather than produce an exhaustive survey of these methodological strategies, I would like, instead, to take Mia Consalvo and Nathan Dutton's 2006 article 'Game Analysis: Developing a Methodological Toolkit for the Qualitative Study of Games' as an explicit and emblematic example of the costs and benefits of such an approach. Consalvo and Dutton propose the production and categorisation of discrete data-sets, each containing a total mapping of the possibilities of objects, interfaces, interactions and explorations. Their approach to the first of these categories -an 'object inventory' - is useful in crystallising some of the overriding issues at stake. The creation of an object inventory entails cataloguing and archiving 'all known objects that can be found, bought, stolen or created, and produce a detailed list or spreadsheet that lists various properties of each item' (Consalvo & Dutton 2006). Such a thorough approach would generate of a wealth of fixed textual data. Each object could then be isolated and analysed in terms of its specific ludic or other qualities activated when the object was used in-game. This totalising strategy has some obvious advantages. For example, in competitive multiplayer FPS titles such as those in the Call of Duty and Battlefield franchises, a full survey of the different weapons available to the player could certainly act as a textual base from which to map their effects on the more open gestural and perceptual rhythms of gameplay including on the connection between different kinds of weapon and the play-styles that they enable or foreclose. However, for this information to be useful, it would still require a riskier plunge into the game as an uncertain and unique event. Without recourse to the game in these terms, there seems little use in isolating objects for their own sake.

Additionally, this task would re-cast the researcher as a kind of fevered archivist. In his meditation on the archive, technology and Freud, Jaques Derrida noted that 'archivization produces as much as it records the event' (1996: 17). This means that the act of recording and storing is not simply an attempt to preserve past events and texts, but shapes the future of whatever practice the archive seeks to maintain. Derrida speculates how a technology such as email would have not only recorded and collated, but shaped the broad practices of psychoanalysis, for example. And we can see, too, how a utility such as an Excel spreadsheet

would not simply function to archive all elements of the videogame, but would inevitably predetermine a kind of destiny for the event of play, implicating it in practices like accounting. The desire to fix and know every element of a game such as EA's *Battlefield 4* would reduce the theorist's activity of playing to a fevered digital kleptomania, an archive fever. In his first thesis conceptualising this malady Derrida records its symptoms:

It is to burn with a passion. It is never to rest, interminably, from searching for the archive right where it slips away...It is to have a compulsive, repetitive, and nostalgic desire for the archive, an irrepressible desire to return to the origin, a homesickness, a nostalgia for the return to the most archaic place of absolute commencement. (1996: 57)

This compulsive desire to wrest an object from its context and place it in some repository, a place of both remembering and forgetting is legible in Consalvo and Dutton's desire to treat the videogame event as an object, to save it from its own live temporal flow, but also to 'forget' its context. To analyse the videogame as a text is to archive, to preserve but also to destroy. A situation arises in which the videogame is enveloped by its methodology. The opportunity cost of such an approach in terms of capturing the gameplay of the FPS appears almost total, and the overall method is a gesture of control or fixing in a medium that, as Galloway (2006) has emphasised, should be approached in terms of action and its processes. However, whether archiving fixed elements or focussing on the processual nature of gameplay, technical and material assemblages and infrastructures operate behind and beyond the visibility of the image but operate to produce this visibility and suggest a potential approach to contextualising the flow of the player's experience.

3.2 The materiality and technicity of the videogame

This thesis approaches the FPS as an apparatus of neoliberal power, and, particularly charts how the aesthetic elements of the HUD shape the player's interaction with its interface. As such, there is a focus on the generation of player action and experience between the body, the screen and the three-dimensional world beyond its surface which does not encompass the various layering of technical, material, infrastructural and geopolitical elements that make the immanent event of playing the FPS possible.

In the introduction to their edited anthology Signal Traffic (2015) Lisa Parks and Nicole Starosielski note that the screened form and content and its relations to audiences and players that is the subject of much work in media studies is formed and enabled by media infrastructures. Data centres in northern Europe and telephone masts in Africa and the undersea network of data cables running in the deep (Starosielski 2015) enable and potentially influence what we see and do when we play a multiplayer match of Call of Duty or Battlefield. Respawn rates dictating the rhythms of life and death which structure our play, levels of server 'lag' that can determine the outcome of an exchange of fire are both dependent on internet infrastructures that have a material and divisive presence. In this way, material and infrastructural inequalities are translated into in-game disadvantages. But they also shape the physical territories in which they appear. Parks and Starosielski note how a papermill becomes a datacentre, a water tower doubles as a phone mast and network cables associated with the 'free' movement of information become entangled with the desires of the military industrial complex and both signal and produce economic deprivation (Starosielski 2015: x - see also Crogan 2011). There have also been calls for a 'material turn' in game studies itself, notably by Apperley and Jayemane:

The noise that a PS3 game makes when it is pushed into the blu-ray drive, the cables over which Xbox LIVE arcade games are downloaded, and the wars and environmental depletion taking place to produce the coltan-based batteries in your wireless devices... In their status as objects in the world, digital games are linked to topics of global importance, for example international relations, finance, organization of labour, and environmental issues (2012: 15).

Although the various strata and breadth of the materiality of videogames clearly operates as part of an interrelated media ecology (see Fuller 2005) and affects the temporality of online gameplay itself, this thesis' aim is to, rather, zoom in on the minutia of the interface as they are perceived, sensed and processed by the player and reflected upon in autoethnographic field notes. However, this emphasis on the visual and the experiential texture of the FPS also means that the technical (and mathematical) processes operating locally between the software, hardware and display device – while constructing the image and defining its spatial and temporal character – are not the subject of analysis.

Mark J. P. Wolf (2009) has produced a historical account of the development of threedimensionality in videogames which charts a telic trajectory towards the real-time rendering of photorealistic environments. Crudely speaking, the rendering of three dimensional polygonal shapes is achieved via the plotting of numerically expressed graph coordinates called vertices in three-dimensional space. These coordinates are connected to each other by lines, producing edges, which themselves are connected to produce polygons, the shapes that make up the solid facets of a wire frame model and the object it represents. This passage numerical coordinate to recognisable object is not a one-off mathematical process, but must be recalculated and rendered in accordance with the perspective of the player and their movements. Wolf (2009: 164) notes that three-dimensional objects contain the same number of polygons regardless of their distance from the player's in-game camera, meaning that the act of looking in a three-dimensional multiplayer map is contingent in terms of its computational load. Wolf (2009:163) also states that the invention of the Z-buffer in 1974 meant that any part of the polygonal object that was occluded (either because of the movement of the player's perspective, or because of an object being placed between the perspective and the object) was eliminated from the game's rendering budget.

In effect, these potential costs and savings to the amount of calculation required to produce the image mean that there is a connection between the player's movement and the computational load placed on the hardware. The more the player moves the perspective, and the further away the horizon dictated by the cant or angle of the line of sight and the openness of the multiplayer map, the more rendering power necessary to calculate the appearance of the object. In turn, the mobility of objects (including other players and in-game events and effects) into the player's perspective has the same effect. A player who constantly ranges around a multiplayer map, scanning the environment takes a heavy toll, whereas one who zooms in on the pixelated texture of a polygonal object does not.

The ability of the hardware to render the geometry determined by the software (discounting the refresh rate of the screen technology being used) sets the speed at which the game can refresh the image, often referred to as framerate. Websites like the Eurogamer group's Digital Foundry offshoot have been created specifically to analyse videogames from this technological standpoint, often centring on the trade-off between the number of pixels which compose the image (resolution or 'quality') and the ability of the combination of software and hardware to render these pixels temporally as a frame-rate, often referred to as a game's 'performance' (Morgan 2013). When Wolf refers to the mathematical processes sketched above there is a

conflation of rendering time (framerate) and so-called 'real time' which remains unaddressed in a critical sense. For Wolf, there is an attendant assumption that the higher the number of polygons being rendered, the more photorealistic the image. However, the combination of player activity, the scope/complexity of the image, its 'quality' and that of the hardware and software design produce a fluid situation in which framerate fluctuates within and between games. This fluctuation is also subject to management, with framerates often locked by developers of multiplayer FPS games, like *Battlefield 4* and the *Call of Duty* franchise at 60 frames per-second to ensure a consistent performance, especially important in competitive play.

The rendering of each frame and the mathematical processes required at each minute interval to produce the temporal and spatial 'reality' of the FPS image is its structure on the micro level, a purely technical process. My interest in the rendering of the frame starts with its affective and experiential texture. I cross-reference these impressions with the interface's aesthetic elements to capture gestures in the movements in and by the pictorial frame and of the body. I am interested in the actions (or reactions) of the player, in what these tics and reflexes say about contemporary modes of subjectification, rather than the microsecond intervals and the mathematical processes which occur therein to make these gestures possible. While the mathematical production and supporting material infrastructures of the videogame's reality are essential for the player's capture by the apparatus in the first instance, they do not fully determine the character of what follows; videogames require the player's movements and life to occur as an event (see Galloway 2006 and Giddings 2014). While not tracing the same technical and mathematical construction of the image as that above, James Ash (2015) has recently approached how Call of Duty 4 (2007) and versus fighter Street Fighter IV (2008) modulate the temporality of the player's capacity for attention via changes in in-game loadouts and the practice of 'frame counting'. Indeed, the production of movement in videogames as a result of intervals of calculation and rendering is an approach that might prove profitable, but lies beyond the scope of this thesis.

3.3 The business of the FPS and its player

This thesis argues that the immunitary operation of the contemporary FPS's interface produces an insecure, aggressive-defensive and self-defeating form of predictable, standardized individuality apt to be aligned with the desires of neoliberalism. It is, in effect, a series of autoethnographic reflections from within an apparatus whose materiality and technicity are occuluded, which are coordinated with wider political and economic issues prevalent in the West. However, while this approach captures a form of self-governance, it's focus on the production of a form of selfhood which mirrors the characteristics of neoliberalism according to its critical literature leaves the eminently neoliberal operation of the companies that produce the *Battlefield* and *Call of Duty* franchises out of the frame.

Foucault notes in his discussion of human capital that this measure of *homo economicus* determines not only the nature of the labour of the neoliberal subject, but also its free time for which the rewards for work are exchanged. Foucault claims that 'The man of consumption, insofar as he consumes, is a producer. What does he produce? Well, quite simply, he produces his own satisfaction' (2008: 226). There is a zone of indistinction between production and consumption for the neoliberal subject. As a service, the purchase of a game like *Battlefield 4*, is legible not simply as an expense, a bleed on the entrepreneurial unit as a reward for its positive economic behaviour and human capital. Rather, the game takes shape as another arena in which production continues with in-game purchases, but also in terms of the production of the subject. This blurring of consumption and production, in labour and leisure is a feature of work on this area.

In *Games of Empire* (2009) Dyer-Witherford and de Peuter produce a case-study of EA, the developer and publisher of the *Battlefield* series, through the lens of the concept of cognitive capitalism. Following Vercellerone (2007), the authors characterise cognitive capitalism as a situation where the old machinery of Fordist production is replaced by the mental labour of workers, conceptualised as machines that manufacture intellectual property without the spatio-temporal reference points of the working day and the factory gates. However, as Dyer-Witherford and de Peuter argue (2009:37), this apparent extension of the power of capital into the very locus of the enlightenment subject (their mind) poses a threat to authority as the 'machines' producing cognitive capital introduce the possibility of resistance as the now living

(and potentially unruly) cogs and gears of production. The indeterminate nature of capture and resistance in cognitive capital, however, remains doubtful in the case of EA's business practices with the authors glossing the company in their close to the chapter as follows:

EA's licenced-property game factories are a massive presence in the game business; the corporation's vertical control of production, publishing, licencing, and distribution gives it a pervasive presence; and it exemplifies tendencies toward concentration of ownership, repetitions licenced franchises, world-market business strategies...and the highly disciplined and exploitative control of its cognitariat workforce – increasingly prominent in cognitive capitalism generally (2009: 66)

In terms of EA's relationship to independent developers, the authors report a macro-level of financial dog-eat-dog that subverts and intercepts competition at the level of consumer choice. This tallies with a neoliberal context in which so-called open and deregulated markets, according to Harvey, 'depicted ideologically as a way to foster competition and innovation, became a vehicle for the consolidation of monopoly power' (2005: 26). The consolidation of its rivals, the production of a vertically integrated system of production, publishing and distribution undertaken by EA, has, as noted by Dyer-Witheford and Peuter above, stifled innovation in videogame development. This means there is a connection between EA's market-oriented corporate strategy, its means of production via cognitive capitalism and the experience of the player.

In relation to cognitive capitalism, Dyer-Witherford and Peuter describe (in the working conditions faced by EA staff and its relationship with smaller companies with which it outsources work) a tendency to transfer the risks and work of production down the food-chain. By keeping their workers in a constant state of 'crunch time' - defined by long working hours under extreme pressure - and with management using the language of winning and losing (2009:59) to characterise this struggle in competitive terms, EA produces a state of precarity and risk for its workers. Importantly, this transfer of risk is one that EA actively works to negate in relation to the business as a whole in its monopolistic corporate strategy. While EA certainly stands, as Dyer-Witherford and Pueter suggest, as an archetype of new regimes of production in cognitive capitalism, it also bares many of the hallmarks of a neoliberal enterprise schematised earlier in this chapter.

Whereas Dyer-Witherford and de Peuter problematise the repetitive nature of EA's output as arising largely from practices at the 'front-end' of production and labour, an analysis of the experience of playing EA's games and the kind of political and economic reality they produce is largely absent. Where there is an implied collapse in the distinction between production and consumption, between labour and leisure, in the focus on the fallacious 'work-as-play' ideal of the games industry, the extent to which playing videogames can be conceptualised as a form of labour (the opposite analytical trajectory) can be found in James Ash's monograph *The Interface Envelope* (2015) via the concept of attention economy.

Ash draws on Bernard Stiegler's *Taking Care of Youth and the Generations* (2010) which, while formulating attention as always technically conditioned, identifies contemporary media forms as producing a new form of attention that blocks reflexivity and criticality. For Stiegler, 'the appearance of so-called new media leads directly to the hypersocialisation of attention through the increasing collaboration among the programming industries to capture audiences, to the detriment of deep attention' (2010: 94). According to Stiegler, this capture, commodification and acceleration of attention leads at its extreme to syndromes like Attention Deficit Disorder which become emblematic of a technical becoming in which temporality is restructured towards constant stimulation.

Ash also notes Johnathan Beller's work (2006) seeking to reconceptualise the cinema as the standard-bearer for contemporary modes of production as a means of extracting value from human cognition in which 'to look is to labour' (2006: 2). But this scopic work is not simply limited to an explicit monetisation of attention and the issues this raises from Beller's Marxist perspective, but to a shaping of the subject in the image of the desires of its economy (2006:5). In this way, the labour of looking produces both monetary and governmental value which enter into a mutually beneficial feedback loop for late capitalism.

In a refutation of Stiegler's idea (2010) that contemporary media technologies restructure attention as a staccato rhythm of ephemeral and superficial retentions, Ash contends that videogames produce an immersive form of attention: 'The games and services discussed in this book are not concerned with producing an incapacity to pay attention for long periods of time, but are precisely about an amplification and opening of the now' (2015: 130). At stake here, for Ash, is not a threat to what Stiegler calls 'deep attention' but that of a body managed and

directed intensively toward the challenges of the present, wherein the capacity for critical reflection and taking action aimed at future goals is continually smothered by the now. Whether there is a strict difference between Ash's reading and Steigler's of the problem of the attention economy of the interface remains, however, slightly unclear. Where it may be valid to point out that videogames manage attention in a sustained manner that undermines Stiegler's observation regarding its acceleration in contemporary media technology, the key problems for contemporary attention that Stiegler identifies in *Taking Care of Youth and the Generations* aren't those of duration, but of depth, what Crogan and Kingsley have described as 'a struggle for criticality' (2012 11). While attention and its economic dimensions – whether an issue of duration or depth – isn't a concept deployed in this thesis, it shares the key aim of bringing to light the rhythms of action and reaction incited by contemporary FPS games and their effect on the critical faculties of players.

Whether the grammar of contemporary attention is fleeting, enduring, superficial, or deep, each state is held as presenting its own dangers. In this thesis, the temporality of the experience of playing the FPS is viewed as fundamentally unstable, making any consistent application of a concept like attention economy problematic. Whether capturing reflex-like reactive tics, cartographically motivated trajectories of navigation, or endlessly rehearsed and repeated gestures, attention fluctuates. However, in each case, I read an immunitary dynamic at play that, rather than being a facet of neoliberal governmentality and having an explicitly economic dimension, intersects with neoliberalism's requirement for insecure subjects that open themselves to manipulation just as they defend their right to freedom. Because of this focus on the immunitary nature of the player's interface with the FPS apparatus, important aspects of the economic strategies of EA and Activision, as well as the nature of their modes of production conceptualised above as a form of cognitive capitalism are not encompassed by this thesis. These elements do, however, form part of the milieu in which the autoethnographic and image analysis that form my methodological approach are situated.

3.4 A search for origins and the excavation of the FPS

Another solution to the methodological challenges of analysing ergodic forms which does not centre on its technicity, materiality or economic dimensions which is specific to two major pieces of research on the FPS has been to analyse the form via the construction of a historiographic narrative of its origins. Such an approach seeks to broadly characterise the experience of play as a product of the history from which the FPS emerges. Most notably, Alexander Galloway's chapter 'Origins of the First-person Shooter' (2006), suggests that the FPS's mobile and temporally persistent gamic vision is the result of an essentially compromised cinematic aesthetic tradition, a destiny that the videogame form emerges to fulfil. This search for an origin reveals a reluctance to approach the FPS on its own terms, via the creation of a lineage from which an essence can be identified and its present concretised. In this way, the performative aspect of gamic vision, which is otherwise manifestly present in delirious experience of playing, is subordinated to a previous image culture's perceived limitations.

In a methodologically similar fashion, Patrick Crogan (2011) has engaged in what could be considered a counter-history to Galloway's suggestion of a cinematic origin for the FPS in the form of exploring its relationship to the development of information systems in the 1940s and 1950s. Where Galloway situates the FPS as a kind of reaction against the limitations of an extant image culture, Crogan charts the form as a continuation of the logic of cybernetics that operates by implicating human beings in what Aarseth (1999) has called 'cybernetic loops' that bracket and enframe their potentiality. As in Galloway's work, Crogan locates the meaning of what happens when the FPS is played in a historiographic narrative of its past. Despite the mention of experience in the title to his chapter, Crogan's work pauses at the threshold of analysing the embodied event and screened image of the FPS itself. At issue for Crogan is the broader concept of experience and its bracketing by cybernetic systems with which the FPS player becomes entangled. In this way, by producing an account of the general parameters established by the videogame's origins in information technology and cybernetic systems, Crogan avoids a totalising reading of the particularity of this experience as essentially 'human.'

While this construction of an origin avoids the opportunity cost involved in attempting to render the uniqueness and contingency of the event as a text-like object, the concepts of 'gamic vision' and 'experience' are historical lenses for analysing the game as an event rather than evidence of

this analysis itself. Disregarding the complex and entangled relationship the FPS has with previous image regimes and technological developments would decontextualise it from its past, but the idea that such analyses and arguments for its origins can somehow solve the problem of the intangibility of the unique event of the process of playing risks yoking the FPS to narratives of its descent.

In his essay 'Nietzsche, Genealogy, History,' Foucault characterises the genealogical method against the search for origins and continuities in traditional historiographic narrative approaches as follows:

Genealogy does not oppose itself to history as the lofty and profound gaze of the philosopher might compare to the molelike perspective of the scholar; on the contrary, it rejects the metahistorical deployment of ideal significations and indefinite teleologies. It opposes itself to the search for 'origins.' (1984: 77)

Foucault's method operates to decouple histories such as those of mental illness and imprisonment from their common-sense historiographical narrative chains and produce an encounter with these epistemic and institutional forms as singularities. Militating against both continuity and destiny, the genealogical method rejects the idea that the present state of a discourse can be rationalised under a single originary essence and instead seeks to approach objects as products of their moment, often in terms of accidents, errors or intentions lost in the depths of time. Later in his essay, Foucault notes that, genealogy 'will not be reticent-in "excavating the depths," in allowing time for these elements to escape from a labyrinth where no truth had ever detained them' (1984: 80). Foucault suggests that we approach the past like an archaeologist who by necessity only has recourse to an encounter with the unearthed object itself and the strata of earth from which it is excavated. The systematic description of discursive and non-discursive objects liberates them from unitary narratives of the past, reintroducing heterogeneity and diversity. Time, in other words, is not an evolutionary chain in which the present is an inevitable outcome of a Darwinian survival of the fittest, but is defined by its enormous and impenetrable depth, what Siegfried Zielinski has called 'deep time' (2006).

Referring to epistemic changes in the calculation of the age of the earth in the nineteenth century in which biblical timelines came to be challenged by palaeontological and geological deep time, Zielinski emphasises how a palaeontological (2006: 3) rather than narrative or evolutionary account of the development of media forms needs to be undertaken if we are to

understand the contingent and chaotic nature of our present media ecology. Zielinski (2006: 7) has argued for what he calls a 'variantology' of the media that seeks out dead-end technologies, approaching them as singularities, ruptures and potential moments of flux. Such an approach aims to apprehend media objects as individual variations that held the potentiality for alternate futures. This approach acknowledges that origins are never singular, essential or the point of emergence for the foreordained or evolutionarily superior. But what does this idea of deep time have to do with a methodological approach to contemporary forms such as the FPS?

In promotional material released by Activision (Activision Blizzard 2015) celebrating the release of *Call of Duty: Advanced Warfare*, the text proudly proclaims that over one hundred billion multiplayer matches have been played on the franchises' servers – amounting to almost three hundred million (300,000,000) English football seasons. This amounts to a staggering accumulation of time spent by players, reaching into the millions of years and dwarfing human history understood as a single progressive timeline beginning at some localisable genetic threshold. Just one franchise of FPS has, over a relatively short period, accumulated its own deep time, aeons of player experience that conversely multiply and accelerate in a fathomless present in which the event of playing seems to become entombed. Acknowledging that the present also has a temporality akin to a deep time in which coming to grips with our political and technological reality in its totality becomes impossible, W. J. T. Mitchell has argued that:

the present is, in a very real sense, even more remote from our understanding, and that we need a "paleontology of the present," a rethinking of our condition in the perspective of deep time, in order to produce a synthesis of the arts and sciences adequate to the challenges we face. (2005: 324)

An archaeology of the deep time of the FPS's present is required in which the aeons of player experience that have accumulated in less than two decades are excavated and encountered first hand and made present. Vivian Sobchack has characterised this excavation and literal representing of the deep time of the media as a recovery and description of 'the 'techno-historical event' (the epistemic and sensual conditions called into being) that each of these artefacts inaugurates through a transhistorical *operative practice*' (2011: 324). Given the intangibility of the intense act of playing the FPS, which is evidenced by both its rapid generation of experience and the way this temporality has been somewhat excluded from work privileging the form's origins, just such an effort at elucidating its sensuality as an act of knowing seems pressing.

This does not entail a dismissal of the important work undertaken in mapping the technical, material, economic and historical conditions that have produced the FPS and continue to influence how players act within its sphere. What the approaches discussed above provide is an alternative mode of bringing the FPS to light from the problematic position that textual analysis takes up regarding the videogame. In terms of the historiographic work discussed above, by suggesting that either a general and human 'gamic vision' or a kind of intensive administration of experience are the products of playing, Crogan and Galloway can analyse the form without becoming entangled with its event: its intense contingency of image and sensation, its confusing, hallucinatory and corporeal flow and deep time. This project seeks to allow an encounter with the military FPS to complement work on its technicity, materiality, economy and pre-history. While certainly engaging with the history of the FPS, I primarily approach the event of playing decoupled from its historical discourse, mapping the production of the intimate cybernetic feedback loop between player and game (see also Giddings 2014) necessitating what Foucault called 'eventualization':

As a way of lightening the weight of causality, "eventualization" thus works by constructing around the singular event analyzed as process a "polygon" or, rather, "polyhedron" of intelligibility, the number of whose faces is not given in advance and can never be taken as finite. One has to proceed by progressive, necessarily incomplete saturation. (2002: 227)

Foucault approached the past by cutting the chains of historiographic causality, but he also acknowledged that by approaching specific objects and discourses as events that no totalising account of their operation or practice could be theorised. Similarly, by thinking about the act of playing the FPS as an event, there entails a degree to which the origins, technicity, materiality and economics of the form need to be, if not discarded, then put to one side in order that the process of playing can be elucidated on its own terms. And like Foucault's approach, foregrounding the player's dynamic and singular encounter with the apparatus of the game can never be taken as a definitive or final statement. An eventualisation of the FPS from its delirious present, from its baffling accumulation of deep time, is the process of mapping its sensorial conditions, but like an archaeologist who infers the shape of an amphora from a shard of its rim, a fragment from which to imagine the whole is all that can be grasped.

3.5 An autoethnography of the FPS

In his work charting how *Call of Duty 4* captivates the bodily and spatial skills of its player, James Ash (2013) has undertaken research of FPS players consisting of ethnographic interviews he coordinates with insights gained from his own experiences of playing the game. In relation to expressing the way the affectivity of the game produces a combination of intense physical effects and a loss of memory, one of Ash's participants reports that the game-time 'becomes like a blur. I feel physically exhausted after a long session, yet I can't really remember what went on...I am left with more of a feeling than remembering things. (2013: 43)

A strength of the use of ethnographic interviews lies in the way that it takes the contingency of what Aarseth calls the game's unique 'semiotic event' (1999: 33) and coordinates it with impressions of the experience of playing. The use of ethnographic methods the study of digital media is by no means exclusive to research into videogames and their players with Pink et al. (2016) highlighting the how ethnographies of the digital 'highlight the central role of media platforms in shaping the sensory experience of the world in and through digital media' (2016: 24). Ethnographic techniques of observation and recording (through writing or by other means) provide the researcher with a glimpse into what might be termed the 'inside' of a particular culture to the researcher. In Ash's work while his interviews supply the necessary corollary of player perception and sensation to what otherwise might be reduced to a description of the flow of images at sixty frames per second, the interview also distils this sequence into language, rendering it accessible to a hermeneutic analysis of the second order; gameplay translated into a text in relation to which the researcher can maintain, or claim to maintain a distance or neutrality. The reports of his participants essentially mediate between Ash (outside) and the game (the inside), crystallising in written text as a form of evidence that also supplies a scholarly distance and appearance of objectivity.

Ash's article is theoretically and analytically rigorous, his argument is concerned with charting the affective relationship between the FPS and the player but stops short of attempting to connect this theorisation with what this 'attunement' of the body amounts to in a critical sense, further explored in his monograph *The Interface Envelope* (2015). Pink et al. note that one of the key aims of digital ethnography lies in the desire not to simply elucidate a particular technology and the conditions it brings into being, but how these conditions form our 'material, sensory and

social worlds' (2016:7). While Ash's methodological approach articulates how the affective regime of the FPS connects to various understandings of the body's constitution by technology, the meaning of this constitution is demarcated by the limits of the text itself. The question raised by the quote from Ash's ethnographic interviews is what the videogame's powers to make us sense more intensely, while losing our powers of recall might mean for Western culture. It is precisely in making these linkages that this thesis will proceed.

To do this, the limits of the 'outsider' perspective of the ethnographer and its effect on the target of the research – the 'inside' of the player-game system need to be challenged. In effect, the cybernetic event of playing the game – an entanglement that challenges the very horizons of internal body and external world – needs to be written in its own voice, even if this means translating a din of fractured and discordant utterances. Indeed, it is the tensions, surges of sensation, moments of clarity and confusion I experienced when playing the FPS that demanded I undertake this thesis to gain some sense of what was happening. Adams, Jones and Ellis (2015:10) have emphasised how autoethnography is borne out of the humanities' 'crisis of representation' and the admission that researchers are always part of the world which they observe and, of course, the corollary that the world is also part of us. In his monograph Biopolitical Screens, Pasi Väliaho (2014: 33) has written brief first-person reports of playing Call of Duty: Modern Warfare 3's multiplayer matches with a view to grasping how his experience can be tallied with a reading of the FPS as a neoliberal apparatus that produces an anxious player. I take this first-person reporting of the FPS experience and I extend and intensify it, taking an explicitly autoethnographic approach to reporting gameplay. Even when I analyse the graphic qualities of the HUD, I do so because these compositionally locked elements have shaken me out of the apparent given or utilitarian nature of their appearance or operation. This tallies with Adams, Jones and Ellis' insistence that:

Autoethnography...offers nuanced complex, and specific knowledge about particular lives, experiences, and relationships rather than general information about large groups of people. (2015: 21)

The writers are, of course alluding to the generalising method of so-called 'hard' disciplines against the more singular insights of qualitative research. But what is more important than drawing out the stakes of a methodological contrast, is how autoethnography particularises the

general in terms of the researcher's experience (see also Giddings 2014: 65). Later, Ellis quotes her own work *The Autoethnographic I*, noting that, 'I write when the world falls apart or the meaning I have constructed for myself is in danger of doing so' (cited in Adams, Jones & Ellis 2015: 39). A moment of rupture in the researcher's understanding of her experience, productive of a void, needs to be written to be understood. When I write about the commonplace artefacts of the FPS interface, like the crosshairs or the mini-map, I do so because what had seemed like a simple, common-sense or instrumental element of the interface suddenly became an enigma to me, a black box of potential actions and sensations that demanded decoding.

Kathleen Stewart has suggested in the context of her own exploration of bereavement that personal writing is able to chart 'how force hits bodies, how sensibilities circulate' (2016: 661). The FPS is a radically different context to that being explored by Stewart. However, she is describing how writing can capture and reproduce the moment in which affects crystalise into emotions and generalise into forms of conduct which act like a contagion. If there is a particularisation of the general at stake in autoethnography, then, and by the same token, there is a desire to chart how particularities spread and contaminate, if not generalise. With this circulation of sensibilities in mind, it is worth noting how Lahti has attested to the 'empathetic' parallel and doubled movements in which players crane their necks for better views on objects displayed on a two-dimensional screen and jerk away from sources of danger (2003: 163) as evidence of the close circuit of identification between the player and the game (see also Crick 2010: 266, Swalwell 2008: 87). This kinesthetic mirroring is evidence of the blurring of subjectobject relations that occur in videogame play. But the body isn't simply a surface or a set of gestures; rather it is defined by its depth, its network of systems and organs that are also subject to the videogame's affective influence. Sue Morris has noted how the deep strata of the player's body are stimulated and modulated, in an 'involuntary physical reaction...in the form of a systemic adrenergic response, in which heart rate, blood pressure and breathing rate are increased' (2002: 87). Issues of resources and expertise in measuring these physiological changes preclude the collection of such data and its analysis in the argument that follows. However, my own autoethnographic writing seeks to elucidate the videogame as a phenomenon by mapping its relationship with the perception and sensations experienced by the player offers an alternative means of capturing the game's body.

By presaging my analysis with autoethnographic descriptions of gameplay, I hope to evoke, if not fully capture, the actions on-screen, the psychological effects of my play and the affective relationship between my body and the game. However, writing, even according to autoethnographic accounts, has a reductive quality, potentially being cast as 'a dictator, an assault' (Stewart 2016: 660). Philosopher Brian Rotman has emphasised how the practice of alphabetic inscription is productive of a disembodied subject violently separated from their somatic gestural communicative potentials:

Writing 'I,' pointing to the self in writing, is in effect making writing circle back onto the writer and confronting the self with a virtual simulacrum ...an unembodied being outside the confines of time and space operating as an invisible and unlocatable agency. (Rotman: 2008: 7)

This represents an unpromising basis upon which to found a description of the videogame's interception and management of the player's sense of self, taking in both explicitly somatic effects and more abstract psychic impressions, like fright, for example. However, where Rotman problematises the disembodiment that the formation of the written and writing subjected produces, writing is also ineluctably the carrier or mirror upon which this process becomes visible. It is this ghostly and chimeric written 'I' – both everyone and no one – that cuts to the heart of the limitation of autoethnographic writing and why it needs to be complimented with seemingly contesting modes of analysis. The 'I' that writes itself in the passage below is a disembodied authorial voice attempting to express the intensity of the perceptual and sensory front line of the FPS – a true child of the game, to paraphrase Herr. But the 'I' is also inescapably me; compromised by my own desires, politics and conceptual and discursive HUD on the game and the world. I am no more *all* players or a true child of the game than I am *none* of them. I have provided a sample below:

Battlefield 4 (2013) | Conquest | 'Golmund Railway' | April 2014.

During a game of Battlefield 4's 'conquest' mode on its large scale multiplayer map Golmund Railway, I found myself sprinting across a large hilly open space. There were no enemies or objectives in sight and, for a time, the rolling of my avatar's running body seemed sufficient to capture and hold my attention. The frame stayed relatively steady for a few seconds, pointing forward, rocking and wave-like, not aiming or scanning to acquire a target. A jet fighter piloted by

another player – friend or foe, I couldn't tell – arced across my vision, underscoring the great scope of the map, and the extent to which my avatar had become marooned, separated from the game's objectives. I didn't bother to zoom and aim at its rapidly disappearing form.

When we write we are being written by writing. When we play videogames we are being 'played' by playing. I do not say that the recourse to autoethnographic writing solves this problem, from which there is no escape. Rather, the aim is to capture the coming into being of the subject and to speculate on its character, or lack of. It is this entangled double enframing by technology, (both by writing and the FPS) that this thesis, rather than trying to see beyond, must in some sense become in the first instance. It is the constructed and self-constructing 'I' by the game and by writing that my writing can reveal, nothing more, nothing less than a phantom of the event. But, this confused, stimulated and discombobulated written spectre is perhaps an insufficient 'voice' for articulating the FPS consisting as it does of the event's echoes, its ghosts. And so, a contesting methodological strategy that takes those elements that are not semiotically variable, such as the HUD, is required as a form of analytical anchorage.

3.6 FPS as image

Timothy Crick has argued that elements of the FPS's image, such as the HUD, 'are essentially functional information that the player uses to operate on the game space (rather than within it). Similar to the player's control device, they are not a part of the diegesis' (Crick 2010: 264). The extent to which ideas such as diegesis can be applied to the study of the HUD is questionable because it situates the role that these images play as being in some sense detached from the player's actions and from their immersion within the game's spaces. While this thesis is certainly involved in reporting the experience and event of the FPS as a predicate for its position that the FPS is an apparatus of power, the extent to which processes of subjectification become intelligible is also dependant upon mapping the visible elements such as the HUD. This means that these elements are situated as anything but outside of the reality or fictional world of the game.

As I have been at pains to stress, the semiotic sequence and affective 'body' of the FPS are always in some sense unique: a technological and sensory 'event'. Much of my analyses

proceeds by writing these highly contingent and fleeting sensory flows and coordinating them with the more fixed or consistent elements of the game's HUD - the lens through which the game is encountered. In Chapter 4, I speculate on how the player's affective and reactive gestures are administered and influenced by the ineluctable graphical presence of the crosshairs at the centre of the screen. Similarly, in Chapter 5, I turn to the mini-map as a means of making sense of how the player encounters and becomes embodied within the genre's multiplayer maps. To understand the role that these elements play, they need to be subjected to an analysis that contextualises not only their role in producing the event of player action, but also in terms of how their remediation by the FPS reconfigures their deeper historical values.

In his work *Studies in Iconology*, Erwin Panofsky proposed a programmatic approach to the interpretation of the image, which progressed through three stages of analysis: the basic elements of composition, how these elements coordinate to produce an iconographic subject, and finally, the intrinsic meaning of the image arrived at via what the first two elements say about the time and place of its production. It is this latter stage in which an iconological meaning that exceeds the narrow context of the visible is opened to analysis. By way of an example, Panofsky writes the following in relation how one might analyse Da Vinci's *The Last Supper*:

As long as we limit ourselves to stating that Leonardo da Vinci's famous fresco shows a group of thirteen men around a dinner table, and that this group of men represents the Last Supper, we deal with the work of art as such, and we interpret its compositional and iconographical features as its own properties or qualifications. But when we try to understand it as a document of Leonardo's personality, or of the civilization of the Italian High Renaissance, or of a particular religious attitude, we deal with the work of art as a symptom of something else which expresses itself in a countless variety of other symptoms, and we interpret its compositional and iconographical features as a more particularized evidence of this 'something else.' (1972: 8)

If we take the central element of the HUD as an example and subject it to Panofsky's tripartite strategy of compositional, iconographical and iconological image analysis, we start by concretising its form and composition. In a game such as *Call of Duty: Black Ops* (2011), the crosshairs are a centred cluster of four lines arranged at right angles, which stop short of intersecting, not quite forming a cross. So far, this description covers compositional arrangement. The second iconographical stage of analysis extends this description of the image

and its composition and coordinates it with its conventional features and meaning. In the case of the crosshairs, we have a graphical element that is at once denotive of the centre of the ingame camera and thus the reticule of an optic lens and the location of our aim, like the sights of a sniper's scope. Thus, both the conventions of the camera and the sights of a firearm are made intelligible. And, of course, if we are to play the game with any efficacy, the graphical sign of the crosshair needs to be understood by the player. Without this implicit understanding any act of aiming would have no fixed point of reference on the screen and would be rendered essentially random.

A graphical element like the crosshairs cannot be read as evidence of an individual artist's personality. However, the idea that an element of the image has what Panofsky would call an intrinsic meaning, signalling the values of a historical moment that exceeds its basic visibility, 'a symptom of something else', is an important one for this study. Taking the bare description of the crosshairs, its location in the image, its denotive meaning as the centre of both the in-game camera and the sights of the player's weapon as well as the allusion to the importance of aiming to the image, we can start to think about what this process of centring, aiming and ultimately firing might mean in a broader context. This would entail a foray into the role that centring has played in previous image regimes, like that operating in Da Vinci's *The Last Supper*, for example. But this would only act to provide an insight into how the FPS alters these dynamics by coordinating how the activity of aiming and firing as facilitated by the crosshairs is legible within our political and economic context.

It is at this moment that we reach the limit-point of Panofsky's methodology for studying the videogame, because the HUD as a fixed lens moves in accordance with the player's actions and reactions. Previously, I noted Hans Belting's conceptualisation of the image as 'anthropological' in the sense that, for Belting, the image is the product of a synthesis between the medium and the body of the viewer (2011). This means that images cannot simply be approached as a series of stable semiotic signs with equally stable or intrinsic meanings, but are a kind of phantom that must be actively animated by human beings, giving them a ghostly life. Of course, this immediately suggests that a literal manifestation of this animation of the image occurs in videogames, which are animated not only within the body but materialise externally in gesture. If we think about the crosshairs as an element of an image that is anthropological in nature,

then a certain kinetic charge is introduced in which the image begs and baits the player to literally animate it in something akin to a process of supernatural possession.

Belting goes on to argue that approaching the image as anthropological means that notion of an image as external and open to sober analysis becomes difficult because his idea raises the issue of control:

From the perspective of anthropology, we are not masters of our images, but rather in a sense at their mercy: they colonize our bodies (our brains), so that even if it seems that we are in charge of generating them, and even though society attempts unceasingly to control them, it is in fact the images that are in control. (2011: 10)

This colonisation of the body by the power of the image is particularly germane the study of the videogame because the image is not simply animated in the brain, but by the player's gestures. These gestures, rather than expressing only the symptom of this invasion, are also translated into changes in the medium. On one level, an affirmative reading becomes available in the sense that the image varies per its kinaesthetic animation by the player, perhaps resisting this colonisation. The player's gestures certainly enter the screen in ways that viewers of previous image regimes could not. However, the fact that the animation of the image is doubled both in the body and on the screen is suggestive of a more fundamental and total colonisation. This is because the apparatus intercepts and realises what was previously a province solely of the body within a context of fully calculated possibility. The dividing line between the apparatus and its image and the body of the player is ever more ambiguous as a current of colonisation passes ceaselessly between each. In this situation, the player not only animates the image in their body, but their body is animated by the image and the form of this animation is mirrored in onscreen as the predicate for a new cycle of colonisation.

This intensive invasion and animation of the body and the issue of control that this situation raises only intensifies in importance when we consider the image as a kind of subject rather than a semiotic sign. W. J. T Mitchell has re-cast the image (a 'picture' in his terms) as a kind of anthropomorphised and indestructible fetish object that is not only a sign or symbol of a culture's needs and desires, but as the subjectivised holder of these needs. Mitchell's idea is that the image is, to all intents and purposes, alive: 'Images are like living organisms; living

organisms are best described as things that have desires (for example, appetites, needs, demands, drives); therefore, the question of what pictures want is inevitable' (Mitchell 2005: 11). This repositioning of images as not just vessels of desire, but as possessors of them, represents a radical shift wherein images are no longer the object of interpretation but subjects that need to be approached via a dialogue or negotiation. This raises obvious methodological questions: if the image is 'alive', how do we identify its vital signs? Can we take the pulse of a picture? And if the power of an image is displaced to its own desires and expressed in its own voice, how can we ensure that it speaks to us?

Key here is the way that Mitchell sees the fetishistic subjectivisation of the image as 'an incurable symptom' (Mitchell 2005: 31). The picture takes shape as a kind of subjectivised, animated object with an ineluctable and indelible fetishistic aspect that must be considered, rather than remedied. This incurability suggests that Mitchell believes that this anthropological aspect of the image is a facet of its ontology. This renders any methodological approach to analysing pictures to be a form of interaction and negotiation with the constant of their fetishistic desires.

The question 'what does the videogame want?' seems as apt as Mitchell's initial question in framing the image as something with its own desires and needs. My intention is to treat the videogame as being 'alive,' as having desires, in being anthropological in the literal sense that the image is not only animated by the gestures of the player but that these gestures are legible as responses to the game's desires. When the player lines up the crosshairs with an enemy and fires, they are not only expressing a desire to score points that translates to ludic advantage, nor are they only expressing a deeper desire for a sense of security within the game's spaces. By filling the crosshairs and centring the perspective on an enemy, the player can also be understood as in some sense answering the visual desire inherent in that symbol. In asking 'what does the HUD want?', the answer is 'to become aligned with the avatars of the enemy'; however, it is the player that must respond to this desire, to realise it. In some sense, then, there is a feedback in the activity of targeting in which the player is also placed in the game's sights. The idea that the FPS player, rather than being active with a liberated 'gamic vision' (see Galloway 2006) is, instead, simply responding to the game's desires is a powerful corrective to utopian readings of the form.

Each time the player acts, they respond to the desires of the image, giving it what it lacks: life. The player's living corpus is on hand to fulfil this need and a gesture manually enacted, intercepted by the technology of hardware and software, and translated into data and animated on-screen. The videogame image is alive, or perhaps, undead in the sense that it requires human action to come into being: a vampiric technology that takes the player's life and translates it into its own animus for vitality. Taking the idea that we are beholden to an image that demands our activity and it processes back into its visual form raises the question of whether the apparatus effects not a subjectification of the individual, but an imaging of the subject.

Taking Panofsky's programmatic approach to elements of the HUD as a starting point and then speculating on how the life and desires of this image act as a spur to player action takes my autoethnographic writing and re-sites it as a reaction to the power of the image. But because I always begin with the experience of the game, thinking of this event in terms of how it has been shaped offers a way of untangling and decoding it without predetermining its enaction. Taken together, the experience and its more forensic analysis as an image aim to produce a portrait of how the player is constituted and shaped by the game as a dynamic process, a play of incitements and of power.

3.7 Mapping the FPS as a diagram

Gilles Deleuze ends his chapter 'A New Cartographer' in his eponymous work *Foucault* with the titular critical theorist's declaration 'I am a cartographer' (Deleuze 2006: 38). Foucault is not claiming here to be a creator of literal maps. For Deleuze, Foucault was a cartographer of power in terms of its relations, rather than as a stable resource that can simply be hoarded and spent here and there by stable hierarchies of authority. For Foucault, power is always the expression of a relationship. It articulates a kind of imbalance that is always in play and structured by certain abstract and pervasive discursive and non-discursive arrangements or 'diagrams' that manifest per the particular desires of authority at a moment in history. The diagram is not a literal graphical model, nor is it a purely abstract and metaphysical object. Deleuze's definition makes the relation with cartography explicit:

The diagram is no longer an auditory or visual archive but a map, a cartography that is coextensive with the whole social field. It is an abstract machine. It is defined by its informal functions and matter and in terms of form makes no distinction between content and expression, a discursive formation and a non-discursive formation. It is a machine that is almost blind and mute, even though it makes others see and speak. (2006: 30)

The diagram exists when the formalised matter (like the prison) and its discourses (of reform) interplay to produce an operation (punishment) whose aim is to shape the humans implicated within it. Both the practice and the conduct that is the product of the diagrammed subject is, for Deleuze, a micro-manifestation of the operation and desires of power at the macro level— this is what he means when he says that it is a cartography, which is coterminous with what he calls 'the whole social field'. Importantly, though, conduct is not a fixed or static, but the production of a subject that acts, that moves forward in time, that brings the future into being.

When Foucault produced a cartography of the powered arrangement of vision, architecture and bodies in Jeremy Bentham's panopticon in *Discipline and Punish* (1991), he mapped an apparatus and its effects that functioned as evidence for the disciplinary production of the normalised, docile and trained bodies required for industrial modernity. However, this method was cartographic in the sense that it sought to map not what was said about the prison at the time of its rise to prominence, its stated intensions or simply analyse the various panoptic blueprints commissioned by Bentham, which are certainly map-like. Rather, Foucault notes of his method in *Discipline and Punish* that:

the target of analysis wasn't "institutions," "theories," or "ideology" but *practices*- with the aim of grasping the conditions that make these acceptable at a given moment: the hypothesis being that these types of practice are not just governed by institutions, prescribed by ideologies, guided by pragmatic circumstances...but up to a point, possess their own specific regularities, logic, strategy, self-evidence and reason. (2002: 225)

For Foucault, by mapping Bentham's late eighteenth century prison reform both in terms of the discourse of justice and as a non-discursive architecture and its flows of visual power, the social field of the West in the nineteenth century – the disciplinary society – was brought into being in terms of mapping and in some sense reimagining what was actually done. Such an arrangement of power-relations, the disciplinary force of vision and its effects on the body needed a

cartographer's attitude to be made intellectually tangible both in its immediate effects and in its relationship with much larger cultural, economic and political forces.

Deleuze perhaps encapsulates the essentially 'informal' and immaterial nature of the diagram best when describing panopticism as "no longer to see without being seen' but to *impose a particular conduct on a particular human multiplicity*' (Deleuze 2006: 28 [his emphasis]). Seeing without being seen can be taken as a given by analysing the discursive and non-discursive matter of the panopticon. However, the effects of this arrangement as the practice of shaping and reducing what Deleuze terms 'a particular human multiplicity' can only be achieved via a kind of creative reimagining or mapping of the situation itself.

What follows is an attempt to produce a cartography of the FPS as an apparatus or diagram to capture the kind of subject that it produces or subjectifies with a view to suggesting that it can reveal the character of our economic and political moment. The player's body moving through space and time is the carrier of the apparatuses' effects into the wider world in which normative modes of conduct spread like a contagion. To rework the quote above, we might similarly say that the diagrammatic power of the FPS is not to shoot the enemy without being shot, but to impose a form of conduct on the multiplicity of the player. However, I do not view the FPS as a disciplinary apparatus that 'imposes' by recourse to a transparent and legible central overseer or authority. Rather, I approach the FPS as a diagram that affectively incites a form of self-defensive conduct, where power operates at one remove from the subject. However, it is also true that the practice of playing the FPS, is one that exceeds the narrowness of ludic, narrative or spatial discourses on the videogame, just as the power of the panopticon exceeded the discourse of reform.

The idea that producing a cartography of the forces operating within an apparatus can provide an insight or glimpse of a diagram that is the watermark of a moment's politics is a method that I apply to the FPS. I engage in the practice of playing the FPS and seek to map the unfolding and often chaotic experience of playing the game via autoethnographic accounts. I then attempt to come to terms with and read this complex screen-based and embodied event in terms of the interplay between the player and the ineluctable and desiring elements of the image, such as the HUD, which have largely been ignored by existing literature, or characterised as operating

outside of the game's important mechanics (see comments on Crick 2010, above). My approach takes neither the apparently self-evident position that the FPS is a 'game', nor the discourse around the form (critical or otherwise) as determining statements on its practice. Rather, I seek to map influential aspects of the image that have otherwise appeared marginal and their effects on the player, such as the crosshairs that sit in the centre of the screen as incitements to certain forms of conduct. But perhaps more crucially, unlike almost all the literature on the FPS mapped in the previous chapter, I retrospectively write accounts of the process of playing and speculate on its meaning. In other words, I map the FPS as a diagram where content and expression enter a zone of indistinction. This is where adapting concepts like Belting's idea that the image is anthropological by charting how its power takes hold of the body and its gestures means that the image becomes the very locus of power and the articulation of its relations. In other words, the image taking in player and game stops being a sign to be read, but becomes commensurate with the diagram itself.

3.8 Conclusion

My methodological approach in this thesis that, at its most lofty, attempts to map the practice and event of the FPS as a diagram of neoliberal governmentality is an often lowly and impure mongrel that takes two seemingly irreconcilable approaches and seeks to put them to work for its benefit. By claiming the primacy of the videogame as an event, I acknowledge its semiotic uniqueness, its entanglement with the body of the player. But given the limitations of the written word, this event and its authoethnographic exhumation from the beguiling deep time of the present only makes it onto the page in a deeply compromised form; a universal player and an individual both intrinsically coexist in the 'I' that reports its experience of the game.

In a kind of methodological multiple-personality disorder, I turn to the analysis of the image for a counterbalance - a scholarly 'I' joins the methodological throng. But acknowledging the importance of the elements of the FPS that aren't semiotically unique, such as the HUD, and subjecting them to an iconographic and iconological analysis ushers us back into the realm of the tangible, even if these elements are approached as colonising and wanton subjects in their own right. If acknowledging the uniqueness of the event of the FPS is a necessity, then so too is emphasising those elements that aren't unique and trying to see in them some template for

capturing the commonalities of player action. This does not mean that the singular is made general in any more profound a way than the diagram itself operates to take human multiplicities and administer them into a mode of conduct. However, the test of this methodology or dialectic of methodologies lies not in its justifications, in its proclamations of superiority, or its apologies for its omissions and its embellishments. Rather, in its efficacy during the analysis of this thesis itself upon which the next three chapters will stand or fall.

4

The Immune Image

4.0 Introduction

While up to a certain point human beings projected themselves into the world, and then also into the universe, now it is the world, in all its components...which penetrates us in a form that eliminates the separation between inside and outside, front and back, surface and depth: no longer content merely to besiege us from the outside, technique has now taken up residence in our very limbs.

(Esposito 2011: 147)

This chapter charts the player's reaction to the way the 'technique' of 'twitch shooters' such as Activision's *Call of Duty* franchise colonises the body and is expressed in the gestural movements of the first-person perspective. I see these gestures as an immune reaction to the FPS's systematic production of insecurity, and suggest a desubjectifying effect which renders the player an object-like subject, an immune image. Giorgio Agamben has conceptualised gesture as the locus where the infection of the body by political technologies is exteriorised (2007: 150). This idea is echoed by Pasi Väliaho in his mapping of the gestures and bodily politics of early cinema (2010). The characterisation of gesture in each of these works as expressing the body's modulation by power and specifically by moving image technology is taken up in this chapter at applied to the FPS. Unlike the cinema's relationship with its spectator, the FPS makes the player's gestures visible, mirroring them in movements of the perspective. This more literal corporeal aspect of the FPS's aesthetic lends it to an alignment with Agamben's (2007: 152) idea that the gestural nature of the cinema is restorative and open rather than deathly and fixing. A large part of this chapter is concerned with whether the FPS articulates a crisis in gesture and the contamination of the subject by power, or if the genre can be understood as being

continuous with Agamben's understanding of early cinema being gestural – a pure means lacking in political ends.

As an extension of the corporeal nature of this appeal to the history and concepts of gesture, the following pages reconceptualise Alexander Galloway's (2006) idea that the FPS produces a 'gamic vision'. I suggest a more tactile and vulnerable metaphor: the 'gamic skin' that is not only constitutive of the player's point of view, but is also the site of haptic interchange. I do not turn a blind eye to the visual elements of the FPS, instead I perceive the FPS's relationship with the player as one where senses are always embodied and defined by their interrelations. Unlike Galloway, I do not understand the corporeal exchange with the FPS as achieving a closer approximation of human vision or embodiment (Galloway 2006: 65), also echoed in Timothy Crick's conceptualisation of the FPS perspective as a form of 'body-centric vision' (2010: 262). Rather, I approach the player's perspective as a sensitised cyborgean membrane that is tattooed by aesthetic values alluding to the monocular vision of the camera, renaissance perspective and the cinematic frame. This aestheticised skin mirrors, but also shapes gestures and is the locus of the player's tactile contact and identification with the game.

The intercepted, translated and mediated nervous gestures of the player are mapped in the following pages as a twofold attempt to align the envelope of identification represented by the gamic skin of the HUD with the exterior of the game's fully rendered, actionable (Galloway 2006: 67) and threatening (Morris 2002: 82) spaces. In the first part of my analysis, I take aim at the gesture of aiming and firing. This gesture is conceptualised as an infection into the body of the player of compositional regimes of centring and an attempt at the rationalisation of space, which is productively coordinated with the values of regimes of calculated single point perspective first developed in the Italian Renaissance. I then turn away from the centre's capacity to shape the player's gestures and affectivity and consider the space beyond the gamic skin and the borders of the screen space. I speculate on the effects upon the player when the off-screen space mutates from its Deleuzian conceptualisation as an opening to the virtual operation of the frame developed in *Cinema 1* to become a menacing presence that must be met with a response by the player's actions.

The purpose of this chapter is not simply to map the FPS and its affective interchange with the player as in recent work by James Ash (2013), but to understand it as an apparatus of neoliberal governmentality that operates by crystalising the player as an individual subject, which then ensures their activity by fostering insecurity. I situate my analysis of the gestural gamic skin within Roberto Esposito's concept of biopolitical immunity and the tendency for immunitary systems to enact a double negation that defines the body negatively in relation to its exterior (see Esposito 2011: 175). The immunitary body that ultimately negates itself in an excessive protective response is understood as the product of a neoliberal *dispositif* that administers the individual via the expression of their own liberty framed as a right to self-protection. This immune reaction is leveraged to make the subject react in predictable, self-defensive ways in a context where competition and insecurity are actively fostered to produce economic activity (Foucault 2008, Lazzarato 2009).

Yet where Esposito's interpretive category of immunity oscillates between the macroscopic scale of nation-states and the microscopic processes of the body's immune system, this chapter argues that immunity is also visible as a gestural and aesthetic phenomenon. I ask whether this commingling of the player's reactive and self-protective gestures and the image by the FPS apparatus is evidence of the way the individual subject is defended, desubjectified and ultimately negated in the neoliberal world. However, an answer to this question will be provisional, as this chapter charts the shocked and disoriented player who first picks up the game pad and takes the plunge into *Call of Duty's* corporeal and visual regime: not a forward-thinking player, but one cut adrift in the current of the FPS's affective stream. This contrasts with considering the habituated FPS player as an anticipatory figure, an end-product of the medium's operating necessities as described in recent work by Väliaho (2014) or attempting to conceptualise a totalising character to the activity of playing the FPS, described within Alexander Galloway's concept of gamic vision (2006). With the unique conditions of this first contact with the affective power of the game in mind, James Ash has noted that 'For beginners, the game is saturated with an atmosphere of unease' (2013: 41).

The unhabituated player is a body on the verge of being shocked by the game because they have yet to be somatically and analytically 'attuned' by the apparatus in Ash's terms. It seems clear that the novice player's insecurity is a product of the game's heightened capacity to take

them by surprise. In *Beyond the Pleasure Principle*, Freud isolates shock or fright from other responses to danger, arguing that 'Fright...is the name we give to the state a person gets into when he has run into danger without being prepared for it. *It emphasises the factor of surprise'* (2010 [1922]: 12; emphasis added). In this chapter, I align fright with affect. It is less a qualified emotion than it is an intensity, representable only in twitches, and tics (see Massumi 2002: 28). Understanding how the player's actions are driven by a desire to avoid being shocked or frightened and attempting to decode the untidy and spasmodic image that results is my first aim in the pages that follow. From there, the analysis becomes a matter of conceptualising how these gestures can be read as evidence of a diagrammatic operation (see Deleuze 2006) that is consistent with the entire social field of the West.

4.1 Gesture in crisis and the twitch shooter

Game Log 4.1

Call of Duty: Black Ops (2010) | team deathmatch | 'Nuketown' | January 2012.

My thumbs press against two analogue sticks, one controlling a strafing movement across the ground, the other the look of the perspective independent of the travel of my virtual body. I hit the shoulder button and run, the perspective swaying with each pace, but also twitching from side-to-side as I attempt to locate enemy players lurking outside of the perspective's periphery with flicks of the right analogue stick. But soon, this attempt to survey my surroundings starts to bear on the travel of my avatar, the visual jerks of my in-game look confuse my supposedly independent trajectory through space.

I stop and the seasick world resolves into something more stable. But I realise that I have drifted into the map's centre, my movements dizzied whatever notional course I was on. The perspective now presses against the jaundiced surface of a school bus, uselessly framing the pixelated texture of its bodywork. The rest of the map and enemy players are out of sight — behind me, beyond me, elsewhere on the map.

I catch myself physically leaning back as I twist the perspective to the right, searching for a target, dragging the frame left again, it flinches about as my hands mangle the controller. This chaotic survey takes in an enemy rounding a nearby abandoned car and I pull the crosshairs toward them, firing wildly. But the gesture goes astray, overshooting and bullets hurtle skyward – the

horizon pitches and rolls. Again, I feel my body tense and move on my sofa as if these movements might translate to the screen. Yanking the perspective back into line, I overcorrect. Now the camera tips towards the floor, all the while zig-zagging with the right stick, trying to centre on my target. My ammunition runs empty, spent and useless. I am finally spotted and shot, the perspective convulsing with the impacts, but within a safe pre-programmed range, nothing like the jerking, tipping and twitching attempts to centre the crosshairs on my enemy.

Despite the importance of aesthetic elements such as the idea of the frame and the particularity of the HUD to this chapter, the movements of the first-person perspective on X, Y and Z-axes within the game's multiplayer maps are not understood as cinematic shots — they lack the authority of a cinematic auteur. As a genre long referred to as 'twitch shooters' (Ajami and Campanaro 2001, cited in Juul 2005: 88) emphasising bodily reaction times, the player's activity can't be approached as a form of vision predicated solely on the transcendent and disembodied capacities of the gaze that characterise psychoanalytic models of cinematic spectatorship (see Baudry 1974, Metz 1982, Mulvey 1975). The videogame involves the body's affective sensitivities, instigating changes at different levels of the corpus and translating the body's movements into the screen space. I understand the twitches of the first-person perspective as bodily gestures, which carry the player's relationship with the technique of the game onto the screen.

Discussions about gesture in videogame studies have tended to focus on the practical challenges relating to the capture and translation of intentional movements from the player's body into the screen without the intermediary of a device like the PlayStation's Dual Shock game pad (Kang, Chang and Jung, 2004: 1701). Gordon Calleja (2011: 63) has suggested splitting game control into the realms of the *symbolic*, where there is no mimetic relationship between the player's input in the on-screen action, and the *symbiotic*, where gestures are captured and mapped into the game space or an avatar. This thesis parallels James Ash's (2010) assertion that, regardless of the presence of the control device, videogames are involved in the reorganisation and capture of the player's gestures. But what exactly does the term mean?

Adam Kendon has approached gesture in specifically linguistic and consciously applied terms as movements that 'engage in a conversational move or turn' (2004: 9). Here, gestures are characterised as fundamentally linguistic and intentional, a carnal expression subordinate to the

spoken word. However, Shaun Gallagher has stressed that the relationship between bodily movement and conscious decision making is by no means a straightforward case of the brain consciously directing the limbs (2006: 3). This means that gesture cannot be totally characterised as a simple accessory to language or conscious thought. If the gestures of the unhabituated *Call of Duty* player are utterances as Kendon suggests, then the drunken and chaotic drifts and surges of the in-game camera described in my game log aren't 'conversational turns,' but shouts, shrieks and tics.

Giorgio Agamben's essay 'Notes on Gesture' (2007) suggests that a crisis or pathology in bodily movement and gesture in the late nineteenth century was symptomatic of the way modernity colonised the corpus with regimes of control. For Agamben, the process of the imposition of gestural docility by the economic, technological and political desires of industrial modernity represents an invasion of the body's movements. Here, gesture transitions from an indeterminate and open form of corporeal expression to one that exists only within the confines of language and law (nomos). But this process of the body's capture by power wasn't one without its imperfections, and Agamben describes how it had the effect not only of governing the body, but also of reducing it to a kind of twitching and lunging automaton visible in syndromes like Tourette's:

The patient is incapable of either beginnings or fully enacting the most simple gestures; if he or she manages to initiate a movement, it is interrupted and sent awry by uncontrollable jerkings and shudderings whereby muscles seem to dance (chorea) quite independently of any motor purpose. (2007: 150)

This is a description of 'a generalised catastrophe of the gestural sphere' (2007: 150). Agamben is describing a pathological symptom of what Foucault considered the threshold of modernity – that moment when political power sought to discipline the body of the individual (1991) and invest itself biopolitically in populations as a means of control for the benefit of a healthy and growing national corpus (1998: 139–140). The loss of gestural coherence described above comes to signify a more general move where corporeal life becomes a cypher for the individual subject in the nineteenth century because the regulation of the body and its gestures becomes a matter for external political administration. While Agamben characterises the specificity of the

cancelling of gesture in modernity as a general effect or trend, the role played by apparatuses in effecting this crisis of corporeal control remains somewhat ambiguous.

In his monograph *Mapping the Moving Image: Gesture, Thought and Cinema Circa 1900*, Pasi Väliaho (2010) produces an archaeology of the cinema as an apparatus or locus of the modulation of gesture noted by Agamben. Väliaho excavates the bodily movements that the cinematograph both captured on screen and produced in the spectator as evidence of the wider process through which modernity appropriated and sought to train human gestures. For Väliaho, cinematic gestures make visible and legible the reorganisation of the body that the cinema generates within modernity. As in Agamben's essay, Väliaho reads the gestures of the bodies captured and projected onto the screen at the birth of the cinema as articulating a 'bodily crisis at the heart of modernity' (2010: 16). The product is a spasmodic cinematic body and image and thus a certain spasm in the pedagogy of modernity as a rational project can also be observed.

Rather than being understood as the end-point of the medium's relationship with the body, Väliaho's monograph maps the trauma of a new apparatus being brought to bear on humanity at a moment in history parallel to the shocked denizen of the modern city described by Walter Benjamin in 'On Some Motifs in Baudelaire' (1999). Of course, the corporeality of the cinema cuts across its history, but the specific character of its relationship with the body is context specific. Steven Shaviro has described how the cinema's spectator is 'confronted and assaulted by a flux of sensations' (1993: 32) that exceed easy abstraction into meaning. The somatic power of the cinema remains a key element of its theorisation and experience (see also Marks 2000, Barker 2009, Elsaesser and Hagener 2010).

Väliaho's suggestion that the gestural nature of the cinema in its early history represented a crisis point in how the body articulates how novel and intense the cinema's affective power was in the early nineteenth century – a reaction to what Tom Gunning has described as the shock of 'an unbelievable visual transformation' (2009: 782). Whether the comparatively docile or standardised gestures (if not bodies) of contemporary cinema in comparison to those fleeing the *Grand Café* in Paris in 1896 are evidence of the successful training of the spectator by the cinema after one hundred and twenty years of habituation is an important question, albeit one

beyond the scope of this study. The connection between Väliaho's work and the current question of whether the FPS apparatus establishes a similar gestural crisis in the player's body lies in its characterisation as evidence of the shock of the new.

The gestural crisis evoked in Agamben's description of the body in modernity and its cinematic counterpart mapped by Väliaho are echoed in the tic-like or reflexive movements of the FPS perspective described in the game log that opened this section. The novice FPS player's gestures are sent askew, scrambled, like the individual subject who is unable to exercise motor control and exists as a corpus where the connection between initiated movements and their actualisation is fractured. The player's manual gestures – the lurching empathetic body that confuses its movements in the actual for those on screen and the movements of the first-person perspective – are ruptured, drunken. This discombobulation of the player's corpus is not a syndrome that arises from the body itself but a symptom of the moment that the technique of the game is brought to bear on the player. While this represents a corporeal relationship between the player and the FPS, the fracturing of the novice player's gestures precludes a reading concerning embodiment in terms of its relationship to both an ownership of the body and the idea of agency (Gregersen and Grodal 2009: 67).

I do not make this linkage to argue that the bodily politics of modernity or early cinema are in some sense being revived or replayed by the FPS. The body of the nineteenth century is unique to its political, technological and medialogical context (see Foucault 1991, Crary 1992). However, the resonance between the player's stunted and fragmented gestures, those of Agamben's 'patient' and Väliaho's cinematic corporeal nervousness – that fragmented, dancing, rupture of the bridge between purpose and action – are suggestive of another point of historical change. I would like to argue that the FPS player's gestures signal a crisis of the body in late modernity related to broader changes in its economic and political systems. The specificity of how the player's gestures are incited and why they fracture is mapped in this chapter as being closely related to wider changes occurring in Western biopolitics, an immunitary behaviour that compliments neoliberal regimes of governmentality.

4.1.2 Gesture recuperated?

In Agamben's essay, gesture as pure means becomes the locus where the effects of an authority that takes the body for its own ends becomes visible. But gesture also takes up a broader significance in the characterisation of the cinema as an indeterminate gestural medium. In this way, the crisis of gesture in modernity produces an attempt to recover what was quite literally 'slipping through its fingers' (Agamben 2007: 152) via mediums like silent cinema. For Agamben, 'gesture rather than image is the cinematic element' (2007: 153). Following Deleuze's (2005) position that the cinema has an emancipatory virtuality that always interfaces with the body of the spectator, Agamben argues that gesture is reinstated in the totality of the moving picture. This reading of the cinema as a gestural medium rather than a sequence of fixed images leads to its characterisation as a means lacking in fixed politicised ends, an essentially bodily rather than a linguistic medium (see Metz 1974). Therefore, in this reading, gesture has a kind of double aspect. It is understood as a symptom of bodily crisis in modernity that we see in Tourette's and as a plastic and mobile mode of eclipsing determinate expressions (particularly those imposed by language and the law upon the body) that is revived by the cinema. For Agamben, the state of the open and corporeal nature of gesture is a kind of litmus test for the body's relation to power.

This abstraction of gesture from the body to the operation of the image raises the question of whether the FPS is gestural in this broader philosophical sense or is simply a mirror of a corporeal crisis – evidence of new political and technological contaminations mapping the player's body. But because we are dealing with a translation of gesture into an image regime in the videogame that is fully calculated, the broader and more significant point that Agamben makes about the gesturality of the cinema as an opening to the indeterminate and an escape from *nomos* also needs to be coordinated with the FPS. This suggests not only that a rupture in the body's relationship to authority becomes visible when the image twitches and jerks, blurs and convulses, but that the gestural quality of the dominant visual form of the twentieth century is decisively challenged by one of the biggest media 'franchises' of the twenty-first century, topping ten billion dollars in sales (Poeter 2014).

It is with the possibility of an affirmative relationship between media technology and gestures in mind that I turn to recent work by Brian Rotman (2008). Where Agamben and Väliaho chart the body's spasms in the nineteenth and early twentieth centuries, Rotman takes the Western

written alphabet as an enduring form of mediation that has limited and enclosed gesture and the body and its potentials. The alphabet is framed as a technology concerned with 'imposing it [sic] own medialogical needs on the body, from the evident perceptual and cognitive skills required to read and write to the invisible, neurological transformations which it induces to function' (Rotman 2008: 15). With the establishment of the Western body as a figure involved in being inscribed by and inscribing written phonemes, Rotman asks whether we are capable of eclipsing an alphabet that 'eliminates all and any connection speech has to the body's gestures' (Rotman 2008: 25). In an almost opposite characterisation of the media's relation to gesture mapped by Väliaho, Rotman positions the emergence of digital technology as a possible means of remedying the reduction in the body's expressive capacities. Specifically, Rotman is referring to technologies of motion capture used primarily in recording and simulating bodily movement in video games, such as EA's annual iterations of its FIFA franchise of football simulations (1997–2017) and in the animation of CGI characters in the cinema, like Weta's Gollum in Peter Jackson's The Lord of the Rings (2001–2003) movies.

For Rotman (2008:47) the potential for this technology to capture complex gestures and make them visible suggests that motion capture could form the basis of a new communicative medium from which an expressive gestural language might spring forth. The digital in this case is framed as a technology capable of recouping gesture much in the same way as silent cinema described by Agamben (2007: 152). However, where Agamben (2007:153) sees the cinema as gestural in the abstract sense that it escapes conceptualisations of the image as a calcified and fixed object, Rotman understands motion capture in the much more straightforward sense that gestures can be recorded and 'captured' by it. Rotman is proposing the literal 'capture' of gesture by the image while Agamben understands cinema's gesturality in Deleuzian terms – as an escape from representation. The capture of gesture by a medium and a medium's capacity to be gestural in the sense that it eclipses rationalisation and fixing are opposite moves in relation to the body. This raises the question of whether the FPS which intercepts and captures the player's gestures represents a determination of the body that is anything but gestural.

4.1.3 Gesture image/image gesture

As the player's manual gestures break onto the screen in the form of the movements of the FPS's perspective, we can begin to gain a foothold in reading the image that is being produced

as a form of digitally mediated expression of the player's body. Rotman's understanding of digital technology as enabling the immanent capture and feedback of complex gestures is important for my work. However, this expressive quality, while arguably present in the tics and jerks of the FPS perspective, does not lend itself to a reading of the body in the process of restoration from the reductive imposition of language or political authority. Rather, when considering the critical reading of the effects of new forms of mediation upon gesture in Väliaho's work, the unhabituated player's gestures 'captured' by the game's regime of calculated representation seem more evidential of a corporeal crisis in which the genre's laws or nomos of movement are mapped onto the player's corpus.

The possibility that the distinction between gesture and the image is negated when the frame and the player's movements conjoin arises in this situation. Jonathan Crary has charted what he terms the 'historical constitution of the senses' in the nineteenth century as a moment where vision was captured and disciplined in such a way as to abstract it from the body of the 'observer'. This colonisation of the senses by power effected what he called a 'final dissolution of a transcendent foundation for vision' (1992: 24). This fracture of the clear separation between the subject's senses and the objectifying desires of their political and economic milieu represents a lasting confusion of subject—object relations. While a similar mingling of the subject and the FPS apparatus is clearly at work when we play a round of *Call of Duty: Black Ops*, the key difference here is that this disruption of the delineation between the interior and exterior is not only generated, but realised the by movement of the in-game camera which is also pictorial frame.

This is a moment where life expresses itself within the boundaries of representation. Thus, the FPS image becomes a subject and the subject becomes an FPS image. A new suite of gestures that exceed any unitary 'internal' notion of being remakes bodies to be part flesh and part image. It appears that the player's ability to combine bodily gestures and the operation of the frame to produce a kind of image-subject gives credence to Väliaho's position that '(t)he interior is only a selected exterior, and the exterior, a projected interior' (2010: 81). In the FPS, the body is only a selected image, and the image is only a projected body.

However, if we see a crisis of the gestural sphere in the FPS, it is not simply a replay of the crisis of gesturality of the nineteenth century Western bourgeoisie that Agamben identifies and that Väliaho explores in relation to early cinema. Rather, I would like to propose that what we are seeing is instead a doubling of crisis in the body of the player and the gesturality of the aesthetics of the moving image. The capacity for the FPS to capture and translate the image into a gestural form within its regime of calculation (and vice versa) suggests a rupture in Agamben's the idea that moving image aesthetics can be said to be gestural in a philosophical sense. This raises the question of whether the openness of the body and the player's ability to imagine and augment the image virtually is in some sense confined or limited by the FPS. To answer this question, an analysis of the player's gestures themselves and the specificity of how the FPS's aesthetic influences them is required.

4.2 Stuck on the surface/invading the depths: alienation and immersion

Game Log 4.2

Call of Duty: Black Ops (2010) | Team Deathmatch | W.M.D | January 2012.

I can't stay still. Being still means waiting here in the open. I flick the frame left and right, directions lacking a sense of direction.

I turn left along a pathway between two buildings close to my spawn point in the south east of the map and align my crosshairs with my forward movement. Centred, I hope to cover all doorways to the right and left, but the horizon keeps expanding with every step forward. Everything is unfamiliar, dead ends, killing grounds are all one to me.

Sprinting, as if I'm following crosshairs I'll never catch, I notice a doorway to my right and make for the relative safety of a smaller space. I twitch left and right, trying to cover the room. It's empty. I make for the far corner and crouch facing the doorway and another entrance point to my left. I line up my target and wait for any sign of movement in the white pixels of the snowy exterior. No enemy. Some seconds, some gunshots – tick-tock, ratter-tat, distant. I stand and make for my initial spawn point. The shots get louder as the space opens, declining to my left.

I descend, sweaty finger poised on the fire button. Multiple trajectories offer themselves, each seeming to threaten with equal intensity. I head north into an open space, bearing slightly east,

pulled by the sparseness and scale. Dead bodies litter the snow-covered ground - inky doodles on a blank page. I have reached the centre or choke-point of the map. I plough forward. More possible routes open, branching to who knows where, each pulling me toward them with a kind of gravity. I fall through this open space taking in everything as I go, shifting the perspective here and there – aiming without targets, only fears, unknowns. I feed the multiplayer map into the centre of my point of view. I want to see everything. I am only dimly aware of the mini-map and other elements of the HUD. My attention is locked on the centre of the screen.

I pan and drag the perspective, and the space descends into a kaleidoscopic blur, uncertainty reigning over my actions. I spot an enemy player and line up the frame with the avatar in the centre of my crosshairs, pushing the trigger button. For this moment, the contingency of the image's movements and the unknowns of the unmapped space seem to narrow. Just as I fix my aim, I fix the unknown.

For much work on the FPS and videogames in general, immersion, identification and the sense of psychic and corporeal unity that these states imply between player and apparatus are stable facts of the player's tactile involvement in the game. Lev Manovich (2002: 235) has characterised new media in terms of the way that the user's movements are translated onto the screen in Lacanian terms as a narcissistic 'mirror' of human activity. This linkage between action and identification with the first-person perspective that also brackets much work on the FPS (See also Lahti 2003, Morris 2002, Galloway 2006). However, I would like to explore how the sense of immersion within the FPS – understood as a projection of the player into the game space – is, in fact, subject to a much more fluid, dynamic and politically motivated process.

Famously, Jean-Louis Baudry's (1974) article 'Ideological Effects of the Basic Cinematic Apparatus' approached the cinema as an architecture of different technologies working in concert to produce a form of identification in which the spectator comes to misrecognise the moving image as their own all-powerful and self-directed vision. In Baudry's model of the cinema, the spectator achieves a kind of transcendence of vision, during which time the psyche (with its visual bias in the form of the gaze) is cast into the cinematic space because of the medium's illusionistic power. Christian Metz went on to theorise this interception of the gaze of the spectator by the film as 'primary identification' with the camera lens itself, declaring 'I am the camera' (Metz 1982: 51). Apparatus theory conceptualised how the spectator not only

identified with the image but also came to be transcendentally projected into or immersed within an illusionistic representation of reality constructed by the cinema and its gaze.

For Baudry, this act of projection binds the image and the spectator in a situation where the spectator achieves the illusion of visual mastery '...a motionless and continual whole...a total vision which corresponds to the idealist conception of the fullness and homogeneity of "being"' (Baudry 1974: 42). Here, the god-like gaze that the spectator narcissistically adopts as their own represents a moment where the subject is in some sense completed and rescued from lack by the authoritative voice of the film. Thus, the production of a total vision corresponds to a totalisation and completion of the self by the apparatus that represented a blurring of the line between the ideological values of the cinema and the spectator.

However, simply adapting apparatus theory to videogames is a problematic endeavour because, as Baudry (1986: 313) later noted, the cinematic image induces an infantile stasis and passivity. It is worth reiterating here that psychoanalytic conceptions of the cinema as an essentially psychic apparatus that is productive of a physical passivity have been rendered obsolete as part of film theory's corporeal turn in the 1990s. The extent to which the spectator can be said to be still ignores the play of sensation across the surfaces of the body in what Laura Marks has called 'haptic cinema' (2000: 172), within the body's deeper structures and organs (see Barker 2009), and ignores the way vision is embodied (see Nöe 2006). However, in terms of actions such as the movements of the limbs, the cinema's spectator remains becalmed relative to the videogame player. If we are to understand how the FPS player comes to be immersed within the image and thus produces a situation in which the subject is projected into its environments, the passivity of the spectator and the dominance of the gaze needs to be reformulated in terms of the body and gestural activity.

Sue Morris (2002) has engaged in a mapping of apparatus theory against the FPS, and concluded that the connection between the player's corporeal action and on-screen movements are how identification with the first-person perspective is secured, via an adaptation of Metz's concept of primary identification (1982). Martti Lahti (2003) has argued that the feedback loop between manual and on-screen actions has been central to how videogames have sought to produce a

form of embodied presence within the game's world – what we might call, to borrow Baudry's phrasing, a homogeneity of being between game and player. For Lahti:

One of the characteristics of video games throughout their history has been an attempt, with the help of various technologies, to erase the boundary separating the player from the game world and play up tactile involvement. Indeed, much of the development of video games has been driven by a desire for a corporeal immersion with technology, a will to envelop the player in technology and the environment of the game space. That development has coincided with and been supported by developments in perspective and optical point-of-view structures of games, which have increasingly emphasised the axis of depth, luring the player into invading the world behind the computer screen. (2003: 158)

With the FPS, we should fully dispense with the idea of a transcendental identification with the camera and consider the way that the production of an alluring depth to the image and the perspective's capacity to mirror player gestures leads to a corporeal immersion with the game space. Lahti's identification of the Z-axis and the production of three-dimensional depth is a corollary to Baudry's argument that the cinematic image offers a space into which the psyche of the spectator can travel. Although separated by their conceptualisation of the psychological and tactile nature of the act of viewing and playing, both emphasise how aesthetic conventions productive of illusionistic depth function to ensnare the spectator or player within its reality. What we see in much work on the FPS is quite a close connection between identification with the image achieved by its ability to intercept and mirror player gestures and a form of corporeal immersion within the game world.

This connection between action, identification and immersion has been famously explored in Alexander Galloway's chapter 'Origins of the First-Person Shooter' (2006), which argues that the FPS's mobile perspective is a continuation and fulfilment of an aesthetic impulse to replicate the conditions of embodied vision in moving image culture. His argument progresses through a critical analysis of a series of cinematic examples of the first-person perspective – or the 'subjective shot' – which are read as a faulty and ultimately alienating attempt to replicate active embodied vision, which blocks the image's capacity to produce identification because it overtly signals a loss of corporeal agency for the spectator. For Galloway, the FPS addresses and corrects this issue, producing what he calls 'gamic vision' – a kind of technologically realised human vision predicated on the capacity for the player's actions to be mirrored on screen and

act unhindered by the cinematic construction of time and space achieved via editing (2006: 63). As in Morris and in Lahti's works noted above, corporeal action is implicitly equated with identification and identification enables the player to become corporeally immersed within the game space (Galloway 2006: 69). However, despite the obvious centrality of the first-person perspective to Galloway's argument, the concept of gamic vision and ideas that equate action with identification and identification with immersion threaten to obscure how the aesthetic conventions of the FPS's perspective influence the player's activity.

Laurie Taylor has suggested that the FPS's first-person perspective produces an 'acting on rather than within the screen' (2003). Taylor argues that the FPS image is the site of a psychological rupture created by the lack of an on-screen avatar upon which a reproduction of Lacan's (2006) mirror stage can play out. For Taylor, the lack of an avatar as the player's Lacanian mirror image effectively means that the player's capacity to identify with the game stops at what we might consider the lens of the HUD. Therefore, the player is prevented from identifying with, or being embodied within, the multiplayer map, cancelling the possibility of immersion. This suggests a fractured relation between player and game that also has the effect of cancelling attempts to read the FPS as an apparatus and form of political control. However, despite Taylor's somewhat puzzling conclusion that problematises a genre that has played such a central role in videogame culture since the release of Wolfenstein 3D on the PC in 1992, the idea that there might be a kind of surface or layering to the player's identification and a complication of its relationship with immersion appears to have some grounds in the FPS image. The question that I seek to address becomes one of how vision, action and ultimately identification and immersion are constituted by player gestures incited by the apparatus and mediate between the construction of a surface for player identification and the FPS's three-dimensional spaces.

4.2.1 The HUD: gamic skin

The player's HUD functions as an internal lens displaying information such as ammunition readouts, kill-confirmations, the crosshairs and mini-map — elements that can only be seen from the player's perspective, overlaid on the game's live or shared three-dimensional multiplayer maps. It is ever-present during normal play and forms a key part of the aesthetic of the genre. As Taylor has suggested, it seems clear that a transparent surface or lens is being alluded to that in some sense separates the player's gestural actions from the game's multiplayer maps.

However, rather than being a surface for 'acting on,' the HUD implies the production of an internal space between the screen physically located in the actual and the game's mathematically rendered three-dimensional world. Here, the perspective denoted by the HUD becomes a threshold or liminal site visualising the interface between the player's body and game, as Anne Friedberg has argued in more general terms in relation to the computer screen (2009: 5). Because it is seen only by the player and responds solely to their inputs, the HUD establishes a personal space of identification for the player. It is suggestive of an envelope into which the body of the player extends, demarcating the perspective as an interior but also as a limit for the reach of the player's corpus. Just as the player's body extends and immersion in the game space seems inevitable, the player's gestures seem to reach a limit-point. The HUD both enables this extension and decides its range.

Because of the HUD's aesthetic border-drawing, the multiplayer map or game space — characterised as threatening by Morris (2003) and Ash (2013) — takes shape as an exterior. Rather than being automatically immersed and fully embodied within this space as a 'game body' (Crick 2010: 262), the HUD sets up a relation of inside and outside. This production of gestural involvement and its limiting to the movement of the perspective generates a sense of unity between the player's body and this internal space of the image. However, unlike the unification of the player with the game's three-dimensional spaces suggested by the concept of immersion and the free and fluid gamic vision that this state enables, the external space appears subject to a form of othering. This binary relationship of internal body to otherness and external dangers brackets the player's sense of identification with insecurity. It also suggests the necessity for the inside to be protected in some way from the outside.

Rather than conceptualising the FPS's interface in terms of either a total immersion with the game's reality, or as a form of distanced and fractured engagement implied by the production of an adamantine surface upon which the player acts, a more profitable metaphor might be to understand the HUD as a permeable membrane — a gamic skin. The HUD covers and separates the player from the game's threatening multiplayer spaces with a transparent flesh, which remains strictly 'outside' in terms of the player's identification. As a barrier, it conforms to what Ed Cohen has called the aspiration of the modern body to 'localize human beings within an epidermal frontier that distinguishes the person from the world (2009: 7). For Cohen, the skin

denotes what is proper to the body and thus the foundation for the legal and political rights of the individual (2009: 7). If there is a gamic skin, then Cohen's point suggests that it also alludes to the political construction of the individual as a figure who owns their own body and is entitled to certain rights that must be defended. While the skin of the HUD certainly puts the idea of a boundary separating the player from the game space and its risks into play, it does so in a manner that undercuts this delineation in two ways. First, the whole nature of a gamic skin is the result of a transgression of the player's corpus by the FPS apparatus – it is, after all, a cyborgean interface. Second, the game seems to produce this bordered corpus simply to make it vulnerable to contamination and motivate its defence. For Thomas Elsaesser:

The skin is an organ, our largest, and yet we are incapable of observing it from an external position. Skin thus negotiates and re-distributes the relation between inside and outside; it designates a transitional and uncertain liminality with respect to where the self becomes the world and vice versa. (Elsaesser and Hagner 2010: 111)

The gamic skin also represents the liminal membrane through which the affective and tactile power of the game passes back into the player's body. It is vulnerable, demarcating the player's perception of their avatar, which is target for enemy attack. When an enemy fires, a visual representation of a ludic mechanism is not all that is generated because these aggressive contaminations of the HUD also carry an affective charge. Thinking of the HUD as an epidermis the apparatus constructs for the player also decouples the binary of surface and depth for the player's sense of identification and immersion. The gamic skin is both a barrier and a tactile interface that contacts the game space, signalling its exteriority but also its capacity to puncture the player's bodily interior. Melanie Swalwell has suggested that the novice videogame player 'must grow a 'thicker skin', developing and adjusting their perceptual abilities and responses so that they do not become lost or dizzy or disoriented by the fast-paced moving camera' (2008: 76). It seems clear that for the unhabituated player, the gamic skin is intensely vulnerable, anything but thick.

However, the skin is not simply a conduit for the outside to pass into the body, but is also a means to reach into and tactilely sense an external environment. I would like to argue that the mechanism allowing the player to reach into and become one with the game world is the action of aiming and firing. When undertaken by other players, this action also denotes the way the multiplayer map (the exterior) reaches into and contaminates the player's sense of self, or

interior, with affective shocks. The HUD is, therefore, neither a surface for acting on the game, nor a kind of neutral aesthetic artifice and conduit for an inevitable state of immersion. Rather, the HUD is a gamic skin, a two-way membrane that is the locus of sensory and sensual exchange between the player and the game.

The prospect arises that immersion is not a stable fact of the genre, but a goal for the player that must be actively pursued and gestured into being. I would like to argue that immersion is achieved when the player crosses into the game's multiplayer maps with the passage of a bullet. The idea that immersion is a goal tied up with a self-defensive desire to preserve an interior space of identification and tactile interchange produced by the HUD reinforces but also complicates the ludic imperative to explore and dominate the game's multiplayer maps in a game of *Battlefield's* Conquest or to do so with the sole objective of killing enemy players in *Call of Duty's* team deathmatch. This suggests that the identification—immersion model is not an automatic facet of the FPS's production of tactile involvement and visual depth, but something that must be achieved by the player's gestures. Here, the motivation of securing a ludic goal and a sense of existential insecurity enter a mutually supportive dynamic where both can be resolved when the player reaches into the game space via defensive action.

A key difference between the concept of a gamic skin and Galloway's idea of gamic vision, is that the process of immersion becomes contingent. The efficacy of the player's gestures bears on their capacity – not only to win points or kills for their team in a round of team deathmatch, but also on their sense of immersion and corporeal security within the game. Therefore, the twitching, frightened gestures of the unhabituated player are not simply evidence of a ludic lack, but a struggle to come to terms with the extension of the corpus and its tactile vulnerability that the game demands for a sense of immersion within its reality to be realised. But, how, then is this incitement towards immersion via the gesture of aiming and firing managed and organised by a game such as *Call of Duty: Black Ops* (2010)? And what can the manner of this management of gesture tell us about the wider cultural and political values of the FPS?

4.2.2 The gesture of centring: rationalisation, control and its absence

It is useless to draw the bow, unless you have a target to aim the arrow at (2004: 59)

Leon Batista Alberti, On Painting 1435—1436

Erwin Panofsky's work *Perspective as Symbolic Form* (1997) charts the development of regimes of calculated perspective in the renaissance as a specific outgrowth of changes in understandings of optics and space. In the mathematical construction of the central vanishing point and the appearance of spatial infinity (1997: 65) that renaissance perspective could achieve, Panofsky read a symbolic articulation of broader epistemological changes occurring in the fifteenth century in Europe. In short, Panofsky interprets the visual construction of the infinity of space as an expression of the emergence of ideas in the renaissance of an infinite experiential world and thus a claim to the real, as well as a challenge to previous, understandings of reality.

For Panofsky, this mode of perspectival construction represented 'an objectification of the subjective' (1997: 66). The author understands linear perspective in terms of its ability to translate the subjective world of representational forms into the appearance of an objective and infinite visual reality. Thus, if we apply Panofsky's insight to the FPS's perspective construction it appears as a product of the values of its time and a 'symbolic form' not a simple matter of replicating human (or gamic) vision, or producing an illusionistic spatial reality. Steven Poole has argued that the FPS should be aligned 'with the strain of Western art from the Renaissance up until the shock of photography, were hell-bent on refining their powers of illusionistic deception' (2000: 137–138) (see also Crick 2010: 261). For Panofsky:

The picture has become a mere "slice" of reality, to the extent and in the sense that *imagined* space now reaches out in all directions beyond *represented* space, that precisely the finiteness of the picture makes perceptible the infiniteness and continuity of the space. (1997: 61)

If there is a relationship between the symbolic form of the renaissance as understood by Panofsky and the FPS, it lies in a mutation of the image, rather than its homogeneity. In the FPS, the finiteness of the gamic skin and the player's place in the game is utterly enclosed by a fully

rendered threatening space. In the following pages, I would like to suggest that infinity is both made finite and threatening in the FPS, forcing the player to protect themselves and rationalise the image by centring on enemies, aiming and firing. I am not suggesting the FPS straightforwardly replicates the values of the renaissance. However, the desire to subject the image and the world to a mathematical rigour leveraging epistemological and philosophical changes or advancements can be understood as a recurring *topos* of Western culture, legible in developments in image forms as diverse as the scientific turn in cartography (see Harley 2001: 77) and the cinematograph's application as a device for capturing and mastering an index of the body (see Rabinbach 1990). If both the construction of three-dimensional environments and graphic elements of the HUD puts the values of single point perspectival construction into play and has a relation the painterly construction of three-dimensional space, it must be coordinated with its context, rather than chained to a narrative of historical descent.

It is noteworthy that a central building block of Baudry's argument discussed above is the way the spectator's transcendental identification with the image is facilitated by regimes of perspective and composition that have endured in Western culture since the renaissance (1974: 41). While Baudry's psychoanalytic model might have been challenged in Film Studies and cannot be applied uncritically to the FPS, he makes some interesting aesthetic observations. Importantly for our consideration of the FPS perspective, Baudry notes that the cinematic frame has a monocular point of view that 'elaborate(s) a centred space' (1974: 41). In film, photography and perspectival painting, objects are arranged within the frame according to its fixed borders around a central vanishing point arranged to coincide with eye level. For Baudry, this compositional convention feeds back into the corporeal and psychological positioning of the viewing subject, meaning the viewer is encouraged to orient their gaze and body towards the centre of the image and away from considerations of its artifice.



Figure 4.1: On first-person shooting. Screen grab from Call of Duty Black Ops (Activision, 2010)

Important to note here is the distinction that Jonathan Crary (1992) draws between classical forms of vision and those constituted by modernity. For Crary, where classical vision is predicated on a separation of subject and object, technologies such as the cinema articulate a moment when the spectator or 'observer' is repositioned 'outside of fixed relations of interior/exterior...and into an undemarcated terrain on which the distinction between internal sensation and external signs is irrevocably blurred' (1992: 24). This suggests a form of contamination between the image and the spectator wherein the stable subject—object relations of the renaissance is replaced wholesale by modernity's tendency to abstract and discipline vision and sensation into a modifiable and exploitable commodity. While Crary's analytical framework is historical and bodily rather than psychoanalytical, it shares Baudry's blurring of the lines separating spectator and image. However, Baudry's work connecting the centring visuality of the renaissance with the cinema suggests that we are never dealing with wholesale ruptures between cultures of image and spectatorship. Conventions like centring persist, even if the particularity of the way in which they are deployed, perceived and sensed may alter in different historical contexts.

Despite the total control that the game's code exerts over the FPS's multiplayer map, the fact that the in-game camera mirrors the player's gestures means that the importance of centring

appears diminished. The player does not simply project their gaze into the space where an interception of their vision by the apparatus is effected, but is involved in an intense corporeal exchange in which any entrance into the game space must be effected by a crossing of the skin of the HUD by the player's action of aiming and firing. This affective exchange and gestural quality to the movement of the perspective raises the question of how centring seen as the imposition of a compositional convention executed by an external authority can persist in this context. The answer here is that centring as a compositional regime determined by the author of an image mutates into the action of aiming and firing, which must be undertaken by the subject. Because of its relationship with immersion and the protection of the player's affectivity, the action of aiming and firing — whether expressed by gestural ticks or more authoritative play — dominates all movements of the FPS perspective by the necessity to centre it on threatening elements.

Michael Kubovy has noted of Italian Renaissance painting that 'The most obvious function of perspective was to rationalize the representation of space' (1986: 1). Here, the image is composed by set mathematical conventions, ensuring that the illusion of depth on a flat surface is achieved. This calculation flows from the perspective of the painter (and later the viewer) and the space and proportions of objects are organised accordingly. This need to calculate and mathematically produce the image is what Alberti meant when he made his fifteenth century appeal to painters to calculate and rationalise perspective in their images or be rendered like an archer who has drawn his bow, without identifying a target (2004: 59). However, it might also be said that the painter who uses the techniques described by Alberti has made the construction and rationalisation of space his or her target, which is a gesture of control of the 'violence inherent in every model...to the transformation of real space into a figure ruled by laws of reason and abstraction' (Jacob 2006: 23). The archer also attempts to take hold of and control his target. Both the aim of the painter and that of the archer are legible as acts of violence because they exert a power over the real: controlling and rationalising its openness or life.

In the FPS, the illusion of depth is maintained regardless of changes in the player's perspective because the space has been fully calculated and constructed to be viewed from all possible angles. This means that the player is unable to compose, rationalise, or exert an enduring authority over the space. This lack of control over the composition of the space, combined with

the ability to engage in gestures of centring via movements of the gamic skin mean that the player must behave like the upbraided archer in Alberti's metaphor by always having his or her bow drawn, seeking to align the HUD in such a way that they are prepared to aim and fire, to bring the image into a state where its object is centred and rationalised. The act of aiming and firing not only removes threatening and unpredictable enemy players from the game for a duration but does so when the player gestures a centred image into being as they open fire. Indeed, the movement of the FPS perspective appears an attempt by the player to control the game's spatial and temporal contingencies and their affective power. Here, firing and rationalising are combined in a gesture aimed at controlling the threatening potential of a multiplayer match, acting to secure the player's space of identification or skin-like HUD from shocking invasions from the game's maps. This suggests that the key to understanding the persisting nature and significance of the relationship between renaissance regimes of centring and the FPS's HUD, lies in the dynamic and mobile relationship between the player's gamic skin and the three-dimensional multiplayer map.

4.2.3 Crosshair as net

From id's *Wolfenstein 3D* (1992) to *Call of Duty: Black Ops III* (2016), the FPS's HUD forms a relationship with the avatar's arms and weapon that projects from the centre or centre-right of the lower border of the image towards its centre. The avatar's arms and weapon are not a two-dimensional information readout like the registration of ammunition levels and the mini-map. Rather, this is a partial three-dimensional representation of the avatar's body that travels into space along an orthogonal line (in the case of contemporary shooters like *Call of Duty* and *EA's Battlefield*) tapering to a point. In this way, the avatar's arms and weapon construct one side of a visual pyramid made up of projecting orthogonal lines and horizontals called transversals. This triangle made up of the orthogonal line of the avatar's arm and weapon converges with the crosshair fixed at the centre of the frame.

To recall my experiment with Panofsky's iconological method (1972) in the previous chapter, the bare appearance of the crosshair in both the *Battlefield* and *Call of Duty* FPS franchises takes shape as four lines placed at right angles to each other, arranged in a cross that does not intersect. This incomplete cross is situated in the centre of the screen space. As a graphical element, it alludes to both the reticule of a camera lens and the sights of a weapon and thus

both the act of centring or framing an image and firing a projectile. The fact that the player's weapon is visible in the same screen space as the crosshairs creates both a visual disjunction wherein the aim of the gun and the crosshairs of the HUD are separated and a compositional movement or trajectory in which the eye is invited to travel in a line from the barrel of the gun to the centre of the screen. Poole has noted this disjunction between the foreshortened image of the avatar's arms and weapon and the trajectory of the player's aim, and suggested that the way that the barrel of the gun projects into the game space is 'a clever effort cross the barrier between onscreen action and the player's physical situation' (2000: 126–127; see also Lahti 2003: 160). However, my analysis thus far has suggested that the immersion of the player into the game space rests on the far more contingent gesture of aiming and firing. Immersion as a matter of a simple visual trick *sans* action ignores the importance of the player's activity in this process.



Figure 4.2: Crosshairs, reticule, net. Screen Grab from *Call of Duty: Black Ops III*, (Activision 2015)

I would like to suggest that the line created by the positioning of the avatar's arms and the crosshair tells the player that when they aim their in-game weapon, the gun's sight will line up with the centre of the HUD. In this way, there is a compositional presaging of the unification of the skin-like surface of the player's tactile site of identification and the sights of the avatar's weapon that is affixed to the HUD and projects into the game space. A fusing of gamic skin and

the three-dimensional exterior occurs when the player aims their weapon. Taking aim, the player is on the cusp of immersion and only needs to pull the trigger. Indeed, rather than producing the player's presence in the multiplayer map, the trajectory of this visual device implicitly alludes to and even forecasts or incites the action of aiming and firing in which these elements and the player's body are unified with the game space.

The central position of the crosshair becomes legible as a mutation of the convention of the vanishing point put into play by the HUD through which the game's multiplayer map is seen and acted upon. For Bryce and Rutter, the 'FPS differed from previous games by providing the gamer with a vanishing point perspective of the playing environment, directly mediated by player input' (2002: 8). In the perspectival construction of the renaissance, the vanishing point often coincided with the image's central actor, as noted by Kubovy (1986: 5) perhaps most famously in Da Vinci's fresco *The Last Supper*. In effect, here the production of an infinite space is a convention that projects and then captures vision that takes flight only to alight on its subject, one of infinite and divine authority. However, despite the construction of a perspectival vanishing point, because the multiplayer map is fully rendered and the perspective mobile, there is a kind of absence in the centre of the image. The vanishing point as a stable and calculated fixed graphical element quite literally vanishes and so too does the image as an authoritative gesture of rationalisation.

In this way, the gamic skin of the HUD and its crosshairs seem to establish the convention of centring while foreclosing its completion. Importantly given the fact that the HUD acts as the player's tactile point of affective exchange with the game's three-dimensional spaces, the absence of a compositional centre begins to bear on the player's gestures that must be put to work to compensate for this lack. The player doesn't need a degree in art history to understand the essential void at the centre of the image and the risk to the gamic skin that this absence communicates. To repair this lack and assuage their insecurity, the player must find something to centre the crosshairs upon, in a sense, mapping, rationalising and controlling the game's spaces and possibilities – quite literally aiming her 'bow' to control the space and ultimately gain an authority over the affective vulnerability of their body. It is noteworthy, therefore, that another word for crosshairs is reticule, which derives from the Latin word for 'net.' The crosshairs, like a net, represent an extension of the body that captures and secures that which is

beyond its reach. When the player successfully aims at an enemy by aligning it with the crosshairs and firing, the skin of the HUD could be said to ensnare the other in the player's bodily reach for the purposes of in some sense consuming it.

Taken in sum, the gesture of aiming and firing generates an aesthetic and corporeal unity as the player's corpus is secured and the visual pyramid and vanishing point is compositionally completed. The HUD appears to operate in a dynamic of remediation with renaissance (and cinematic – see Baudry above) perspectival construction where the power of the image as a force for the authoritative organisation and mathematisation of space is alluded to but left in a state of incompletion that the player must resolve to secure themselves.

However, my game log suggests that the novice player is implicated in an aesthetic and gestural crisis where they struggle to secure their sense of corporeal presence and rationalise the image by aiming in an efficacious manner. What we see with the novice player are provisional, interrupted and fractured acts of aiming defined by a lack of understanding of the game's contingencies and a deficit of motor function that feeds back into the player's body as an almost overwhelming sense of corporeal disorientation and insecurity. In this situation, there is a mutation of conventions of centring that can be traced back to the renaissance, but here this convention and the act of rationalisation and control that it implies are always mobile and in a state of continual flux and uncertainty. The particularity of the game's fixed aesthetic elements in the form of the HUD, and specifically the crosshairs, provide a means of interpreting how actions such as the chaotic and twitching movement of the FPS perspective noted in my game log are induced as a failed attempt at sense-making and securing the player's site of corporeal exchange with the game.

4.2.4 Gestural Immersion

However, aiming or centring the perspective is not simply a means of rationalising and controlling the game's spaces and their threatening possibilities, it is also a gesture that carries the player at the speed and ephemerality of a gunshot into the multiplayer map. This achieves an invasion or immersion within the space taken as a stable fact of the interactivity of the genre by theorists such as Galloway and Lahti. In the *Call of Duty* franchise, bullet physics are not modelled in the sense that a simulated bullet is rendered and projected into the game space as

they are in EA's *Battlefield* games. Rather, the centre of the crosshair is mapped onto the exact location it overlays at the speed of light in a process called 'hit scanning'. There is the establishment of a momentary connection where the player's gamic skin reaches instantaneously onto the exterior of the multiplayer map.

What this extension of the player's skin into the game space suggests is that immersion needs to be considered – not as an inevitable fact of our engagement with the FPS, but as a state that is only achieved when we aim and open fire, as we take control of, or map, the space at the expense of enemy players. The common ground that unites ideas of psychoanalytical cinematic identification and corporeal videogame immersion is the production of a unified sense of being for the player or spectator as an automatic output of the apparatus. What we see if we reconceptualise immersion as an aggressive-defensive action of aiming and firing is that achievement of a sense of corporeal unity and security must be actively pursued by the player and comes specifically at the cost of immersion for the enemy who is shot. This is suggestive of a situation where the apparatus can take control of the player's gestures and corporeal constitution specifically by inciting actions that simultaneously protect the player's affective and sensitive skin and militate against the other.

If we approach this incitement to aim and fire with its high stakes for the player's tactile presence in the game as a form of subjectification, we are not dealing with an apparatus that operates via the direct imposition of authority, like Foucault's panopticon (1991). Rather, this form of gestural bodily conduct is generated by the incitement of the desire for self-protection that the game has produced by making the player's identification with the image insecure and vulnerable to affective shocks. In this way, the player's gestures are mapped by the game only indirectly, as they take shape as self-protective and self-interested actions. The mechanics of the game and the way in which the player reacts to them are therefore defined by the production of a context of all-pervading precarity, a hallmark of neoliberal systems of governmentality (see Foucault 2008: 66 and Lazzarato 2009: 119–120). However, a simple mapping against neoliberalism is insufficient to grasp the nuance of the tension between the interior and the exterior that I believe defines each of these states: player vs enemy, chaos vs composition, immersion vs fracture.

4.2.5 The first negation of the immune image

Given the production of precarity as an affective motivation for a constitution and securing of the player, and the desire of this thesis to approach the FPS as an apparatus in the Foucauldian sense, the current analysis suggests an alignment with broader political techniques that also operate in this manner. Described above is a dynamic congress of internality and externality that is a reaction to a body put under threat. Donna Haraway has claimed that 'the immune system is a map drawn to guide the recognition and misrecognition of the self and the other in the dialectics of Western biopolitics' (2001: 277). In other words, immunity as an interpretive category operates to define interiority and exteriority, self and otherness, which determines the tenor of the body's interaction with its environment.

The movement of the gamic skin and the act of aiming is not the execution of an explicit diktat, but self-defensive reaction that secures the interior space of the player's body against the external threat of the other posed by the FPS's multiplayer map and its denizens. Because of this ultimately selfish motivation, this incitement of player's gestures cannot be aligned with a traditional structuralist critique of power (see Althusser 1971), just as it represents a poor fit with psychoanalytic models of spectatorship. What we see instead is an image that captures the body by demanding self-defensive action. In this way, my reading of the FPS resonates with the way Roberto Esposito (2008, 2010, 2011) understands the immunitary process as a mode of self-protection that operates by seeking to control the contamination of the individual by neutralising threats that encroach from the margins of its body.

For Esposito: 'Evil must be thwarted, but not by keeping it at a distance from one's borders; rather it is included inside them' (Esposito 2011: 8). The protection afforded by the internal corporeal sphere of the immune system is framed as the negation of external threats via their inclusion within the interior that is being threatened. In absorbing the threat, the immune system operates by reacting against but also embracing that which threatens it, producing the literal incorporation and neutralisation of danger. For example, in cases of bio-medically induced immunity, pathogens are intentionally introduced into the body so that the organism obtains future immunity in the form of the production of antibodies that can be mobilised preventing re-infection for its lifecycle. This intentionally induced inclusive exclusion makes the immune

reaction both the enemy of 'evil' and its host. It is this process as a form of deliberately induced defensive action that I believe the FPS can be productively aligned with.

This first capacity to effectively protect against contamination by the other that has allowed W. J. T. Mitchell (2010) to propose the immune system as a useful model for national security apparatuses in the sense that the accurate identification and neutralisation of internal pathogens is preferable to the indiscriminate approach to issues of security, such as those suggested by the U. S's wars on drugs and terror. For Mitchell, the process of immunisation entails addressing potential threats such as international terrorism and migration by relocating these threats away from the language of war, and repositioning them within the biomedical lexicon and the body of the nation, with its biopolitical associations as 'public health' crises (2010: 53).

For Mitchell, immunity as a process of threat negation that can become harmful to the 'host' organism is defined by its faulty execution in the recent history, especially regarding the War on Terror. In other words, the problem is not the immunitary operation of contemporary Western biopolitics itself, but rather a lack of targeted immunitary defense. Mitchell's interpretation and application of the immune metaphor are evidence of what Timothy Campbell (2011) has called 'affirmative biopolitics', which seeks to contextualise the positive aspects of the governance of the population, against its thanatopolitical or deathly drift.

The FPS player's gestures of aiming are induced by the game via the intentional introduction of threats on different levels – in terms of ludus (winning and losing), affect (shock and protection) and aesthetics (chaos and control). By permitting action via the movement of the perspective or gamic skin, which captures threats within the image's interior, and offering the means to eliminate them through a process of visual inclusion, the threatening nature of the contingent spaces and, ultimately, enemy players can be controlled. Here, centring the frame, bringing elements of the game into the crosshairs and firing produces both an image and a corporeal gesture of exclusion through inclusion and thwarts 'evil' via an immune reaction. Crucially, the establishment of a skin-like interior and a threatening exterior in the form of the three-dimensional multiplayer map is only revealed as a mechanism of self-defense when the player is given gestural control over the perspective and can neutralise the threat of the exterior by

framing these threats as part of its visual interior and gamic skin. It is at this moment, too, that the player's site of tactile involvement and in-game skin extends and is immersed in the game's spaces.

However, where centring the perspective and enacting the process of immersion and inclusion allows the player to claim the multiplayer map as their individual territory and area of authority, this gestural immune reaction is only a temporary cure. The actions of enemy players cannot be determined or ordered by the player in situations where they have not been able to cultivate the skills and knowledge that come with habitual play (see Ash 2013). Therefore, any successful act of aiming is an immunitary gesture that exerts a control over the game's threatening contingencies by interiorising and neutralising them that is fleeting at best. At any moment, an enemy player can enter the frame from the fully rendered actionable space at its borders and set off another immune reaction. In this way, the capacity for the player to negate the threats to their gamic skin that are put into play by the game is never complete, suggesting that the player as an individual is never free from insecurity. This requirement to continually immunise the self from the game takes shape as an embodied behavior – twitching, aiming, firing - and as a kaleidoscopic screened image.

4.3 Beyond the skin

There is something missing in the above analysis, which needs to incorporate that which is absent from the reach of the player's gamic skin while being in some sense present. Here, I consider how the gesture of aiming that seems to define the FPS image and the player's bodily activity by its centre exists as part of a system of player manipulation that also encroaches from the borders of the screen. Therefore, the player's gestures are driven by more than our reaction to what we can capture via the game's perspective or skin and the immunitary negation that I perceive as operating in this situation. This is because player's gestures have another driving factor in the FPS that is in some sense invisible in the form of the frame and its counterpart: the out-of-field.

Mark J. P. Wolf has suggested that with the rendering of three-dimensional environments, the action in the out-of-field becomes as important as that visible on screen (1997: 20). Lahti has also emphasised the importance of the out-of-field in the FPS, noting that 'a player of such

games needs to be ever-conscious of the fact that her nemesis could reside just outside the visible field, ready and waiting to destroy her' (2003: 159). In each case, there is a tension created between the dangerous possibilities of the three-dimensional environment and the visible field, which has been revealed as essentially limited and vulnerable.

It is worth noting, therefore, that Gilles Deleuze states in *Cinema 1* that 'framing is limitation' (2005: 14). When Deleuze conceptualises the frame as a limitation, he suggests that vision has been demarcated and standardised ensuring, the act of framing is a gesture of reduction regardless of the movement of content within the frame, or movements by it in the form of pans or tracking shots. The persistence of the frame in the FPS means that if there is a gamic skin as I have suggested, it exists firmly within the tension created by the player's ability to move the perspective and the limitations and augmentations that the game imposes on these actions by making them perceptible only via the frame itself.

Deleuze (2005: 13) conceptualises the frame as a closed information system. It is a discrete 'data set' of reality, a kind of lock that he both conceptually constructs and gives himself the task of picking using his philosophical toolset of the actual and the virtual. Conceived by the author as an 'information system', the frame takes shape as a set of data populated by further subsets that manifest and behave depending on the chosen mode of visual composition. For Deleuze, the arrangement and movement of objects or subsets within the frame determines its capacity to open virtual spaces, or produce a contemplative relation to time. In either case, the visible field, though fixed and limited, is made plastic and mobile because it always implies a virtual element that exceeds the visible content projected onto the screen. This indeterminate quality is what leads Agamben to draw a connection between cinema and gesture as pure means (2007: 154). So far, I have conceptualised the FPS as gestural in the sense that it articulates a form of immune reaction relatable to the bodily crisis mapped by Väliaho in relation to early cinema. Relocated to the axis of Agamben and Deleuze, the issue of the gesturality takes a less literal turn. The question of the gesturality of the FPS is broadened to take account of whether it can open to the virtual and escape or exceed its fixed content.

Deleuze engages in a cartography of terms relating to the production and organisation of the frame's 'data' – be it concerned with density (saturation and rarefaction), geometry or

physicality. These distinctions belong squarely in the filmmaker's province as 'the art of choosing the parts' (Deleuze 2005: 14). No such categorising approach can be applied to the FPS because its multiplayer maps are pre-coded mathematical spaces, leaving complex issues of compositional style that leave the organisation of space redundant beyond the player's incitement to interiorise enemies in the centre of the HUD. The player's powers of compositional control are limited by what Brian Massumi (2002: 137) has called the 'possibilistic' nature of the digital. Conversely, the construction of an overarching possibilistic and mathematical space is also precisely what enables the potentially chaotic (though never random) encounters with other players. Far from producing a fixed relationship between the player and the image, the mathematisation and visual rendering of the game space is the predicate for the reproduction of insecurity and seemingly irrational behaviour.

Game log 4.3

Call of Duty: Black Ops (2010) | Team Deathmatch | 'W. M. D' | January 2012.

I released the shoulder button and my aim down a long corridor and turned my view to face a doorway of threats to the left of the frame. I centred the crosshairs in some sense shooting the open ground beyond. There were windows, doors, multiple pathways – too many. I aimed down the sights at each of these locations, limiting threats for a few beats, leaving others behind. I held and released the left shoulder button and tapped the analogue stick, making my view twitch from doorway to window and sweep across the open ground. It swerved, locking on to an enemy and I hit the fire button following its insectile walk with my crosshairs. Popping sounds tell me I have hit my mark and one hundred points flash up in the centre of the frame.

After this stream of action, the possibility of my first firing position started to take hold, flooding into my hands as possible gestures, making its presence felt by its absence. When I was a younger I slept facing the wall, sometimes staring at the textured wallpaper as if I could see there the shape of the heart of the shadow at my back.

I waved this survey of the open ground away with a flick of the left stick to dispel the limitation with another crouch and zoom towards the light of that first doorway down the long draw of the warehouse. But something was moving there now, interrupting the uniform block of light. Bright pixels turned dark, revealing a form I could only see long enough *to see*. The frame flinched with

the impacts of the first bullets and I pressed the right stick, fighting to compose the enemy at the centre of my frame, my crosshairs. The bullets seemed to impact the screen. I gripped the pad hard, making the plastic creak and manage a shot of my own with a tap of the right shoulder button before the frame was sprayed with red and my avatar, now unmoored, fell forward as if the glue that held it to the HUD and connected it to my body had vaporised.

A twitching gestural image plagued by the frame's *hors champ* or out-of-field is articulated in the game log above. Thomas Sipos has characterised horror's off-screen spaces as a place 'where threats can hide' (2010: 79). However, Hans Belting's idea that all images are animated by the imagination of the viewer – either virtually or anthropologically, in his terms (2011). They are in this way, not fixed, but gestural, always exceeding the sum of their bare physical presence (Agamben 2007: 153). This reading lends the out-of-field an ethical dimension as a space where the viewer, spectator or player can process and resist the fixed elements of the image. It is how this aspect is modulated by the threatening nature of the out-of-field – the multiplayer map where enemies lurk – and its relationship to the gestures of the player that I would like to consider here.

Deleuze argued that 'the out-of-field refers to what is neither seen nor understood, but is nevertheless perfectly present' (2005: 17). This means that the virtual processes of the cinematic frame always exist outside of its borders and are central to its ability to escape limitation as a closed information system. Here, the image is no longer fixed by its representational content, but is mobile. The notion of mobility is not limited to the fact that the cinema produces the illusion of movement, but is endowed by the way the frame obtains a kind of virtual plasticity when it is animated by the spectator's imagination. In this, the frame's virtual aspect is positioned as the key to its relationality – its ability to travel and connect with the other 'datasets' that make up reality.

This virtual, invisible and unreachable phantom is understood as evidence of the way the complexity of the cinema is revealed by an application of Deleuze's wider conceptual rubric, one that broadly seeks to emphasise the mobility of forms and destabilise empirical givens and common-sense assumptions by understanding reality as a product of an interchange between the virtual and the actual (see Deleuze 2004). A simple cinematic example of this process can be

found in the way that characters and objects can transgress the interiority of the frame without the spectator assuming they have ceased to exist or fallen into an abyss. Similarly, the frame can move beyond these objects if the camera pans or tracks through space without these spaces disappearing from the spectator's imagined cinematic cartography. When editing does not cut to map the progress of on-screen action, the spectator creates ephemeral virtual out-of-field realities for these objects and bodies to inhabit. However, these virtual and ghostly objects are not consciously mapped by the spectator. This would place a demand on their attention that threatened immersion with the film and its narrative. The out-of-field is constructed in an unconscious process of passive synthesis that marks the spectator's habituation in coordinating the virtual space of the frame with its actualisation. Each frame, even when we watch a film again, is always a new frame (always different, in Deleuze's terms) because it is produced by a synthesis of its prior repetitions and the specificity of their conditions of actualisation (see also Williams 2003).

However, the virtual operation of the out-of-field is altered by the FPS as a fundamental trait of its construction of space. In the FPS, the out-of-field of the game's multiplayer map is rendered in real time, represented and actualised to create three-dimensional spaces in which player actions occur. In a game of Call of Duty's team deathmatch the multiplayer map and the actions of the other players are being processed live, server lag permitting. Because of this spatial and temporal continuity and the capacity for player action that it enables, the unseen and unknowable presence of the out-of-field that lurks beyond the gamic skin becomes available for inclusion via the activity of the player's gestures. In this situation, mobile virtual ghosts of the cinema solidify as the player moves the frame and the colours of each pixel are calculated and mapped onto the screen, including them within the gamic skin, within its reach. When the player's bodily interior and perspective move, there is not simply the generation of virtual imaginings but a revealing of the game's fully rendered multiplayer map and the actions of other players. Since the unhabituated player lacks what we might call a functioning mental or cognitive map (see Massumi 2002: 179) of the game's space and is unprepared to predict the movements of enemy players, the out-of-field is characterised not only as a place where threats lurk outside of the player's tactile reach, but also where these threats are both potentially present and absent. Unknown hazards are always on the threshold of breaking into the interior of the player's frame, invading the gamic skin, amplifying insecurity.

The calcification of this calculated off-screen space means that the importance of the unseen and unknown as a driver for the FPS player's gestures is greatly increased vis-à-vis the cinema. The out-of-field stops being virtual and becomes concrete — a fully rendered and mathematically rationalised 'map' that encloses all possible spaces and actions that fully surround the player's gamic skin, leaving it vulnerable to unpredictable attack and the surges of stimulation that come along with them (see also Lahti 2003: 159). Deleuze's (2005:24) conception of the 'closed' frame's emancipatory relation to openness is therefore complicated and undermined, and the FPS frame appears almost totally encased by the multiplayer map as a kind of fully determined stand-in for the virtual: an unseen exterior presence. If we return to Agamben's (2007) idea that the cinema's virtual aspect makes it akin to the indeterminate nature of gesture then the irony for the FPS is that the player's ability to move the frame through gesture is only realised by an apparent negation of the frame's virtual or gestural character.

It does not quite follow, though, that the presence of a fully rendered cartographic out-of-field cancels the capacity to produce its virtual counterpart. Rather, I would like to suggest that the product of the cartographic out-of-field's threatening potential is an exponential increase in the creation of virtual spaces and threats within the imagination of the player. This intensification of the unseen is also an intensification of the sensation of insecurity that can be put to work in explaining the nervous and spasmodic gestural movement of the frame as it produces a desire to include the imagined and mapped data beyond its margins. In this situation, the player is forced into a position of vulnerability where they must gesturally speculate upon and mentally construct potential spaces and activity outside of the frame.

However, the unhabituated player does not have the spatial knowledge (what Ash (2013) calls 'analytical attunements') to channel the virtual out-of-field into actualisations that condense into authoritative gestures that internalise and neutralise like an immune reaction. The interchange between virtual and cartographic out-of-field spaces produces an intense cycle where imagined spaces and their possible threats must be tested and actualised, but where this actualisation is never sufficient to provide a sense of security because of the limited nature of the frame in contrast to the game's multiplayer map. This incites a nervousness where the potential for the player to be shocked and taken by surprise lurks at the margins of the frame

and augments the power of the first immunitary negation, inviting twitches, reflexes and convulsions of the players' body in the actual and of their gamic skin. The dual affective poles of the margin and the centre of the HUD puts the player and the image into a state of crisis where every gesture that attempts to include the threats lurking outside of the frame within the immune system of the interior of the player's body inevitably reproduces these dangers. What starts out as an attempt at obtaining a security from the game's potential to shock the corpus ends up intensifying this threat, generating a feedback loop that relegates other gestures and possible actions. Although the FPS can be considered through a ludic lens as fundamentally being about shooting and thus destroying enemies who are clearly intended to be threats, my thinking here is focused on the FPS interface itself as the primary threat.



Figure 4.3: Taken by surprise. Screen grab from Call of Duty: Black Ops (Activision, 2010)

If we take the shooting of enemy players as a more concrete example, the act of successful internalisation of the multiplayer map within the gamic skin leads directly to its undoing as the object that is centred and consumed by the orifice of the crosshair is destroyed. Even the apparently authoritative action of successfully aiming and firing is characterised by the fact that each successful act of inclusion causes its object (the enemy player) to literally vanish. The act of centring as a gesture of the negation of the danger posed by an external other both empties the player's corpus of its object and draws the player's attention to the frame's borders where

threats regenerate at the speed of their negation. In turn, this problematisation of image and player can only be corrected by seeking out new threats to centre by imagining and then acting on the out-of-field. This means that the fulfilment of the player's insecure need for aesthetic and corporeal security is the mechanism through which the vulnerability of the player is continually reproduced. Here, the player's gesturing of the game's primary aiming mechanics and the influence of the out-of-field take shape not simply as ludic actions aimed at increasing the player's individual or team score, but as a compulsive cycle in which the player attempts to achieve a sense of security with respect to the game's chaotic, fully rendered, actionable environments that ends up exacerbating the feeling of insecurity.

4.3.1 The double negation of the novice player

This self-defeating mode of self-protection brings us back to a consideration of Esposito's (2011: 16) concept of immunity as an interpretive category, and principally its limit-point in the concept of 'double negation' of the individual. The issue that Esposito identifies with immunity's role as a designator of inside and outside as well as being a mechanism that excludes the outside by including it within its defenses is that this process has an inherently destructive by-product. The inclusive nature of this form of self-defense allows threat to linger in its system in the same manner that our biological immune systems prevents re-infection by preserving a kind of memory-bank of every disease we have ever contracted inside our bodies. Here, the threatened individual being ends up being coded and constituted by a form of reversal that places the hazard it is attempting to destroy at its centre both in terms of this threat's place in the interior of the corpus and in the more metaphorical sense that it becomes the linchpin of the organism's behaviour.

For Esposito, the inclusionary exclusion creates a rhythm of flux in the dialectic between inside and outside that undermines the distinction between the individual and that which threatens it. Ironically, this self-protective mechanism places a question mark on the whole notion of a stable and unified self, be it a nation state or a body. The end-point of this fluctuation between the interior and the exterior caused by a compulsive desire for protection is that the corpus acquires threats and the shadow of death in small but corrosive doses that run in its blood. In this way, biopolitical immunity patterns the body that it seeks to protect in the very image of what

threatens it. For Esposito:

this self-protective syndrome ends up relegating all other interests to the background including "interest" itself as a form of life in common; the effect it creates is actually the opposite of what is desired. Instead of adapting the protection to the actual level of risk, it tends to adapt the perception of risk to the growing need for protection – making protection itself one of the major risks. (2011: 16)

Esposito describes a form of auto-immunity above in which the individual body (be it state or human) compulsively includes and devours the external other in the name of self-protection. Immunity's tendency to categorise according to inside and outside renders all interactions of the bordered system as threat responses. Actions are reconceptualised as reactions. During including and neutralising danger, the individual becomes a kind of self-induced biological automaton determined by its defensive reflexes. Here, the systems that protect the individual subject lead directly to a form of desubjectification when pushed to their logical extreme. However, a further consequence of this process is that new frontiers of risk are continually being opened up, perpetuating the process of desubjectification. As soon as a threat is included and neutralised within the interior, the borders of this system meet a new exterior against which it must define itself. Thus, the immune system produces more threats by the very operation through which it attempts to nullify them. For Esposito, it is this secondary increase of threat both internally to the behaviour of the individual, and externally in the production of the other that produces immunity's desubjectifying and self-defeating double negation.

Immunity's nature in supplanting actions with reactions means that power operates through provocation by concretising and reinforcing dialectics of inside and outside, us and them, safety and danger. This necessitates a radical change in the operation of immunitary apparatuses that must function via incitements and provocations, breaking from the training of the body via disciplinary regimes (see Foucault: 1991). Immunitary *dispositifs* do not transparently discipline and subjectify the individual, rather they incite an immune behaviour that must be gestured into reality by the subject as a self-protective reaction.

I opened my introduction by noting that the FPS image must provoke the player to act for the game to occur as an event. Esposito's conceptualisation of contemporary biopolitics reframes the FPS as an immunitary *dispositif* that governs the player by inciting them to desubjectify and govern themselves, ironically by attempting to protect themselves. This self-protective

syndrome is both a form of visuality and a suite of bodily gestures shaped as a reaction to the game's manipulation of the player's body and conditions of perception that has consequences that extend beyond the context of playing. The player's reactions take shape as a form of indirect governance by the apparatus, which ends up both affirming and cancelling the individual subject's authority over their body – the very thing the player is attempting to protect.

4.3.2 Immune image

I have shown that the novice player's actions can be read as reactions tightly governed by an allusion to the aesthetic values of renaissance perspective and the cinematic frame that is constantly put in a state of imbalance that has an affective charge of bodily insecurity that the player must repair. In an aesthetic sense, the player acts out the rationalising values of visual cultures in a manner that can never reach a state of fulfilment. Regimes of perspective and centring that have persisted since the renaissance are always incomplete, even at the very moment that they appear to solidify. The gestural and virtual nature of the cinematic image, conversely, is always present and actualised, transitioning from a mental process to a bodily activity, a reflex action to the threats to the player's capacity to secure themselves in relation to the uncertainties of the game posed by its three-dimensional environment.

In addition, the aesthetic issues discussed above are layered with processes of corporeal identification. This means the player's relationship with the space of the multiplayer map becomes aligned with much more fundamental issues relating to the security of the player's body and status as an existentially whole individual. However, my reading of the movement of the gamic skin suggests this process of mastering the other and securing the self are constantly alluded to, actualised and then negated. The player's attempts to secure their gamic skin are rendered momentary victories at best. A cycle of alienation and immersion, of insecurity and security, of mapping and the emergence of new frontiers establishes a compulsive rhythm explaining how players are encouraged to hunt, internalise and neutralise the game's unknowns. Only through consuming the exterior of the game's spaces can the player secure themselves. The unhabituated player is constantly kept off balance in a reactive state where the stakes of controlling the space become commensurate with securing their bodily interior. The automation suggested by viewing the player's reactions through an immunitary lens via the

internalisation and exclusion of the game's threatening spaces and agents can be put to work in explaining why novice players persist in playing the game, even when their gestures are so often fractured, nervous and ultimately fail.

If we consider the distinction between gesture and image proposed by Agamben, where gesture is always open and plastic, and the image is something fixed, then we can see how the FPS takes command of gestures and masters the player in such a way as they become an image. The form of this colonisation of gesture by the image is revealed as a compulsive and aggressive-defensive action — the double negation that is the hallmark of Esposito's concept of immunity. In this way, I conceptualise the novice player's gestures as reactions to the incitements of a desubjectifying apparatus, which produces the player not as an individual subject but as an immune image. Here, our 'play' chimes with the 'hardness' of play identified by Graeme Kirkpatrick as 'cynical, corrosive to the meanings that connect human beings to one another' (Kirkpatrick 2011: 26–27). The double negation of the inclusionary exclusion that is driven by our desire to assert our individuality at the expense of others not only reflects the concept of immunity noted above, but also actively trains bodies into a self-protective and predictable behaviourally fixed 'image' defined by aggressive attempts to cement the borders separating us and them. But at the same moment, this very attempt causes a flux in the individual that renders them available to power and thus reproduces the very threat that the body attempted to defended itself against.

4.3.4 Vaccination

The question that the desubjectification of the novice FPS player and their construction as an immune image raises is exactly what sense this seemingly degenerative process makes from the perspective of neoliberal governmentality. In other words, why does the *dispositif* of the FPS incite the player to become an immune image? In *A Body Worth Defending*, Ed Cohen produces a history of vaccination from its origins as a means of preventing infection by smallpox via the deliberate introduction into the human body of the cowpox virus by Edward Jenner in the eighteenth century. Cohen charts how the birth of vaccination and the defeat of smallpox was achieved specifically via the introduction of a secondary and lesser threat. Cohen makes the point that the argument for the widespread vaccination of the population was then made with specific reference to the decreased risk from this 'intentional infection' versus what was termed

'accidental' infection where smallpox was contracted by natural means. Here, the vaccine is understood as a lesser risk than smallpox itself (2009: 116–121).

But what is the threat, the smallpox that the FPS, and the game's biopolitical construction of the player as an immune image, is attempting to protect the player from? The emergence of the FPS as a means of producing the player as an immune image comes at a moment when theorists like Brian Rotman – albeit in the tenor of a broadly techno-utopian agenda – have forcefully questioned the enduring reality of the individual within our networked digital media ecology (2008: 103). If we take this dissolution of the individual by digital technology at face value, there is an obvious conflict with neoliberalism's reliance on the constitution humanity as a form of self-interested entrepreneurial life in the form of *homo economicus* (see Foucault 2008). Here, the issue for neoliberal *dispositifs* becomes not only maintaining the life of the body, but also the body *as* an individual that competitively pursues its own interests and security, which become indistinguishable from the interests of the neoliberal economy.

Fredric Jameson, in *Postmodernism*, argues that the inscrutable labyrinths of late capitalism — the mall, the hotel complex, the city without landmarks — operate as confusing and disorienting spaces, often to the detriment of their own success as capitalist enterprises (1991: 44). In their very lack of methods of successful orientation, these spaces signpost what Jameson calls a transition from a modernist space which actively presents itself as a legible environment and what he terms 'postmodern hyperspace'. Jameson claims that this space 'has finally succeeded in transcending the capacities of the individual human body to locate itself, to organise its immediate surroundings perceptually, and cognitively to map its position in a mappable external world' (1991: 44). The postmodern hyperspace of late capitalism produces environments that put their inhabitants into a state of crisis in which the disorienting microcosms of individual buildings come to reflect a broader disturbance in the previously stable relationship between the individual and the totality, which is governed by the systems of global capitalism.

When the space is constructed but also impossible to orient ourselves within, the latter is fractured and ultimately threatened with dissolution. This feedback to the individual is understood by Jameson as resulting from our inability to construct a 'cognitive map' for late capitalism. In this deficit in orientation, our spatial and social confusion is productive of

continual and chaotic movement that neutralises our capacity to resist, to effect social change (1991: 54). However, also – and perhaps equally important – this spatial confusion results in a certain rupture in the pedagogy of capitalism as an economic system. This means that (despite the Marxist tenor of Jameson's work), the cognitive map is both a political and an economic remedy to postmodern hyperspace.

The automation of the individual produced by the FPS's double negation, while acting to cancel interests outside of the desire for self-protection, also acts as a vaccination for the symptoms of postmodern hyperspace and the economic risks that this situation poses. The player as an immune image is no longer 'lost', but oriented via their reactions and the affective intimacy of the FPS. The immune image is, however, a far cry from the creation of a cognitive map for capitalism that Jameson suggests is the remedy for the damaging effects of postmodernity. Rather, it represents the negation of the political subject. I would like to argue that the novice player's gestural crisis is legible as the body coming to terms with a form of orientation that bypasses cognitive processes and addresses the corpus directly: an affective mapping of gesture. The game posits the risk of disorientation and the dissolution of the firm boundaries separating body from its environment to neutralise this danger - not by the production of a subjectified and positioned individual who knows where they are and thus who they are (see Conley 2007), but by inciting the player to orient and govern themselves as an affect-driven, self-defensive, immunitary image. This mode of governmentality operates by decoupling the self-interested economic actor from their own autonomy by making the individual so insecure that they are mastered by their own desire for self-defence. In this way, the FPS functions in an almost paradoxical manner by securing the body as a self-protecting corpus while simultaneously taking control of this body and its gestures.

The immune image that results from novice player's engagement with the game suggests that the ultimate threat posed to the West is not the external dangers of, for example, migration or other forms of contamination from the outside. Rather, the primary danger is reframed as a dissolution of the sensibility of its own economic and political systems. What we see with the FPS isn't an attempt to make sense of these systems but to dispense with intelligibility altogether. For this confusing economic and political sphere to persist and prosper, subjectified individuals must be desubjectified and retrained into becoming reactive, immunitary bodies

fixed in their insecurity and calculated in terms of their activity. In the promulgation of the threat of disorientation and the administration of a radical desubjectifiying vaccine, FPS franchises such as *Call of Duty* maintain control over the body and renounce the necessity to challenge the confusing spatiality of the economies and cultures of the neoliberal West that have so manifestly eclipsed governmental control since the 2008 financial crisis.

4.5 Conclusion

I have mapped the aesthetic elements of the HUD as a gamic skin and sought to use this concept to understand how Activision's *Call of Duty* series of competitive multiplayer FPS titles put the novice player's gestures in to a state of crisis. The production of this twitching body has been read as a form of vaccination that produces a self-defensive gestural reaction and that immunises the player from the disorienting spatiality of Western culture after modernity. This vaccination desubjectifies the player as an immune image, where the player's desire for security has been intensified by the apparatus as a means of bringing them under its control. The player as an authorised and managed image is one that seeks to compulsively internalise and neutralise the other of the game's multiplayer maps and its threatening denizens in a constant state of conflict with the world. This state is one where all interests outside of the player's status as an individual have been negated, but one in which the very status of the subject *as a subject* is made uncertain. What emerges here is a tension in our contemporary world between the disorienting nature of postmodernity and the requirement that individuals are oriented in such a way that they continue to be governable and productive for neoliberal biopolitical interests.

To cite the FPS as a technology where these crises of the body and psyche could be induced, the movements of the frame have been conceptualised as gestures. These corporeal projections operate to make the body's reactions to its possession by power and by the medium of early cinema visible at historical moments. However, in the FPS, the player's ability to move the frame truncates the distance between gesture and the formal qualities of the medium. Here, gestures and aesthetic traditions collide and enter a conflict or negotiation that cannot reach fulfilment. In this situation, the image itself becomes gestural down to its visual organisation; yet, more tellingly, the player's gestures make a transition from Agamben's conceptualisation as lacking in nomos – or the law – to something determined and captured by technology and politics: an image.

Two immune behaviours of the gestural frame emerged from this section. The first took the form a consumption of the game's spaces and was driven by the production of an internal gamic skin of corporeal identification and the capacity for the player's gestures to centre, internalise and aesthetically rationalise the game's external spaces and threats. The second – a spasmodic twitching of the frame – has been read as a futile attempt to neutralise the threat posed by the game's dual manifestations of the out-of-field. Here, the calculated fully rendered, three-dimensional space beyond the player's 'skin' produced both a reduction in the variety of the virtuality of the cinematic frame and an increase in its threatening potentiality.

Each of these movements was viewed through the lens of an immune reaction. In the first instance, in quite a literal sense, the player's interior or gamic skin is secured form the 'evils' of the outside – not by preventing these threats from entering visibility, but by including and centring them within the crosshairs. When considering the out-of-field. I mapped how aiming, mapping and identifying with the game's perspective was always cancelled or undermined by a tension that encroached from its borders or frame. The product of these two influences was a gestural crisis in which the novice player is induced to continually move and jerk the perspective in response to the potential of the game's unknowns to take them by surprise. Despite the almost infinite actions available to the player, what emerged here was a narrowing of the player's potentiality: an 'image' of desubjectification produced by the player's need for self-protection, or an individual negated and desubjectified by their conformity to Esposito's immunitary interpretive framework. Here, immunity is no longer a matter of nation-states, nor of microbes and white blood cells. Rather, it becomes a matter of conduct.

It is worth noting that the emergence of the FPS as a genre with id Software's *Wolfenstein 3D* (1992) coincided with the publication of Jameson's survey of the breakdown of the legibility of modernity in his work *Postmodernism* in 1991. If we take Walter Benjamin's essentially Freudian understanding of the surprised or frightened body and its flux during modernity's high watermark (1999: 171) and consider my conceptualisation of the immune image, each occur at moments of spasmodic alterations in the modality of culture and technology. The body's reaction to the emergence of mechanised urban modernity charted by Benjamin, Agamben and Väliaho (see also Gunning 2006) – has been foregrounded here, but the FPS dominates in a

context where the rational forces behind the mechanised city are breaking down, and political and economic discourses are those of crisis. This situation requires its own vaccine and immune reaction to maintain the healthy governance of populations. This chapter argues that where the cinema may have performed the role of habituating the psyche and body in relation to modernity, the FPS seeks to immunise us from the bodily shocks of a contemporary political and economic context.

Where Jameson identifies the late modern hotel-mall-hybrid as an architectural manifestation of the spatial confusion that is produced without a cognitive map for late capitalism, I believe that the FPS makes this lack of a cognitive map tolerable by automating the player as a totem of the unified and self-protecting individual, albeit one that is fatally compromised and desubjectified. If there is no cognitive map for late capitalism as Jameson has suggested, then the mechanics of the FPS elucidate a situation where maps have been discarded altogether. After all, what use does a desubjectified 'individual' – whose very capacity to have interests has been relegated to a compulsion towards self-defence – have for a map, or for cognition for that matter?

However, this nervous, unhabituated and mastered player is not a monolithic and inevitable output of our engagement with games such as *Call of Duty* and its various iterations and competitors. The player's reactions cannot simply be reduced to reflex-like gestures, but something that develops in time as more authoritative movements. In the next chapter, I turn to more explicit cartographic representations such as the GPS-like mini-map and consider how this competing form of representation acts to compose the fragmented gesturality of the player into a more fully embodied and assertive actor. No FPS player is ever totally fixed or complete; instead, there is something more akin to a cycle of habituation (or even a lifecycle) that takes place and it is with a view to charting these changes that I proceed in the next chapter.

Cartographic Gaming

5. Introduction

In the following pages, I argue that the mini-map stitched into the margin of the HUD in the *Call of Duty* series and EA's *Battlefield 4* leverages the power of cartography to 'redefine the field of perception' (Jacob 2006: 11) and provide a prosthetic and reduced proprioceptive sense for the player by provoking sense-making trajectories of navigation. A form of cartographic gaming emerges here that engages the player in a mapping of the game's spaces, a charting and neutralising of enemy players and, more tellingly, a diagramming of a player's sense of embodiment in both psychic and corporeal terms that deepens the reactive immunitary character of the experience.

My attempt to grasp the importance of the mini-map in the competitive multiplayer modes of 2015's *Call of Duty: Advanced Warfare* (Activision) and 2013's *Battlefield 4* (EA Digital Illusions) is set against a situation in which I take the fragmentation of the player's on-screen avatar as a visual allusion to the way in which videogames exclude or attempt to remap the player's body. I focus on the game's reductive manipulation of proprioception, a sense critical for instigating intentional action (Gallagher 2006) and enabling acts of corporeal navigation (Massumi 2002). I approach cartographic visuals of these games and their effect on player actions as acting to reconstruct a corpus, a 'body image' unique to the game that exceeds the nervous gesturality imposed by the construction of a sensitised and insecure gamic skin.

Once the character of the excluded proprioceptive sense is established, this chapter seeks to understand the role of the mini-map in in the process of generating a sense of player identification with the cartographic symbol on its surface as the opening required for regimes of embodiment to take hold. To understand how this process occurs, I ask how the map answers the 'first question' (Jacob 2006) of the cartographic user 'where am I?' and suggest that this image, following Tom Conley's work on cartography in the cinema (2007), also functions to

answer the question 'who am I?' This entails a somewhat promiscuous theoretical approach unwedded to either psychoanalytical or corporeal conceptions of the self. This connection to identity leads me to consider the mini-map in terms of the concept of body image, that Shaun Gallagher describes as: 'a system of perceptions, attitudes, and beliefs pertaining to one's own body' (2006: 24). Here, I speculate on how the map operates to produce an image of the player that feeds back into their perception of their body image.

Rather than approaching the mini-map as a static image, I ask how it immanently influences navigational practice and rearranges the 'cardinality' of the player's in-game body via a cartographically endowed prosthetic proprioceptive sense. Critical GIS scholar Matthew Wilson has noted the necessity for GIS and location-based technologies to be understood as interfaces that are 'optimized for specific capacities (of thought/action) and not others' (2014: 299). The centrality of action to Wilson's call for a new research agenda in his field also means that the practice of using technologies such as Google Maps is freed from discussions of cartography as a technology of the disembodied gaze. Instead, the ways that location-based devices modulate the actions of map users tracked in 'real time' are foregrounded. Both James Ash (2010) and Gordon Calleja (2011) have written about how video game environments and interfaces produce altered senses of embodiment, refiguring the body and its orientation (or cardinality) to their own regimes of spatial involvement. To each game its body; but also, with Wilson's claim that GPS-enabled devices govern the thoughts and actions of the map reader in mind, to each map its body.

Where the last chapter perceived the unhabituated player's actions as driven by an aversion to affective shocks and unanticipated moments of fright, here I turn to fear – an emotional response Freud understands as being bound up with knowledge and connected to a specific object (2010: 12). Fear in this case is not simply aligned with affect, but represents the moment it is processed and categorised, brought into knowledge as an emotion. For Massumi:

Emotion is a qualified intensity, the conventional, consensual point of intersection of intensity into semantically and semiotically formed progressions, into narrativizable action-reaction circuits, into function and meaning. It is intensity owned and recognized. (2002: 28)

I chart the mini-map as being able to produce a kind of body for the player, albeit one produced through fear-induced movements that represent a shaping of the FPS's affective power by the authority of the cartographic image to qualify and organise the player's affective relationship with the game. This does not mean that affect is cancelled or blocked rather, that it is modulated and ordered by the power of the map. This tallies with the general thrust of this thesis as an attempt to complicate the idea that ludic goals are the driving force behind regimes of action and involvement in contemporary videogames.

Finally, I embark on a more speculative analysis that takes the fear-based construction of the cartographic body image and subjects it to an analysis of in-game situations where these fears multiply in temporally and spatially unpredictable ways. Here, I suggest that an overload of cartographic information and competing trajectories of fear-based action puts the rational basis for the construction of the game's body image under stress. Something akin to the twitching body in a state of gestural crisis re-emerges here, extending its interior in multiple directions. It is not commensurate with a sense-making subjectified individual corpus, but extends untidily into the game's space, suggesting a process of desubjectification. In this case, the space of the body is extended to the boundaries of the mini-map itself, taking on the aspect of the interior, invaded and infected by pathogens that must be fought off in a return of the concept of biopolitical immunity.

5.1 The wound and its suture: proprioception, action, navigation

What if our eyes were made in such a way as to prevent our seeing any part of our body, or some diabolical contraption were to let us move our hands over things, while preventing us from touching our own body? ...Such a body would not reflect itself; it would be an almost adamantine body, not really flesh, not really the body of a human being. There would be no humanity.

(Merleau-Ponty 1993: 125)

Game log 5.1

There are instances, moments of stillness, when I take up a position in some nook or imagined cul-de-sac in a multiplayer match of *Call of Duty* or *Battlefield* that afford some sense of

protection from the threats posed by the game's visual-corporeal regime. I wait in ambush for an enemy player to break into the first-person perspective, to wander into my crosshairs, aiming for me. My hands tend to relax, holding the pad loosely as if at fingers' length. I idly zoom into likely killing zones, making tighter frames, but these actions lack a definitive objective. The tension ebbs from my hands. The sense of vulnerability produced by the game's perspective seems to wane. 'Visibility is a trap' (1991: 200) Foucault tells us in his reading of the panopticon in *Discipline and Punish* and I have made the frame a trap for my enemies. But, lying in wait, I find myself drifting from the game, my actions lacking purpose.

In one of these moments of imagined security, I found myself panning the frame down towards my avatar's body. In the absence, enemy action or the inclusionary exclusion of the game's spaces within the frame that signals compulsive visual neutralization, I sought out my own graphically rendered physical form. The shock to any player of a game of Activision's *Call of Duty* series, or its cousin and competitor EA's *Battlefield* who engages in a similar move is that instead of seeing their avatar's torso and boots, they see nothing — just empty space.

This image, one of absence, produced an instant of confusion as my avatar's hands and gun seemed simply to pivot in mid-air. This action has no corresponding proprioceptive or kinesthetic sensation. The body's capacities for registering its own movement; the plunge of my neck and trunk, the surge of flexing muscles from my feet, up through my calves and core, bracing for this change in balance, were as absent as the expected image of my avatar. The intensity of my grip on the gamepad increased and a general tension gripped my body, not as a precursor to a dynamic projection through space, but as part of the action, the movement of the body required to maintain a perplexed stillness.

Where am I? What am I?



Figure 4.1: Where am I? Screen grab from Battlefield 4 (EA, 2013)

In the game log above, a duration where threats seemed less imminent and lacking in affective intensity led me to seek out my avatar. It was a moment when concerns seemingly beyond a compulsive desire for security on aesthetic, ludic and personal levels were manifested in an action that sought to secure the visual corpus of my in-game representation. I wanted to find the image of my body and say 'there I am'. However, both *Call of Duty* and EA's *Battlefield* games do not allow the player to fulfil this impulse using the first-person perspective. There is no torso, no legs or feet that I might turn my weapon upon. This rupture in the principle of line-of-sight –vital for the action of aiming and firing that I have argued is such a significant influence on what we do in the FPS, and how the player comes to identify with and is immersed within its spaces – is puzzling. Suddenly something that should be visible is withheld and a visual anomaly is introduced that seems to place a question mark on my presence within the game in terms of my avatar and the action of firing that I have understood as productive of fleeting moments of immersion within its multiplayer maps. My body escapes my aim.

This 'wrinkle' in the game's power to represent the content within the multiplayer map seemed to dial me back into my body, still manifestly present in the actual. As I began to attend to my corpus, the absence or fracture of the on-screen avatar produced another fracture in my involvement with the game. My crossed legs and hunched shoulders made themselves known,

tensions in my muscles became consciously present, and stretches of my limbs stood on the edge of extension. In other words, there was a growing awareness of my proprioceptive and other tactile senses reporting my bodily position. My attentiveness to its self-relations and sensations of discomfort emphasised the rupture produced by my dislocation from the game's multiplayer map, from that new body with its different movements, sensations, vision and drives the game had constructed for me. The visual absence of a representation of the avatar was doubled in proprioceptive terms by a lack of a sense of embodiment within the game's environment.

If an embodied presence in the FPS is endowed by the synchronicity of manual inputs and on-screen actions as suggested by Susan Morris (2002), Alexander Galloway (2006) and Martti Lahti (2003), this impression must vie with proprioceptive, visceral, as well as pressure and temperature senses that are non-synchronous physical signals with respect to how we move and what we see on screen. The videogame apparatus fragments sense perceptions that usually operate collectively by capturing the player in a cybernetic feedback loop of cause and effect between corpus and technology (see also Aarseth 1999 and Crogan 2011). In this situation, the game attempts to produce a sense of embodiment with those capacities that are at its disposal, leaving the corpus understood in an essentialised and normative manner as endowed with a predetermined and unified suite of senses in a state of injury.

The relationship between the FPS and our proprioceptive sense — the mechanism through which the body 'integrate[s] its own positions and responses' (Gallagher 2006: 32) at first appears straightforward as the body's sensory map of itself cannot be enveloped within a videogame's fully rendered environments. The FPS has recourse to a limited set of sensory registers; namely vision and the haptic impressions afforded by manual gestures that are conjoined by a cause and effect relationship between input device and screen. If proprioception cannot be fully patched into the game's spaces, this poses a problem for the way that the FPS fosters a sense of embodiment and corporeal presence within its reality. In effect, the player's sense of embodiment in videogame space is the product of a visual and tactile work-around that produces a rupture between the sensations produced by proprioception and the player's visual and haptic sensitivities. Embodiment in the game begins with a wound.

To put this injury into perspective, Shaun Gallagher has argued that proprioception is fundamental to the body's capacity to take intentional action (2006: 27). The prospect of the inability of the in-game body to register its movements within its spaces suggests not only the exclusion of a suite of sensations, but an injury that cuts deeply into the player's capacity to take actions that are meaningful. However, the characterisation of action as a central aspect of the videogame medium (Galloway 2006: 4) and experience means that there is a disjunction between the way that proprioception has been conceptualised as so crucial to intentional action and the reality of the practice of playing videogames. This is because all movements in the FPS cannot be read as desubjectified twitches, suggesting that a proxy or prosthetic capable of providing a sense of orientation to the player's body allowing them to take self-directed and meaningful action must be put into play.

Yet more than simply establishing the conditions for action, Gallagher suggests that the proprioceptive sense is a foundational element of a broader conception of humanity understood in his work as a conscious being able to interact with others and its environment:

Movement and the registration of movement in a developing proprioceptive system (that is, a system that registers its own self-movement) contributes to the self-organising development of neuronal structures responsible not only for motor action, but for the way we come to be conscious of ourselves, to communicate with others, and to live in the surrounding world. (Gallagher 2006: 1)

Here, the proprioceptive sense and the movement capacities with which it endows the body are understood to be the non-conscious root of many of the elements of conscious thought. Moreover, proprioception takes up a pivotal role in formulating our sense of self and our capacity to form and articulate relationships with the people around us. In a similar vein, Maxine Sheets-Johnstone has argued for the primacy of movement (of which proprioception is a founding condition) in not only our immediate capacity to make sense of the world, but in the production of transcendental subjectivity, that is, consciousness (2011: 139). In both Gallagher and Sheets-Johnstone's work, the proprioceptive sense takes shape as a condition for shifting discourses of consciousness away from neurological theories that understand the brain as being the seat of personhood and towards the more complex *a priori* dynamics of the body. If our corporeal actions and our capacity to sense these actions can be in some way hijacked and reproduced by the videogame, there are attendant consequences for how we can think, behave

and more: for what we can be and become.

5.1.2 Navigation: proprioceptive autopilot

Brian Massumi (2002: 179) has argued for the importance of the proprioceptive sense to dynamics of navigation. For Massumi proprioception endows the body with an 'autopilot' function that carries us from A to B, superseding the influence of visual perception and concepts of cognitive mapping predicated on the idea that we navigate by constructing visual records of spaces in our minds. For Massumi, in a similar vein to Gallagher's broadening of the importance of the proprioceptive sense, our ability to intuitively sense and construct a tactile map of our bodies is not restricted to registering its position, but also assembles these impressions into larger chains of sensation, of 'contortion and rhythm' (2002: 179) capable of being deployed in action as non-conscious trajectories of navigation.

A key point to make here is that if the body lacks an 'internal' sense of orientation, then there is no corporeal basis for acts of navigation. If there is no proprioceptive sense of front or back in terms of the orientation of the body, then even if you know where you would like to go, coordinating the corpus in such a way as to get there becomes impossible. Massumi suggests that proprioception provides not only an immediate sense of feedback of the body's position and posture, but also exists in non-conscious memory wherein complex rhythms of proprioceptive sensation are stored allowing the body to navigate familiar spaces on a form of corporeal autopilot. He believes that proprioceptive navigation is the dominant method that bodies use to get where they are going. The question that this raises is that if proprioception is excluded from the videogame – meaning we are 'missing' a functional body image with which to travel from here to there – then how is this sense reconstructed, this injury healed? And further, does the lack of a proprioceptive or corporeal map of the body in the FPS suggest a more general deficit of orientation commensurate with the lack of what Frederic Jameson (1991: 54) has called a cognitive map for late capitalism?

Jameson's conceptualisation of disorientation in late capitalism characterised as the lack of a cognitive map should not be conflated with the theory of cognitive mapping critiqued by Massumi. Massumi's critique of psychological notions of cognitive mapping characterises it as an idea limited to the discourses of spatial experience, which argues that we navigate by

constructing and memorising exacting visual maps of spaces in our minds. Here, navigation is a function of the connection between vision and memory in which a kind of model is constructed by the brain, like a three-dimensional GPS map that is used in conjunction with visual perception in order that the body can be plotted towards its destination. This model is explicitly visual and conscious, and casts the body as a passive carrier for the thinking brain. Massumi aptly refutes this understanding of navigation by stating that 'we wouldn't have to carry maps on paper if we had them in our brains' (2002: 181). In other words, the explicitly visual and conscious model of cognitive mapping excludes the contribution of proprioception from navigation, while the presence of visual aids, such as maps, also suggests that the notion of cognitive maps is at best a partial mechanism for navigation.

With the seeming importance of the proprioceptive sense for bodily action, consciousness, communication and navigation, a characterisation of this non-visual sense as excluded from the videogame poses myriad problems to understanding how the player makes sense of and acts within the FPS's fully rendered spaces (see Galloway 2006: 62) in a manner that exceeds the reflex-like automatism discussed in the previous chapter. However, the suggestion here is also that if we *did* have a map in our brains, then the necessity for the proprioceptive sense for navigation would be put under question. It is this situation that I believe occurs when the player refers to the mini-map while playing the FPS.

5.1.3 Proprioception and the visual prosthesis

A return to Gallagher's work is important here. He perceives the body image and proprioceptively endowed body schema as being separate, but interrelated systems. Gallagher describes a medical case study in which a patient has a missing proprioceptive sense but could function normally by a continual conscious and visual monitoring of their body (2006: 44). This suggests that the visual sense and our conscious body image can produce a functional proxy for the non-conscious proprioceptive sense. In turn, this raises the possibility that technologies capable of immanently imagining, monitoring and orienting the body in space, like the FPS' minimap and GPS tracking devices, could act as a prosthesis for proprioception. However, the particularity of these technical prostheses must not be left unattended as such an alteration to the body's capacities of self-referencing and orientation inevitably raise issues of the body's shaping by technological and political forces.

The relationship between consciously processed images of the body and its sensory organisation by proprioception has been explored by Elizabeth Grosz in her work *Volatile Bodies* (1994) under the notion of body image, which incorporates what Gallagher would call both its schema and its image. Grosz produces a genealogy of the body image that suggests, far from being anatomically determined, our bodies are constructed by psychological and cultural conceptions that migrate from its exterior. Offering a feminist reading of Paul Ferdinand Schilder's work (1931, 1953, 1978), Grosz argues that our conception and experience of our bodies is always subject to alteration because all anatomical aspects and behaviours are psychologically realised. Within this reading, both the subject's self-image and their ability to proprioceptively map their body are combined in the body image, which is always mobile, volatile and vulnerable to external acts of mapping by power. At the root of Grosz's adoption of Schilder's understanding of the body image lies a will to reveal the patterning and training that the gendered body undergoes within patriarchal culture. For Grosz:

the body image cannot simply be unequivocally identified with sensations provided by a purely anatomical body. The body image is as much a function of the subject's psychology and sociohistorical context as of anatomy. (1994: 79)

The great insight of Grosz's corporeal feminism is that it elucidates the mechanisms of power that operate to construct the unity of the body in contemporary Western culture as culturally and politically determined. Her work also suggests that the body image is the dominant factor in shaping both our crystalised (but plastic) self-image and how the body is sensed, felt and moves – its proprioceptive sense. Here, just as in Gallagher's case study of the missing proprioceptive sense, forces of monitoring and control are capable of overwriting or compensating for the body's anatomically endowed capacities of orientation and self-organisation. If the FPS – and videogames in general – are to be understood as capturing and shaping the body image, then first the idea that the construction of this body can be achieved via the image, and second that this process is inherently tied to the politics provides a way of interpreting videogame embodiment in terms of the body image seen as a technocultural corpus.

This suggests that the first-person shooter is a politically inflected 'diabolical contraption', to borrow Merleau-Ponty's phrase, that, rather than rendering the body totally insensate, can be

understood, as 'designed to yield a sense of augmented embodiment' (Gregersen and Grodal 2009: 68) by creating a rupture or injury in the exclusion of the proprioceptive sense and then offering a visual means of repairing this wound, albeit via specific techniques that cannot be approached as politically neutral. I would like to argue that the key to understanding why a literal image of the player's in-game body or avatar does not appear in the first-person perspective and the implicit way that this alludes to the player's wounded proprioceptive sense lies in the way the mini-map *does* visualise and orient our in-game body. In this sense, the player's plotted presence on the mini-map is read as a supplementary cartographic avatar.

Although my work in Chapter 4 sought to contribute to debates regarding how the player can identify with the first-person perspective as a gamic cutaneous layer through which the player senses in tactile and visual ways, I read immersion within the game environment as a gunshotquick sense of being there, of being embodied. In approaching how the player's body comes to take up residence in the game space, I want to suggest that the mini-map can provide a proxy for the player's avatar, albeit in a modified form to the three-dimensional models of the Uncharted (2007–2016) series' Nathan Drake, or Lara Croft from the long-running Tomb Raider (1996–2016) franchise. Regarding the latter, Espen Aarseth has argued that 'when I play, I don't even see her body, but see through it and past it' (2006: 48)). Although there is an apparent undertow of gender politics at play here, the central point is that, for Aarseth, the representational form of the avatar is irrelevant to the kinds of actions and sense of embodiment produced in and by the player because it is in some sense unseen. While the FPS player may also be able to see past the mini-map because of its compositional marginality, they also rely on it for crucial information regarding the landscape of the multiplayer map, the locations of friends and foes and the orientation of the first-person perspective. The idea that its representational form is irrelevant to the player seems remote. In contrast, Ewan Kirkland has argued that:

The avatar's nature is multiple rather than singular, and varied rather than uniform. This produces different subjective positions, and different experiences of embodiment, according to the body of the avatar and the body of the user. (2012: 140)

For Kirkland, the avatar and the body of the player are entangled in a fluid negotiation that bears on the player's sense of embodiment. Importantly for my argument here is the idea that

the way the player's cartographic avatar is situated and represented within the cartography of the mini-map has consequences for the kind of actions the player can take because it is crucial in the production of a body image. More, it situates the player in the game's three-dimensional multiplayer maps, suggesting concrete consequences for the player's sense of positionality. This raises the question of how exactly the mini-map relates to the dominance of the first-person perspective and queries the more general effect of the appearance of cartographic representations in screen media.

5.2 Maps within maps

In *Cartographic Cinema*, Tom Conley suggests the map's appearance within the cinematic image is defined by a kind of double-edged disposition. For Conley, cinematic maps simultaneously aid in the construction of cinematic space and place – immersing the spectator in cinematic worlds – and disrupt the fictional geographies and related regimes of psychic transcendence and bodily affect that bracket the spectator's intimate relationship with the screen (2007: 5). The root cause of this split personality of the cinematic map is its alterity within the frame. It is always both enveloped within the cinematic image, involved in regulating the spectator's spatial imagination and an outsider signalling the artifice of cinematic worlds and film's techniques of perceptual illusion.

For Conley, when maps appear on screen, they raise issues of positionality. The self-reflective mode of spectatorship produced by the cinematic map extends back not only to a questioning of film's strategies of spectator identification and manipulation (the image's diagrammatic power), but also to wider issues of spectator's politics of place as something fixed and immobile within wider culture and its structures (2007: 4). The question Conley's work poses in the context of the current analysis of the FPS and the mini-map is whether videogame cartography has the same 'alterity' within the FPS's image as the maps that appear within the diegetic worlds of the cinema. In turn, the answer to this question will determine whether an affirmative reading of the mini-map's politics based upon this mediatic otherness is also possible.

In the FPS, there is a point-to-point and temporally live relationship between the multiplayer map and the mini-map in terms of geographic accuracy and between the movement of the

player's aim and the orientation of the cartographic chevron that represents them on the map. However, the mini-map is clearly differentiated from the multiplayer map in both its representational style and its positioning as a discrete frame-within-a-frame on the gamic skin of the HUD. This obvious difference in representational conventions between the multiplayer map and the mini-map, and the graphic delineation between the mini-map's frame and the borders of the gamic skin, suggests that its otherness in respect to the rest of the image is made plain in games such as *Call of Duty: Advanced Warfare* (2015) and *Battlefield 4* (2013). However, in the nomenclature of these two types of maps – the accuracy of the mini-map's ability to represent the three-dimensional space in two cartographic dimensions, and the capacity to track or mirror player actions – it appears that the production of 'alterity' and its reflective and affirmative capacity to question the diagrammatic power of the game and of society more generally is limited. Writing at the dawn of what we might call the age of GPS ubiquity, Michael R. Curry has suggested that GPS and GIS technologies fundamentally alter the nature of the map and its first question 'Where am I?':

Any system, whatever its accuracy, represents a fixed object as drifting over time. The drift is, of course, on the map; it is in the data... The question is no longer "where am I" on the earth, but... "Where am I on their map?" (1998: 99)

Where, for Curry, we are placed on the owned pixels of the GPS map, the FPS intensifies this positioning by coordinating our location on the mini-map with our place on the three-dimensional multiplayer map that constitutes the game's external competitive environment. In effect, we have a doubling of the game's spatial power. The player is enveloped in maps of maps. The point-to-point coordination between the mini-map and the game's three-dimensional multiplayer maps minimises the representational distance between them, meaning that the potential for the player to enter a reflective situation as suggested by Conley in his analysis of maps and the map-like qualities of the cinema seems remote. If maps bear on our identities by influencing our conception of where we are by telling us who we are, then the mini-map — rather than producing a form of imaginary and psychological mobility, seems to fold the player ever more tightly into the game's world. They achieve this, not simply by supplying the player with a cartographic representation of the game's environment, but by providing the player with a mirror of their avatar via the language of the cartographic symbol. In this sense, because the map also represents the player's avatar — albeit in a reduced and symbolic form — the distance

between map and player, and therefore between the FPS as an apparatus and the player's corpus and psyche, is drastically reduced. In effect, the player cannot escape the map and is caught in a rhythm of coordination between mini-map and multiplayer map that continually feeds them back into the game. The player is captured in maps of maps.

5.2.1 The self-centred mini-map and the body image

Game Log 5.2

Call of Duty: Advanced Warfare (2015) | Team Deathmatch | 'Detroit' | January 2015.

The yellow chevron at the centre of the mini-map glows like a lighthouse's beacon signal, drawing my gaze from the liquid unpredictability of the game's multiplayer environment to the safe harbor of my position plotted in two cartographic dimensions. This cartographic symbol takes the form of an isosceles triangle, articulating not only my position within the game's geography, but pointing to my avatar's orientation. The tapering map marker rhymes with the shape of my fragmented avatar's arms and weapons that project towards the crosshairs at the centre of the first-person perspective. Arms and gun reach into the dystopian cityscape. Minimap chevron projects itself forward in 2D cartography. A mirror of my in-game corpus, the symbol points, like my gun. The absence of my avatar's lower body no longer seems so strange.

As I alter the first-person perspective across the down-and-out street, scanning for enemies in cover behind cars – half aware of the changes in my field of view – the orientation of the chevron moves with my gestures in real time, like the turns of my head as I survey my reflection in the bathroom mirror each morning. The mirror of the chevron's shape with my avatar's disembodied arms and weapon is doubled by a mirroring of movement. There I am, gestures, frame and cartography moving as one body, as me.

I gesture the perspective into an alleyway, a choke point where enemies often camp en masse, aiming into a double doorway, then into the bleached natural light of the end of the alley in quick percussive beats of the game-pad. But the chevron remains in the centre of the mini-map. It is as if despite the mirroring of my twists and turns, this representation of my body remains composed – both aesthetically in the sense that it is being assembled – by the game's visual regime. Instead, the map passes beneath its rectangular frame, which is locked in place in the top

left hand corner of the HUD. It's tracking, not mirroring my gaze. Following, framing, hunting, just like the enemy players, reminding me I can be seen and shot.

In the *Call of Duty* franchise and EA's *Battlefield* games, the HUD's mini-map feeds a live GPS-like representation of the player's in-game position, their orientation and movements within the multiplayer map to the player. The player's avatar, otherwise incomplete – fragmented and ruptured by the first-person perspective – is rendered and reduced in its totality as a symbol on the mini-map, a 'cartographic fact' (2001: 77), in J.B. Harley's terms, whose capacity to accurately capture the player's location and movements represents an intensification of the game's capacity to represent the player 'truly'. For Harley, in an echo of Foucault's understanding of the constitutive relationship between power and knowledge, the symbolic realism of cartography leverages claims to accuracy as a 'talisman of authority' (Harley 2001: 77). It is the 'fact' of this cartographic representation of the player's avatar as a site of identification and its contribution to the player's in-game body image that I explore here as a foundational element of the way in which competitive FPS games such as *Call of Duty* and *Battlefield* compensate for and heal the player's proprioceptive wound.

5.2.2 Analogue maps to mini-map

Map theorist Christian Jacob has argued that the distributed compositional conventions of analogue maps produce a de-centred, mobile and disembodied gaze that destabilises the contingencies of the map reader's physical positioning. The compositional place — or lack of — of the individual on the analogue map and the turn towards the centring and tracking of the maps user in GPS is a key change in contemporary cartography that must be mapped here to make sense of how the in-game cartography of competitive online FPS games shapes the player in new ways. For Jacob, analogue maps represent a situation in which:

The individual no longer has a place of his or her own; his or her identity is dissolved in the infinitely small, in the invisible, in contrast to the immensity of the continent. The individual vanishes into the collective, national, ethnic, and geographical entity. It is as if the individual were entirely in his or her panoptic or overlooking eye, outside the map, strangely detached from the contingencies of this world, as if the gaze on the world map no longer required a localized point of view, no longer had a centre. (2006: 338)

In an implicit contrast with renaissance perspectival regimes of subject positioning (see Baudry 1974, Friedberg 2009, Panofsky 1997, Kubovy 1986), Jacob suggests the distributed composition of the map means that the map reader adopts a perspective that operates not by projecting the gaze into the centre of the three-dimensional space of the image, but by mobilising it. The map reader's look meanders across the surface of the map's abstracted geography, losing a sense of embodied place. For Jacob, freeing the gaze from the context of embodied visual perception as well as from contesting visual regimes of linear perspective also represents a release from the map user's status as an individual, producing a deterritorialisation of the body.

This psychological transcendence of the individual creates a cartographic space for the imagination to roam, as it lacks a centre or body with which to identify. In turn, the production of an incorporeal and mobile gaze raises the possibility of a form of reflection or nomadism. Implicit in the act of reading an analogue map is the potential to put into play a mobile politics of location capable of resisting the rigid regimes of positionality such as that articulated by Harley's notion of a 'freezing of social relations' (Harley 2001: 79). Kingsbury and Jones (2008) have argued for the Nietzschean 'Dionysian' vision of Google Earth in this vein, suggesting a connection between GPS-enabled cartography and a form of playful mobility in which the loss of individual subject positioning noted by Jacob relates to a form of free-floating identity associated with Deleuzian nomadism. Therefore, Google Earth is not understood in terms of the gaze, or identity but as productive of an indeterminate meandering without route-finding or destinations, an 'in-between [that]...has taken all the consistency and enjoys both an autonomy and a direction of its own' (Deleuze and Guattari 1987: 308).

However, the Jacob quote above also suggests this capacity for the map user to become decoupled from their embodied position and lose their sense of individuality is not an end-point. Rather, it is an opening to a colonisation of an 'individual [that] vanishes into the collective, national, ethnic, and geographical entity' (2006: 338). There is a politically motivated dialectic of mobility and fixity in analogue cartography's subjectifying powers. The lack of a compositional centre results in a transcendent mobility attaching the gaze and psyche to forms of collective identification, like the borders of nation-states. Therefore, cartographic disembodiment is the opening for a form of transcendental identification, where distributed conventions of composition produce the map user's mobile gaze as the predicate for the projection into and

alignment with political construction of the earth. When Baudrillard states that the 'territory no longer precedes the map, nor survives it' (2004: 169), the power of the map to refashion the way that we imagine our geographic and political reality is underscored. However, what Jacob's adoption of theories of gaze and identification suggests is that this production of the territory also makes the landscape commensurate with our sense of identity. In a context mediated by cartography, the map user no longer precedes the map, nor does their status as an individual survive it.

In terms of the FPS, the question that this mode of transcendent map reading raises is whether the mini-map also functions in a similar manner by contesting the affective and bodily dynamics operating to produce the individual in a state of gestural crisis. As the player moves along the Zaxis into the multiplayer map, the mini-map tracks their position on a two-dimensional plane across X and Y axes. In this way, it keeps the player in the centre so that it seems that the map orbits the player, much in the same manner as Google Maps tracks you as you navigate in the actual. The tendency to centre on the position of the map user and player represents a stepchange in the compositional language of maps and must be accounted for when considering their power as images. The kind of transcendent and mobile gaze that dissolves the individual as described by Jacob seems very remote when you are playing a round of team deathmatch in Call of Duty or conquest in Battlefield. Instead, there is a fixing of the perspective upon the player that continually guides vision back to the centre of the image where the player's cartographic avatar is situated. Instead of being dissolved, what appears to be happening here is a visual fixation of the map upon the individual, who is rendered as a cartographic symbol. Here, 'accurate' cartographic authority transitions from a symbolic production of territories to the creation of a cartographic symbol that represents the player's presence in the game, a kind of symbolic avatar.

Therefore, the composition of the mini-map, rather than unmooring the gaze and producing an opening for identification with the politically shaped territories of the map, captures and redirects it to a cartographic representation of the player. Whatever the transcendent qualities of the cartographic gaze, here there is an equally powerful tendency towards feeding the player an image of themselves that is defined by immanence. Google Maps and the FPS's mini-map seek to imagine the body as their primary territory.

5.2.3 The cartographic symbol as psychological mirror

If we think back for a moment about the connection made in the previous chapter between the gestural movement of the gamic skin, aiming and firing, and the resulting issues of identification and immersion, then the mini-map appears to connect to a more general convention of centring and action in the FPS genre. If the movement of the first-person perspective is in some sense legible as a desire to centre and neutralise the game's perspectival and spatial threats that stand in for the threatening breakdown of modernity's rationalised spatiality, then the mini-map presents the player with an image in which they are continually represented and centred – in some sense immunised from a sense of disorientation within the environment. This suggests that, for GPS and the mini-map, the user is definitively *inside the map* – at its centre – and clearly differentiated from the game's environment and the cartographic representation of the user's immediate locale. Legible here is a reversal in GPS and the FPS mini-map's approach to the map user/player in that maintaining the status of the individual subject as an individual is quite literally the map's central concern.

J. B. Harley has referred to the map as a technology that casts itself as 'a mirror, a graphic representation, of some aspect of the real world' (Harley 2001: 35). The term 'mirror' is useful here because it alludes to the idea that GPS maps and the mini-maps that locate the user on their surface are a technology that attempts to recast cartography as an apparatus involved in the subjectification of the individual. This visual production of the individual subject bears on issues of embodiment and the map user/FPS player's capacity to critically engage in a politics of location by mirroring not just the landscape, but also the body. This appearance of the map user and their movements on the map suggest the possibility of reframing both GPS and the minimap as a mirror in the Lacanian sense of providing a method for (mis)identifying with the cartographic image as if it reflected the bodily presence of the player/user, the 'I'. Lacan's mirror stage is by no means a straightforward or uncontested notion. And, despite its appropriation and ascendency in Film Studies during the 1970s and 80s, (most notably by Christian Metz in *The Imaginary Signifier* [1982]) it's tendency to produce monolithic and invariably male models of film spectatorship has solidified its position as part of the history or past of film theory, although an important one (see Elsaesser and Hagener 2010 and Stam 2001).

In 'The Mirror Stage as Formative of the I Function', Lacan (2006: 75) argues that the mirror stage articulates a phase in the development of the infant in which visual perception has outstripped sensorimotor skills. Here, the infant can recognise themselves visually in the mirror while still being unable to manipulate their bodies in such a way as to gain some degree of autonomy over their actions. This imbalance or lack sets the stage for what Lacan suggests is the moment the infant recognises their reflection, which is characterised by a fracture in which the infant's sense of 'I' as a self-image is produced as a kind of imaginary form separate from the limitations of the body.

The infant comes to identify with themselves *as* an image distinct from and superior to their embodied experience. This enables the infant to narcissistically project in jubilant fashion an ideal self onto this image that is no longer constrained by the limitations of the body. The allure of this mirage of completeness and maturation endows the infant with a sense of corporeal authority. This egotistic element is a key facet of the way that Christian Metz (1982) argued the cinema screen was a kind of metaphorical mirror able to induce the spectator to misidentify both the look of the camera (primary identification) and the characters on screen (secondary identification) as ideal self-images. For both his mentor Jean-Louis Baudry (1974) and himself, a narcissistic and uncritical identification with the cinematic image as a form of ideal and total vision allows the ideological values of the cinema to encamp at the centre of the spectator's sense of self. Self and apparatus are unified: the former dominated by the latter.

I have already discussed the gestural form of identification and resulting ephemeral sense of immersion produced by the first-person perspective in the previous chapter. I would like to argue that – in a situation where purely reflex-like and reactive gestures cease to dominate, either because the player becomes habituated to these sensations or because the game's threats are remote – the FPS player, needing a sense of his/her bodily orientation and position within the game, seeks out their image on the mini-map. The player here has a certain resonance with Lacan's conception of the infant's lack of corporeal mastery in the mirror stage because the proprioceptive sense that would ordinarily be supplied by their body in the actual is also lacking.

However, the avatar's corpus is missing from the game's image except in cartographic form. Not only does the mini-map provide an image of body (albeit an abstracted or symbolic image) but it also compensates for the lack of a proprioceptive sense by imagining the body as a chevron or arrow, giving a clear indication of its orientation within the landscape. Added to this, the minimap extends the limits of the first-person perspective, allowing the cartographic mirror image to be situated within the landscape via a 360-degree field of vision, conforming to Denis Cosgrove's idea that '(t)he map is one of those instruments that serves to extend the capacities of the human body' (2008: 168). In this way, the GPS-style mini-map acts like a mirror: it provides the player with an image of their position in the game's space that compensates for a bodily lack, even extending the visual sense beyond the normal linear laws of optics that prevent us from seeing around corners and through solid barriers. The lack produced by the excluded proprioceptive sense combined with the production of an image of the body completed and accurately represented via the power of the cartographic symbol supplies ample rationale to suggest a motivation for identification with the chevron at the centre of a kind of cartographic mirror. Here, the image and the mechanics of gaze and psyche step in to fill the void produced by an excluded corporeal sense.

However, it is also worth reflecting on the game log that opened this section and the observation regarding the aesthetic rhyming (if not reflection) between the visible fragment of the avatar's hands and weapon, and the chevron or map marker that locates them on the minimap. Here we have a situation where, in normal play, the only visible elements of the player's avatar that appear on screen are the arms and gun, which project in a triangular shape and intersect exactly with the screen's centre, denoted by the crosshairs. As stated in my introduction, the trunk and lower body of the avatar cannot be captured by the first-person perspective in the same way as people with a full range of movement and no visual impairment can visually map their own bodily position. I explored the paradoxical relationship that this fixed compositional element has with the history of renaissance and cinematic aesthetics in the previous chapter. However, the fact that both the first-person perspective's avatar and the minimap's representation of the in-game body are both isosceles triangles that are defined by their relationship to the centre of the frames in which they appear cannot simply be overlooked. Both in terms of general appearance and composition, the chevron on the mini-map literally reflects the body as it appears on screen: like a mirror image, but one that extends and improves vision

beyond its normal limits, providing the player with a kind of ideal (but reduced) and perversely recognisable image of their body – a cartographically imagined ideal self.

5.2.4 An animated and animating mirror

However, the mini-map is not simply an image that, like the cinema, runs according to a semiotic sequence about which the spectator can do nothing. The chevron that represents the player's self-image both moves by tracking the player across the multiplayer map and represents changes in the avatar's orientation. This means that while the player might form a psychological relationship to the mini-map's representation of their in-game body operating via the gaze and a transcendent relationship with the corpus, this image is always buttressed with an active, tactile relationship of cause and effect between player action and on-map movement.

In terms of the bodily qualities of contemporary digital cartography, Lisa Parks has suggested that GPS maps 'enable us to conceptualize more precisely how identities are constituted through material rather than figurative movements' (2001: 211). For Parks, GPS inflects our understandings of our identities by mapping not only locations but tracking bodily movements in real time. No longer are we simply 'a place on the map'; an address, city or nation – a gender, class or sexuality. Rather, with GPS and its capacity to track our actions we are a body on the map. This live representation of bodies, actions and their connection with issues of identity and self-image produces an intersection with the concept of body image and its plasticity as understood by Grosz (1994). As the body is captured by cartography and capacities for movement are recorded and fed back to the map user or FPS player this body image is presented with a representation of its range of movements.

It is noteworthy, then, that Parks has argued that 'the GPS constellation functions as a kind of orbiting mirror that pinpoints the location of the user on the planet as he/she moves through space' (2001: 210). Here Parks is suggesting that GPS makes a fundamental transition regarding analogue maps where the appearance and tracking of the map user in real time means GPS is as much a technology for visualising bodies and their movements as a traditionally cartographic form of geographic imagery. However, my reading of the mini-map differs significantly from Park's notion of 'plotting the personal', which suggests that GPS mapping is a technology

capable of transforming cartography's omniscient and god-like gaze into an 'individualized expression' of the map user's bodily movement.

The game log suggests that the mini-map – far from operating to produce a form of reflection on how the player has been positioned and conditioned within the game - instead redirects the player's sense of self more firmly within its image. In part, this is because the mini-map is a mirror of the player that updates in real time, rather than a record of movements across the maps' surface. Our capacity to reflect on where we have been and the actions we take is superseded in the mini-map's visualisation of our actions via the generation of a feedback of our current position and an affirmation of our presence within the game's spaces. By showing the player their position in relation to the game's space and failing to track where the player has been the mini-map positions itself as concerned with future acts of navigation, rather those in the game's past. This means that in competitive FPS games such as Call of Duty: Modern Warfare (2007) and its sequels and competitors, the player is unable able to reflect imaginatively upon the map as an archive of action. Rather, the player must always look forward and act, projecting the themselves into the game's three-dimensional multiplayer maps in trajectories of navigation, producing an immersive relation between cartography and the player. Immersion here is an anti-reflective state in which, as Oliver Grau has noted, the player is unable to maintain a sense of critical distance from the apparatus (2003: 13).

In a situation where the chevron or map marker moves concurrently with both the player's manual gestures and the movement of the perspective action, not reflection, is at issue. The mirror image, creates a tactile connection between the player's body in the actual and the cartographic symbol that functions as their bodily presence in the game. What we have in the mini-map is a secondary mirror of action that compliments that afforded by the twitching movements of the first-person perspective by supplying a dynamic image of the body that is otherwise fractured in its representational regime. The liveness and totality of vision of the minimap adds further weight to the speculative application of the mirror metaphor characterising the mini-map and GPS as a decisive break from analogue cartography. In terms of its relation to the cinematic image, Metz famously distinguished between the mirror and screen in *The Imaginary Signifier* as follows:

But film is also different from the natural mirror in one important respect: although everything can reflect just as well as the former in the latter, there is one thing that will never find its reflection in film, namely the spectator's body. (1982: 45)

Conversely, the FPS reflects and captures the player's body in action and in real time on the mini-map. The mini-map takes what is initially an abstraction of the player's self-image and augments this symbolic representation with a tactile cause and effect relationship with the player's body. The question then becomes whether this visual and bodily mirroring is sufficient to produce a prosthesis for the proprioceptive sense otherwise missing in the game and thus construct a cartographic body image for the player.

5.2.3 Mirror neurons and the plastic body image in videogames

Timothy Crick has suggested that the FPS provides the player with a 'body-centric gaze' (2010: 262). For Crick: 'By creating three-dimensional perspectives, a game's digital imagery suggests a corporeal presence, and through the interventions of a player, the game experiences a world from a subjective viewpoint' (2010: 262). In this reading, the visual perspective's mimicry of embodied perception endows and facilitates the player's ability to act in the game's three-dimensional multiplayer map as they would in the actual. This capacity for action is productive of a form of physical presence in the game's environment. Similarly, Alexander Galloway has suggested that the FPS's perspective and its capacity for action functions to immerse the player's sense of embodiment more profoundly within its spaces, with movement affordances that link to those of walking and looking, producing an 'intuitive sense of affective motion' (Galloway 2006: 69). In both cases, embodiment in the FPS is linked to the likeness and mobility of its active perspective to that of normative human phenomenological perception and embodiment. The idea here is that the more a game can mimic our embodied conditions of perception, the more effective and life-like its regime of embodiment will be.

In an alternative vein, Gregersen and Grodal have argued that the production of the in-game body image can be explained by the discovery of mirror neurons (2009: 68). Mirror neurons function to initiate a form of synaptic rehearsal of the exoreferentially perceived movements of other bodies, where a neurological model or performance is constructed in the brain that mirrors observed movements, paving the way for their physical realisation by the viewing subject. In other words, body images are in some sense transferrable via the act of observation

(see also Rizzolatti and Craighero 2004). This creates a zone of indistinction between observed movements and the movements of the observer's body, and begs the question as to whether our actions can be considered proper to our bodies or originate from elsewhere. If we consider Maxine Sheets-Johnstone's position on the primacy of 'creaturely movement' as a precondition for perception and the production of consciousness (2011: 113), the notion that movements originate from our ability to perceive and neurologically process those of other bodies has broad-ranging implications for concepts of personhood. However, providing definitive answers to debates about whether movement is an output of corporeality or an output of the brain are beyond the scope of my work.

Gregersen and Grodal (2009: 68-9) suggest that mirror neurons produce a kind of empathetic bodily relation between player and game in which the totality of the on-screen body or avatar is 'mirrored' in that of the player. As the player executes inputs into the controller, the actions that appear on screen provide the visual evidence for this body image, rather than the player's visual perception (or lack of) of their body in the actual. This opens the possibility for videogame players to empathise with and even feel the on-screen movements and actions of the video game image as if they were their own. In other words, the animation of the image is simulated in the brain allowing the movement of the avatar to colonise and reproduce a proprioceptive sense.

Gregersen and Grodal argue for the existence of this extension of proprioception into videogame spaces by establishing the capacity for tool use as a function of the body image's plasticity. The argument goes that the body schema/image's capacity for addition, which is key in the integration of prosthetic limbs (see also Grosz 1994: 71), enables the player to 'feel our body extending into the virtual environment' (Gregersen and Grodal 2009: 69). Here, the cause and effect connection between on-screen action and tactile inputs produces a context in which the explicit proprioceptive sense of the body, like that of a limb extending, gives rise to notion that this sense can pass in an unreduced form beyond the threshold of the screen and into the game.

Whether mirror neurons operate in the way claimed or not, Gregersen and Grodal's work is important here because it suggests that the player's sense of embodiment is dependent on the

cause and effect relations of movement the game puts into play. This frees ideas of embodiment from the limitations of the representation of the human body in the form of an avatar or the body-centric gaze of the first-person perspective. This means that videogames produce an abstraction and plasticity of the body image through their regimes of action, opening it up to myriad possible mutations (see also Ash 2010). The mini-map's policy of provoking and representing action provides a foundation for understanding the FPS player's body image as more than a visual representation but one that is, in some sense, cartographically embodied. What emerges from this decoupling of embodiment from the mimesis of the body or its conditions of perception is the possibility that the FPS can foster a sense of embodiment via its map. The mini-map seeks to provide the player with a concrete rationale of cause and effect for their actions by orienting and tracking their movements in relation to specific targets, but also by inciting types of movement that have attendant regimes of embodiment. This is in deep contrast to my analysis of the first-person perceptive, which suggested that, at least for the unhabituated player, intentional movement is always inflected by nervous gestures and affective impulses that render cause and effect relationships opaque. The question becomes one of specifically the kind of embodiment that the game produces and the constraints that it both works around and introduces to modulate the body image for its own purposes.

5.2.4 Mini-map: mirror of and for action

In the mini-map, the power of the cartographic image and GPS technology is leveraged to produce another source of identification within the game that, rather than the operating under the vulnerability of the first-person perspective discussed in the previous chapter, leverages the power of cartography to produce for the player an image of the body that is both reduced to a symbol and secure. This image is an arrow, sharpening to a point to denote the player's orientation in the game's three-dimensional multiplayer map. But this symbol also suggests a direction of travel that alludes to the gesture of aiming and firing at other players that was theorised in the previous chapter. It is a kind of cartographic avatar that has been streamlined, with its extremities amputated and its representational form simplified, reduced and clarified in two dimensions. This symbol stands in for the player's fractured three-dimensional avatar and is also a narcissistic mirror of human activity that Lev Manovich has claimed is the hallmark of regimes of human/computer interaction (2002: 235). Furthermore, this mirror does not simply

reflect action but compels it, cancelling the affirmative possibilities of GPS maps as explored by Parks above. The mini-maps enables the player to extend their vision and see themselves always. Yet it also suggests a situation where the player has been constituted as a unitary and whole body represented by a cartographic and surveillent gaze that the player mistakes as their own.

5.3 Fear-based proprioception

But no sooner have I been assured of my position than another question emerges: what do I do in order to go elsewhere? (Jacob 2006: 343)

Game Log 5.3

| Battlefield 4 (2013) | conquest mode | 'Golmund Railway' | April 2014.

During a game of *Battlefield 4*'s 'conquest' mode on its large scale multiplayer map 'Golmund Railway', I found myself sprinting across a large hilly open space. There were no enemies or objectives in sight and for a time, the rolling of my avatar's running body seemed sufficient to capture and hold my attention. The frame stayed relatively steady for a few seconds, pointing forward, rocking and wave-like, not aiming or scanning to acquire a target. A jet fighter piloted by another player – friend or foe, I couldn't tell – arced across my vision, underscoring the great scope of the map, and the extent to which my avatar had become marooned, separated from the game's objectives. I didn't bother to zoom and aim at its rapidly disappearing form.

I released the pressure on the left analogue stick of my gamepad and the frame came to a halt. I could see no players within my field of view that might prompt me to act. Stranded on this grassy hillside, the distant sounds of battle knocked and cracked but provided no indication of their direction as might my aural sense in the actual. I inhaled a deep, long breath which floated up into awareness, as if the rhythm of my breathing had been marching to some other beat up to this point. With this intake of air came a marginal awareness of the rise of my chest and shoulders, and as I exhaled my eyes travelled to the bars of light of the late afternoon sun lancing through my bedroom window. The PS4 gamepad was slightly slick, as if I had been gripping it with an intensity that I didn't perceive.

As I glanced back at the screen, now wondering whether that buzz of my phone was that message I'd been hoping for, from that person I'd been hoping for, I scanned to the mini-map fixed on the bottom left of the frame. A nest of orange chevrons clustered by a rock formation overlooking the map's southernmost objective and without looking back at the first-person perspective, I aligned my own blue chevron, me, myself and my cartographic I, towards them and pressed hard on the left analogue stick, making the frame leap forward and capture my eyes once more. This sequence occurred in a matter of seconds.



Figure 4.2: Threshold. Screen grab from Battlefield 4 (EA, 2013).

5.3.1 Mini-map: friends and foes

Despite its theorisation as an image predicated on the transcendent psyche and gaze, Jacob has also suggested cartography has the capacity to incite action (2006: 301). Flights of the imagination are inevitably joined by the movements of the body, geographic dreams made concrete in action by the power of the map. As noted above, critical GIS scholar Matthew Wilson has suggested that GPS-enabled location-based devices, like smartphones, need to be understood in terms of how they affect everyday practices of movement (2014: 299). For Wilson, applications such as Google Maps capture and immanently shape our capacities of navigation. Here, determining where we go bears on what we can do, how we think and interrupts other possible forms of movement and their potentials.

If we frame this observation in terms of the description used in my game journal of how the mini-map prompts players in the form of headings or vectors that might not be available to the first-person perspective, either because of issues of line-of-sight or the constant and reactive mobility of the gamic skin, then the manner in which the cartographic navigation shapes action becomes an important element in understanding how the game shapes movement capacities and thus the in-game body image. In the game log entry from *Battlefield 4*, the identification with the map marker discussed above is utilised to situate the player in relation to what you might call 'pings' on the mini-map. These ephemeral cartographic symbols signal the location of enemy players as they fire their weapons, before disappearing a moment later.

The ephemerality of this 'ping' and its coincidence with the enemy's gunshot means that the threatening other is in some sense ignored by the mini-map up to this potential to affectively impact the play by shooting them. The action of firing is displayed symbolically either as an orange chevron in *Battlefield 4* or as a red dot in *Call of Duty*'s recent franchise iterations, flaring into visibility like a visually rendered warning siren. From a ludic perspective, in both *Battlefield* and *Call of Duty* these cartographic alarms act to ensure that players can find each other, creating temporally and spatially dynamic choke-points of action by drawing opposing sides together, giving the opportunity to score more kills and points for one's team. The fact that the player knows that firing will cause an appearance on an enemy player's map also brackets the act of shooting with its own risks and opportunities. It means the player must move after they fire or risk becoming a static target.

Despite its capacity to reveal all enemy positions when the player activates certain in-game perks, like *Call of Duty: Modern Warfare II's* UAV (unmanned aerial vehicle), in general the minimap turns a blind eye to the presence of the enemy except when they realise their potential to eliminate a friendly player. Before this, enemies are invisible in terms of their cartographic representation. In a situation where any and every move of friend or foe is already being processed by the game, the character of the mini-map is manifested by how it chooses to visualise the space and plot the avatars within it. The mini-map is in some sense selectively blind, but this represents an on-going strategy, not a technological limitation or glitch. It is a blindness altered by moments of visibility that cannot be read solely in ludic terms, becoming what Harley has called a cartographic and political 'silence':

I am not concerned with those silences which arise from geographical ignorance, lack of data, error, the limitations of scale, deliberate design or other aspects of specification and technical limitation. I am dealing here with political silences. (2001: 85)

The fact that the map chooses under normal conditions only to register the location of enemy gunshots while simultaneously having the power to visualise the totality of the space and map it and all objects within it 'perfectly' tells us that we are dealing with a temporally dynamic cartographic regime of manipulation that fluctuates between seeing and blindness, hearing and silence. It is a kind of peepshow designed to produce trajectories of navigation, actions and gestures: 'Now you see me. Come and get me.' This cartographic play of hide and seek is political in nature because just as the player has been constantly 'mirrored' and identifies with the cursor on the mini-map, so it renders opposing players as visible only as threatening actions, replicating what Donna Haraway has called 'the dialectics of inside and outside, self and other that mark the immunitary strategies of Western biopolitics' (2001: 227). General enemy player actions remain 'unseen' and the other is rendered solely as a threat, an active weapon to be feared and neutralised.

The player is hailed by the map and urged to move towards the threat with the intent of removing it from their immediate surroundings. A gestural movement vector is projected – a course of navigation plotted – between the enemy and the player's map marker at the centre of the mini-map. Understanding these acts of navigation as incited by cartography suggests a raft of forms of mapping. The incited movement involves an act of map reading by the player. In traversing the space by following the course plotted by the mini-maps, the player is also acting as a kind of cartographer, surveying and expressing an authority over the space and its capacity to take them unawares. Simultaneously, if we consider Wilson's point above, there is also a mapping of the player taking place in which their in-game conduct and relationship to the multiplayer map and other players is being shaped. This cartographic colonisation of the player's actions augments the sub-personal and reflex-like gestures that defined the kind of actions and determining immunitary logics described in the previous chapter. Instead, the mini-map provides the player with a sense of direction and provokes the chain of actions involved in navigating, aiming and firing, which is buttressed by cartography's claims to accurately show the world how it really is.

5.3.2 Movement goals and the prosthetic proprioceptive sense

To begin to answer the question of the mini-map's capacity to construct a sense of embodiment and possible suture of the ruptured proprioceptive sense, we need to consider these issues particularly in terms of videogame spaces and navigation. Gordon Calleja has argued that:

we can understand simulated space not based solely on our avatar's spatial location, but also based on the goal-directed movement which reinforces the tangibility of our avatar by giving it a meaningful front and back, right and left. (2011: 76)

Calleja suggests that by stimulating navigational movements within and via the way that games produce spaces, videogames can orientate the body within these spaces, but also, and more tellingly, help construct and organise the body's self-relations. James Ash has also argued that videogames are 'teleplastic technologies' capable of rewiring the body's 'cardinality', noting that:

engaging with videogames encourages the production of fragmented modes of looking and gesturing in which the very body of the user becomes dissimulated into the 'space' of the image and cardinal orientation (the spatial orientation given by the structure of human bodies, rather than in relation to external points in space) becomes distributed into the in-game environment. (2010: 6)

This suggests that the character of the game's spaces and the player's potential to act within them produces a restructuring of the body, according to the character of the space. Here, the ability of the videogame player to make sense of the game relies on this transformative relationship between their body and its spaces, wherein a new body image that is coded by the videogame's spatial imaginary and dynamics of movement are realised. It is precisely the sensory map of the body's orientation and the position of its parts in relation to each other that proprioception endows the body with under normal conditions (Massumi 2002, Gallagher 2006). Calleja and Ash suggest that the way a game's space is organised and presented to the player is vital to produce what we might call an in-game proprioceptive sense — the ability to fell the ingame body and its anatomical organisation. So, the player's sense of proprioception is patched in by how we are positioned in relation to the game's 'goals'. Here, what you might call a player's sense of direction is manipulated by the game to form a prosthetic sense of proprioceptive embodiment.

If the body's construction is defined by the way the game visualises its spaces as certain goal-based landscapes, then this act of construction must be read specifically in line with an analysis of the values of this act of visualisation. Bernadette Flynn has argued that our embodied practices of navigation within video games are 'not a culturally neutral or benign position... [but one that] extends ideologies of spatial conquest and frontier myths.... The colonialist play of "who gets to go where" and "who is destroyed in the process"' (2004: 57). So, acts of navigation do not only produce a sense of the body's organisation, but do so via actions that are political in nature. If videogame space and our actions within it are politically or ideologically inflected, then the effects of these movements on the remapping of our sense of our bodies must also be thus inflected. The question that this raises is specifically how the mini-map produces actions and acts of navigation and whether the attainment of ludic goals as argued by Calleja is sufficient to provide the motivating force for the manipulation of the player's body image to take place.

In the game journal that opened this section, the combination of the scale of the 'Golmund Railway' multiplayer map, the specific conditions of my avatar's movement, and the first-person perspective pushed my embodiment within the game to the threshold of total disengagement. First, the reflex action of breathing, and then other distractions brought me back to and awareness of my body within the actual. At this moment, the body image and its attendant schema that the game had constructed for me started to dissipate and other abstract social concerns began to crystallise.

Looking at the mini-map presented an image of my avatar shorn of projecting extremities reaching untidily into space and reconfigured in the form of a cartographic marker, pin or chevron. Pointing forward, whatever direction that might be within the game's fully rendered multiplayer map, is a cartographic representation of the player that is led by its line-of-sight: a seeing, shooting and mapping body image. However, more than this mirror image, the mini-map functions to re-situate the player by supplying an image of their bodily position and orientation in specific relation to threatening targets, cartographic 'pings', and produces a vector of movement calculated by aiming the point of the chevron towards this goal. In my game log this

trajectory was then cross-referenced with movements of the first-person perspective to navigate towards it

These actions operate to animate the cartographic representation of the body image, not only by making it move across the map, but also coordinating these acts of navigation with the player's gestures. If we take Calleja's point regarding the way game goals supply the in-game body with a tangible sense of itself, then we can start to understand the fleeting appearance of enemies on the mini-map as endowing the player with both a dynamism and a sense of direction that operates as a form of visual prosthesis for proprioception. This altered and reduced proprioceptive sense is not simply a given at the point of movement. It comes into being over the course of travel towards a game goal which also doubles as a threating other. As the player moves towards this goal and its production of a sense of cardinality for their body, the player becomes like the chevron itself - a targeting and hunting figure, an anatomy of eyes, hand and gun constructed not just by the representation of the player on the map, but by the actions and sensations it incites. If we recap Gallagher's claim that proprioception bears on consciousness, our sense of place and relationships with others noted above, the stakes of this prosthetic proprioceptive sense for the player are raised quite considerably, impacting upon and reorganizing the body's conduct.

However, in the case of the prosthetic reduction and augmentation of proprioception that the mini-map fosters, the relationship with the other is primary to its constitution and therefore the constitution of the player's sense of themselves. Sheets-Johnstone claims that 'We come straightaway moving into the world; we are precisely not *stillborn*' (2011: 118). In the case of the FPS and its mini-map, this constitution of the self is incited by movements produced by vectors of navigation. The idea that the primacy of movement is in some sense hijacked by the cartographic image and its ability to visualise the presence of enemy players suggests a usurpation of proprioception by the visual sense. The proxy that the game generates for the proprioceptive sense is a body image that is fired in the crucible of the presence and danger posed by an image of the other. Ultimately, it is a sense of embodiment realised when the other is perceived, recognised as a threat and sought out for destruction. This means that the production of an in-game 'I' in a bodily sense only takes shape in a moment when it is animated by the desire to destroy 'them' via the power of the cartographic image.

5.3.3 Embodied by fear

I would like to argue that ludic 'goal' and its effect in providing the player's in-game corpus with a prosthesis for the proprioceptive sense is superseded in competitive FPS games by the power of fear, specifically the fear of enemy players. Enemies represent not just a threat to whether the player wins or loses a game of team deathmatch in *Call of Duty* or conquest in *Battlefield 4*, but also to the player's sense of individual and unified corpus as constructed by the mini-map. This is a more broad-ranging danger than that supplied by ludus, where a fracture in the game's unified but reduced body, and between the player and the apparatus is posed by being 'killed' in the game.

As noted above, enemy players are signalled on the mini-map for a moment coinciding with action of firing. Here, the enemy and the specific threat that they pose is made ephemerally visible and mapped as a knowable object. Freud suggests that 'fear requires a definite object of which to be afraid' (2010: 13). And more, that fear is always 'essentially directed toward an object' (Freud 1920, XXV. 'Fear and Anxiety', para.7). Fear fundamentally differs from both fright – understood by Freud as produced by shocking surprises – and the 'free-floating' future-oriented state of anxiety in that it is always tied to knowledge. It is exactly the capacity to take the player's fright response, which is composed by a combination of the unpredictability of enemy players, the lack of habituation to the game's spaces and the player's lack of motor skills in aiming and firing, and give it a concrete target that the mini-map achieves. The mini-map plots the position of enemy players and leverages the spatial authority of cartography to bring the threat of the enemy which led to gestural crisis into knowledge.

By making dangers known, the mini-map becalms the twitches and jerks of the player's actions and quite literally gives a sense of direction to gestures by supplying concrete goals and projecting the player towards the object of their fear. This is a secondary motivating force for acts of navigation that is separate from the reactive first-person perspective, allowing the player to see beyond it with a form of cartographic vision. The mini-map generates a doubling of ludic goal and object of fear for the player to pursue. The stakes of this for embodiment are that the map acts to reassemble and clarify the actions of the twitching, frightened and disorienting gestures of the gamic skin with apparent certainties. By providing the player with something to

fear, the mini-map produces goal-based gestures that operate to supply a prosthesis for proprioception and embodiment. This cartographically endowed body image is fired towards the source of the player's fear in what is now revealed to be a defensive reaction. The wound that the mini-map in some sense heals in the loss of the proprioceptive sense from the game and the missing avatar that is the cypher for this loss is healed by its capacity to construct a prosthesis of proprioception and sense of embodiment with actions motivated by fear.

In his lectures held during the First World War, Freud, in line with the general approach of the psychoanalytic method, attempts to understand fear via an analysis of its emergence in childhood.

The little child is primarily afraid of strange people...But the child does not fear these strange persons because he attributes evil intentions to them, because he compares his weakness with their strength or recognizes them as dangerous to his existence, his safety and freedom from pain...The child is afraid of a stranger because he is adjusted to a dear, beloved person, his mother. His disappointment and longing are transformed into fear, his unemployed libido, which cannot yet be held suspended, is diverted by fear. It cannot be termed a coincidence that this situation, which is a typical example of all childish fear, is a repetition of the first condition of fear during birth, viz., separation from the mother. (1920: XXV. 'Fear and Anxiety', para.30)

For Freud, the fear of the stranger, or the other, is not specifically defined by the idea that the child has been in some way targeted. Neither does the state of fear suggest that danger is more removed and takes shape as the general threat posed by those in a position of physical authority. Rather, the child's fear in Freud's explanation is rooted in the original trauma of separation from the mother that occurs in childbirth, which the existence of the stranger cannot help but signify. This may seem a rather distant concern from the current argument. Indeed, in a situation where the FPS player is made to feel affectively vulnerable and the danger of being shot within game's representational regime is quite real, tallying the FPS with Freud's conceptualisation of fear presents something of a puzzle.

However, the mini-map continuously provides the player with the location of the firing action, but does not map the specific nature of these actions or give a concrete indication as to their intended target. This means that while the player can perceive a threatening action, this action is not identified as being targeted at them. There is an absence of information relating to 'evil

intention,' or the 'strength' of the other. What I think Freud's analysis of fear and its origins suggests for the relationship between the mini-map and the player is a more deep-seated fear of separation from the mechanism that has given the player an identifiable corporeal form via an immersion in its spaces and the endowment of the capacity to act. The FPS is a situation where the apparatus takes on an almost paradoxical relationship to the constitution of the player's sense of embodiment in which it both fosters a sense of 'I' via the production of a corporeal unity and simultaneously motivates and constitutes this bodily 'I' via the fear of separation posed by the cartographic revelation of the presence of enemy players.

Here, it could be argued that because the FPS apparatus 'gives birth' to the player's body in the sense of its reconfiguration and subjectification, the *dispositif* stands in for the figure of the mother in some sense. The threat of enemy players and the attendant fear that is produced is therefore not simply being shot or failing to win the game, but a separation from the game's regime of embodiment and its attendant production of psychic and corporeal unity. The minimap enables the player to transcend the affectively shocked and reactive state in which the body first encounters the game, composing a body, supplying a sense of direction and orientation. The fear-based construction of the player's in-game corpus, signals a deeper transition from a desubjectified and reactive immune image, to something more resembling a subject whose affective relationship with the game has been qualified as an emotional one.

But why does the game take this double role as mother and representing the object of the player's fear? Freud suggests that 'The awakening of real fear is the result of education.' (1920: XXV. 'Fear and Anxiety', para. 31) So, the game's cartography lifts the veil of the player's spatial ignorance by presenting them with objects to fear that threaten our immersion and embodiment. However, it is the very act of moving, navigating and acting that this fear incites that perversely ensures the continuation of the game's corporeal regime and a sense of a unified FPS body image. Here, it appears that fear of a fracture from the game's unified body image motivates the construction of the player's corpus, but also encourages them to neutralise this fear.

5.3.4 The mini-map and immunity as a self-protective system

To summarise, the mini-map produces an image of the player's body and positionality, with which they identify, and places this image in a context in which there is a cartographically visualised dynamic of 'us' and 'them'. This establishes the other as a ludic goal and trajectory of navigation, using the fear of the threatening invader on the player's mini-map as an incitement to animate the player and endow them with a prosthetic proprioceptive sense otherwise missing in the game. The healing of the proprioceptive wound reorganises the player's in-game body as an arrow, shooting and neutralising the feared object that has acted to compose it. What we have here is the healing of the excluded proprioceptive sense – a reconstitution and reduction of the body – as a self-defensive corpus motivated by fear.

This process endows the player with a sense of mastery over the game's threatening contingencies by affording a sense of control over its spaces, achieved at the same instant the player is constituted as a functioning bodily unity. Thus, an apparent doubling of mastery over the game and a form of active self-realisation of the corpus is achieved. However, the role of the apparatus here is so key in instigating and governing the player's in-game body as a reaction that it lends itself to be read in political terms. As in the previous chapter, the interpretive category that seems to lend itself to this reading is that of Esposito's concept of biopolitical immunity.

To recap, in his discussion of the biomedical roots of the concept of immunity, Esposito argues that:

Life combats what negates it through immunitary protection, not a strategy of frontal opposition but of outflanking and neutralizing. Evil must be thwarted, but not by keeping it at a distance form one's borders; rather, it is included inside them. The dialectical figure that thus emerges is that of exclusionary inclusion or exclusion by inclusion. (2011: 8)

When the mini-map visualises the enemy player on its cartographic surface solely via the image of an aggressive action, it characterises the other purely in threatening terms. This characterisation of the dangerous outsider is situated within the territory of the player's cartographically augmented vision, in the interior of a zone of vulnerability (for player and enemy alike) demarcated by the borders of the mini-map. By projecting the player towards this peril and signalling its destruction as the game's primary goal, the mini-map plays a role in

constructing player's sense of a proprioceptive body — a corporeal self is animated and comes to life. Crucially, the player's embodiment and body image is not simply defined against this threat, but takes its shape and character from it. In the act of navigation that composes the body and in the final act of taking aim and firing at the enemy, the neutralisation of the danger that the enemy poses is achieved. However, because of the internalization and mirroring of the behavior of this threat, the player's continued embodiment in the game and the enemy become in some sense homogenous. In this way, the negation of the enemy is not simply achieved by keeping it at a distance — although the act of tracking an enemy and firing at it may literally achieve this in terms of the game's regime of representation — there is an inclusion of the threat in the sense that it is mirrored in the player's behavior.

Where this mode of negation (or exclusion) via inclusion operated in the previous chapter as a literal visual inclusion of the enemy within the internality of the frame and the crosshairs as the player's locus of identification, here the inclusion is abstracted in visual terms on the map. However, more important than this cartographic visualisation is the way the nature and behaviour of the threat is included within the bodily sense and the activity of the player. Here, we have a close parallel to the biomedical figure of immunity where the immune system preserves a kind of memory of that which it negates to prevent future infection by the same pathogen. In a similar manner, the more the player can include what threatens them, the greater the level of protection afforded to their in-game sense of self. This tendency for the protective system to include what is being excluded as part of a self-protective reaction means that it is compromised and even constituted by the other, that is, negatively. Esposito states that:

Far from being limited to the role performed by the law of immunizing the community from the violence that threatens it, violence actually comes to characterize immunitary procedures themselves: instead of being eliminated, violence is incorporated into the apparatus it is intended to repress – once again, violently. (2011: 10)

The immunitary apparatus of the FPS constitutes the player's sense of self by encouraging them to defend the in-game body using the very means that threaten it. Moreover, the violence here is not purely representational in the sense that we shoot an enemy player that we take to be a threat because of their capacity to shoot us. Nor is the violence simply coded in competitive ludic terms as a gaining of advantage in the race to secure the most points for the player's team,

which would represent a form of abstract domination according to the game's rules. Rather, the threat here is to the continued constitution of the player by the apparatus, which would be interrupted were the player to be shot within the game's representational regime. The better the player is at obeying the mini-map's headings and immunising themselves from the threat of the other via an act of inclusionary exclusion, the more thoroughly the player is enveloped into the negative immunitary mode of becoming that the game puts into play. What the mini-map signals is the broader way the player is asked to defensively react to set themselves against (and model themselves upon) enemy players. The player's body image – their prosthetic proprioceptive sense – is therefore forged and maintained by an immunitary procedure incited by the mini-map.

The irony for the player is that these threats are key to their constitution — and thus the figure they are attempting to protect — meaning that player and the source of their fear enter a zone of indistinction. Without threats, without fear and its resulting actions, the player's sense of self is threatened. Violence protects against the greater violence of an interruption of the player's in-game body image and the dissolution of the player as an individual constituted both against and patterned after the enemy player. Here, the ludic advantage of shooting the enemy and the cartographic impulse to control the spatial and temporal contingencies that the mini-map affords takes on a deeper meaning: that of the production, constitution and maintenance of an individual body as a figure in constant conflict with those around it.

Moreover, when the player opens fire, they are rendered as that same red dot (*Call of Duty*) or orange chevron (*Battlefield*) on the mini-map of the enemy. Therefore, the process of inclusionary exclusion and immunitary becoming in the game's visuality remains unseen by the player in terms of a change in the mini-map. However, in a final irony, enemies can detect this self-protective reaction as it becomes visible on their mini-map as an orange chevron or fleeting red dot. In neutralising the threat to their corporeal involvement with the apparatus, this same apparatus cartographically reimagines the player in the image of the danger they have just negated. Immunitary player and enemy coalesce and are cartographically indiscernible in their differences.

The key point of distinction between this expression or articulation of immunity and that discussed in the previous chapter is that the immune reaction is dependent on the player's knowledge. Here, the player's actions are still strictly reactions and gestures but they are not twitches, jerks or tics. The mini-map does not instigate a gestural crisis, but a more seductive and authoritative activity that endows the player with a sense of mastery as they negate the other that threatens them via projects of navigation. It is in this way that the mini-map's authority regarding representing the game's landscape and tracking enemies supplies the player with a cartographic truth that tames unruly gestures and shocking affective surprises, and composes and qualifies the body with fear-based movements.

To take this analysis to its final stage, when a player navigates towards an enemy and brings their avatar or avatars into the first-person perspective, the opportunity arises for the threat that they pose to be negated with the act of visual inclusionary exclusion achieved by the act of aiming and firing discussed in the previous chapter. Now, the unhabituated player is effectively 'reset' in their quest to achieve security within the game because what I have termed the mapped out-of-field ensures a continual vulnerability to the unpredictable actions of enemy players that keeps the image twitching. However, the mini-map constantly displays threats beyond the purview of the first-person perspective. By referring to the mini-map, this newly composed player can identify new targets in this out-of-field space and transition from one act of negation to another. This coordination between mini-map and first-person perspective establishes a mutually supporting rhythm of mapping, navigation and gestural movements of the perspective meaning that the immunitary nature of the game takes on a more functional and pervasive character vis-à-vis the previous analysis. Here, acts of aiming and firing are not only augmented by what James Ash (2013) has called the 'somatic attunements' achieved via the accumulation of experience but they are also guided and shaped cartographically.

The mini-map bridges the gap between a gestural crisis and the object of my final chapter, the player who maps the game's contingent spaces, enemies and their own gestures via the repetition of future-oriented and anxious behaviours. In the current argument, the player is immunised by the mini-map from both the danger to their continued constitution by the game posed by enemy avatars and their gestural crisis. In effect, this mutation of the immunitary nature of the game not only composes a functional prosthetic for the proprioceptive sense

through fear and an inclusionary exclusion, but reinforces this constitution of the player's life with a sense of spatial, ludic and personal mastery. However, this is a false mastery in which the player has been encouraged to constitute themselves purely in the game's terms as an aggressive-defensive actor. Therein lies the rub of the game's constitution of the player's body image: an imagined (in terms of identification) and sensed (in terms of embodiment) self; an 'I' that appears as an expression of the individual's authority, but is really a psychological and corporeal genuflection before the immunitary logic of the game.

This production of a misrecognised figure of internal (corporeal) and external (of the other) mastery is only achievable when the player successfully negates the enemy by adopting a sensemaking trajectory of navigation towards the object of their fear. By motivating the player to make sense of the game and construct an in-game corpus for themselves, we can see how the interpretive category of immunity functions here in a radically different manner to that discussed in the previous chapter. The mini-map enables the player to transformatively know themselves via the game, to supersede their panicked and frightened gestures and achieve a functional unity with the apparatus. However, I would like to argue that these singular projects of navigation and the cartographically reduced form of embodiment they assemble are by no means the only product of the immunitary dynamic the game puts into play. As the mini-map in both Call of Duty and Battlefield often reveals many threats to the player, providing them with multiple simultaneous enemy locations that cannot possibly all be navigated towards, mapped and mastered, a confusion of the cartographic body image takes hold. It is in these situations where the corpus is dragged this way and that by the mini-map and the consequences for the player's prosthetic proprioceptive sense that I would like to turn to in the final section of this chapter.

5.4 Auto-immunity: Cartographic compulsion

Game Log 5.4

Battlefield 4 (2013) | Conquest mode | 'Floodzone' | May 2014.



Figure 4: Cartographic gaming in crisis? Screen grab from Battlefield 4 (EA, 2013).

I push the perspective through a flooded alleyway between two ruined Chinese tenement blocks in the *Flood Zone* map of *Battlefield 4*, constantly checking the mini-map in the corner of the frame with silent saccades of my eye. I know this environment, this 'map'; each sodden alley and bright rooftop. What draws my eyes to the mini-map, times out of reckoning, are the orange arrows that appear suddenly, plotted, and then fade from the cartographic surface. Each pulse is a fleeting signal revealing the location of enemy players in relation to the orientation and position of my avatar, which is the axis upon which the map is fixed.

I make my way up to the roof of a tenement; a choke point where multiple points of entry create a storm of enemies and allies with no recognizable frontline. The space of the conflict splays and pulses like the legs of a spider pinned the ground, reaching and flinching here and there. As I emerge into the crossfire, I check the mini-map and see pulses erupting out of its totalized and authorized geography all around me – they seem so close – but in my scanning of the environment with the first-person frame, I cannot seem to acquire a target. Temporally ephemeral points cluster around my position on the map, creating multiple possible vectors of movement that exert an almost physical pull on my avatar that threatens to rip it in multiple directions. I sense an intensification of my grip on the game pad. I am not thinking. I just want to go, to seek and destroy, but where, and in which direction?

Battlefield 4's 'conquest' mode's primary ludic objective is to take and hold certain locations highlighted on the game's mini-map. However, in the game log above, the threatening cartographic 'pings' – whose role in both Battlefield 4 and the Call of Duty franchise (since the release of Modern Warfare in 2007) has been read as producing conscious and controlling acts of navigation that remap and reduce the player's proprioceptive sense – begin to coincide with and override one another. As one object of fear appears on the map and an attendant trajectory of movement is catalysed, another appears. The cartographic reproduction of the proprioceptive sense via the game's threatening goals and the immunitary procedure of becoming through the negation of the other multiplies at a rate commensurate with the presence of enemies on the mini-map.

I describe above how the power of the map to visualise threats takes the player's newly authoritative (albeit fear-induced) gestures and sense of embodiment and starts to erode the distinction between front and back, the body's reduced and altered proprioceptive sense of itself. In a situation of high contingency signalled by the presence of multiple enemy players, the mini-map seems to operate by providing a kind of chaotic cartography of my embodiment in relation to multiple and disorienting threats. Fear, as the primary motivation for the player's actions transitions into something like panic as the connection between the constitution of the player's sense of embodiment and the ludic goal of eliminating enemy players intensifies to the point where the dissolution of the player's body image and newly minted status as a subject capable of intentional actions of gestural navigation begin to disintegrate.

In schematising my position in relation with multiple and temporally fleeting trajectories of movement, what I have described previously in this study as the function of the mini-map to orientate, organise and animate the player's in-game proprioceptive sense takes a radical turn. Fear-based trajectories all 'fire' within a very short duration, producing virtual pathways of action that extend in multiple courses across the mini-map. Fear multiplies in space and time, surrounding the player. In turn, each pulse on the mini-map providing the body with a possible sense of itself that would lend it a meaningful organisation enters into conflict with the other. The prosthetic sense of embodiment fractures as a unity, but also extends across the mini-map because of the multiplication of navigation vectors that this situation generates. This raises issues of the distinction between the player and the game's cartographic representation of space.

James Ash has approached the player's embodied relationship with videogame space via Roger Caillois' (1984) concept of *teleplasty* developed in his essay 'Mimicry and Legendary Psychasthenia.' Caillois's essay boils down to an attempt to explain how mental illnesses like schizophrenia – understood as a breakdown in the distinction between personality and environment – represent a more general tendency in the natural world for adaptive mimicry wherein any benefit of camouflage (in insects, for example) is subordinated to a more pervasive and degenerative strategy of homomorphism between organism and environment. Caillois calls this tendency towards a mimicry of the environment a 'depersonalization by assimilation into space...accompanied by a decline in the feeling of personality and life' (1984: 30, his emphasis). In the case of mental illness, as the sufferer becomes less distinct from space, the status of personhood slips through their grasp in a desubjectifying pathology. Ash has claimed there is a teleplastic relationship between the player's sense of embodiment and the videogame, citing Caillois' claim that:

ones sense of personality (and awareness of the distinction between organism and environment and of the awareness between the mind and a specific point in space) is quickly undermined. (Caillois 2003: 100, cited in Ash 2010: 28)

I have argued that a mutually constitutive relationship operates between the mini-maps' ability to produce a sense of proprioceptive bodily organisation and movement that operates specifically to generate and shape, rather than dissolve the player's sense of self in terms of Esposito's interpretive category of biopolitical immunity. Indeed, the root of Caillois' claim that the distinction between the organism and the environment is a necessary predicate for 'personality' and normative human mental function cuts against the general understanding of the mutually constitutive relationship between humans and technology adopted by this thesis (see Stiegler 1998 and Rotman 2008). However, the intensification of the technologically realised immunitary dynamic that produces the player's sense of embodiment described above appears to lead to a further mutation. Here, the constitution of the player's body image becomes confused and the sense of self that the game has constructed is threatened. This does not occur because the space devours the player destroying the distinction between inside and outside, but because of the player's need to 'devour' the space and its threatening occupants. The proliferation of this need to include led to a kind of automatism in my analysis, a compulsive desire to take multiple actions at once wherein the sense of 'personality' that the game fosters via the cartographically realised body image and the multiplayer map begin to lose their point of

distinction.

I would like to speculate that this confusion of the body image does not function to fragment and negate our sense of embodiment. Rather, that movement vectors are produced by a proliferation of spatial threats that seem to radiate from the player's central position on the map. This occurs because the mini-map maintains a stable image of our bodily positioning, meaning there is an extension of the player's body image across the entire representative area of its live cartography. In this situation, the scope of the mini-map becomes in some way indistinguishable from the player's body image. This extension does not mean that I am proposing a more encompassing regime of embodiment that can reproduce the totality of our corporeal experience under non-gamic conditions. Instead, I read this radical confusion and extension of the body image as functioning to position both the representational area of the mini-map and the game space as a kind of bodily interior into which all goals and threats have been included as a precursor to their exclusion and neutralisation.

In this extension of the player's sense of their interior across their immediate surroundings, the player's 'personality' as a sense of psychological and corporeal unity is decomposed and acts of navigation are fractured. The intensification of stimuli results in an image closer to that theorised in the previous chapter: a reflex-driven corpus that reacts in an affective manner without thought to the threatening environment and one that is ultimately unproductive in terms of achieving the ludic goals of eliminating enemy players and thus dominating the multiplayer map. This situation represents the capacity for abstraction inherent in the mutable and mediated concept of body image and the capacities of the body more generally in its constitution by technology, the media and politics (see Parikka 2012, Benjamin 1999 and Crary 1992). However, in the transition from a body image that is founded both as a self-image and as a sensed corpus upon acts of intentional self-defense to one that is distributed within its environment and acts without thought, we re-enter the horizon of the desubjectifying media apparatuses of late modernity as argued by Agamben (2009).

When the body image is realised as a cartographic surface and the actions that were designed to protect it lead to it becoming indistinct from this map, the FPS player re-enters the sphere of the double negation that marks Esposito's immunitary conceptualisation of biopolitics as explored in *Immunitas*. Here, the desire for self-protection becomes the primary threat to the individual – in

terms of bodies or collectives conceived as unities. In Esposito's work, the affirmative first negation of immunity provides a grounding for the negative constitution of the subject as a defensive reaction against the other. In this way, what is proper to one person or body is secured from the outside. However, the 'end-game' of this process is a form of auto-immunity in which the desire for protection becomes so ingrained and compulsive that there is a corrosive effect on the individual's ability to act out of any other desire. This means that, in effect, the individual is critically undermined or lost in the attempt to secure themselves, just as the spatial authority of cartography intensifies. However, this regression into the frightened and chaotic gestural figure closer to that proposed in the previous chapter's analysis of the unhabituated player's relationship to the first-person perspective is by no means an inevitability. Instead, the player in this situation can fall back upon their experience to engage in actions that are designed to limit the explosion of fear-based actions the map provides.

5.5 Conclusion: body image, plastic, cartographic, immune

I opened this chapter with a quote from Maurice Merleau-Ponty's *Eye and Mind*, which envisaged the nightmare situation of an embodied presence that had been excluded from sensing its own corporeal form. What I have suggested in this chapter is that the FPS image both produces this nightmare and then works towards compensating for its effects by harnessing the bodily power of cartography, particularly the GPS-like in-game mini-map. By making the map 'personal' and then using this form of identification to situate the player within a visual context of threats and engaging them in intense fear, rather than goal-oriented actions, I have argued that the FPS can provide a proxy for the orienting capacities of the proprioceptive sense. This representation and sense of the body has been framed as a cartographically rendered body image, constructed as a self-defensive, aggressive and fearful corpus that functions to block or suspend our awareness of the way our non-gamic bodily sensitivities have been excluded.

We have seen how contested conceptions of embodiment and its relation to space, orientation and acts of navigation within videogame theory provide many of the pathways for understanding both the scope and the limits to the body's capture within the FPS's reality. The connection between the presence of visual goals, their capacity to incite movement and the constitutive relationship between proprioception, action and the birth of a body as articulated

by Maxine Sheets-Johnstone and Sean Gallagher has been crucial. However, only a conceptualisation of body image understood as totally detached from the anatomical determinants of an essentialised body, while at the same stroke being linked in its formation to regimes of power could suggest the radical alterations in the body image of the player that I believe occur within the FPS. Elizabeth Grosz's conceptualisation of body image, its psychological realisation and the relationship of this process to mechanisms of power has been vital in this respect.

With the conditions for theorising a totally mutable FPS body image in place, the mini-map as both an engine producing movements and the sole representation of the player's presence in the game has been analysed in the form of close observations drawn out by a dialogue with Conley's thinking on cinematic maps, critical work on analogue cartography and the stakes of more recent developments in discourses surrounding GIS and GPS technology. I have sought to understand how the map behaves to compose the body via suggested trajectories of navigation that are tied not to landmarks on the landscape, but to the mobile position of the player's ingame enemies. Here, I returned to Freud's characterisation of emotional responses to perceived danger developed in *Beyond the Pleasure Principle* to characterise these movements as intentional trajectories of navigation motivated by the fear of a separation from the apparatuses capacity to immerse the player.

It was this assemblage of the player's sense of their in-game body (a kind of prosthetic form of proprioception) through fear that led me to reconnect with Esposito's concept of biopolitical immunity. The idea that the body, identity and gestures of the player are constituted as a self-defensive reaction against the other that takes shape as an inclusionary exclusion suggested a semi-affirmative reading of immunity. Here, immunitary procedures operate via their capacity to constitute the relationship between the individual and the exterior as one of negation (a form of negative becoming) which mapped the player's sense of self. In this gesture the player is both secured and limited in their potentials, but there is not the reduction to a kind of reactive biological automaton suggested in my previous chapter.

Finally, I speculated about how the mini-map could, in certain situations, act to dissolve the player's new body, making it in some sense commensurate with the game's cartography and

inciting a compulsive desire to consume the other, a bodily reactivity suggestive of a process of desubjectification and negation of the individual subject. In this reading, there was something of a return to the crisis produced when the unhabituated player is first exposed to the first-person perspective. However, this dissolution of the in-game body and its attendant identification with its mapped self was not positioned as an inevitable end-point. Rather, this possible fracture of the player from the game demands the player adapt in new ways. And it is this process of adaptation that I consider in my final analytical chapter where the player makes a final transition from fearful to anxious. It is the behaviour of this 'master' player that I now turn to.

Respawn: Life, Death and Immunitary Mastery



Figure 6.1: http://www.bbc.co.uk/news/magazine-29535343 (Casciani 2014)

6.0 Introduction

The meme emblazoned with the words "THIS IS OUR CALL OF DUTY AND WE RESPAWN IN JANNAH" (Figure 6.1) entered circulation in late 2014. It has been the subject of articles published both in videogame websites such as *Kokatu* and in the mainstream online output of organisations such as The New Yorker and the BBC. The text explicitly references both the *Call of Duty* franchise of competitive multiplayer FPS videogames that have been a primary object of this study and the respawn mechanism that is a central focus of this chapter. The media narrative around this image has tended to focus on the perceived power of this evocation of *Call*

of Duty and its treatment of death as a tool for IS (Islamic State) propaganda, and as a recruitment tool promoting acts of terrorism and violence (Casciani 2014).

However, I foreground this image at the outset of this chapter to make an alternative reading. In this thesis, I make no explicit comment on the current conflicts raging across Syria, Iraq and Libya. Nor is any connection between the notion of 'respawn' and theologically inflected discussions on martyrdom suggested. Crucially, my reading of the importance of this image is not an attempt to suggest that the representation of violence in FPS videogames can be used to explain violent behaviour, as Simon Penny has suggested, by claiming that the form 'conditions the young in exactly the same thing as the military does: they hardwire young people for shooting at humans' (2006: 76). Finally, I do not attempt to extend this model into the historical, ideological, theological and geopolitical complexities of the War on Terror. Rather, my point here is to begin with the way the game mechanic of the respawn mechanism has migrated from competitive multiplayer FPS. For the slogan to have meaning, an experience of the repetition of the life—death cycle in *Call of Duty* is essential. Respawn as a structure that mediates between life and death is 'out there', in the 'real' world.

This chapter follows the immunitary becoming of the FPS player from one cast adrift on the currents of affective shocks, through the process of bodily reconfiguration by cartography, towards the production of a form of apparent mastery over a game like *Call of Duty: Advanced Warfare* (2015). Here, in this final chapter, I seek to capture the moment when it appears the tables are turned, when the player has (or seems to have) gained a measure of control over the apparatus. At the same moment, the spectre of death enters my thinking for the first time. I ask: how is mastery obtained? And what role does the relationship between life and death have on this process? In the answers to these connected questions, I seek to understand the kind of individual subject that has been mastered or diagrammed by this process. Let's start with a beginning that's an ending, that's a beginning, that's an ending, that's a...

Game Log 6.1

Call of Duty: Advanced Warfare (2015) | Team Deathmatch | Solar | February 2015

The first-person perspective was splattered red and the image cut to a cinematic shot of my avatar holding his neck. The figure fell to the luminous ground in my first death of that game of team death match on the 'Solar' map of *Call of Duty: Advanced Warfare*. I glimpsed three enemy players in the background. Another cut, and I saw myself through my killer's point of view. She landed behind me, aimed down the sights and punctured my avatar's back, in an uncoiling chain of bullets. I pressed a button on my pad and cut away from both the image, irritated — I didn't want to die like that again.

I respawned into the north of the map and visualised the group continuing their trajectory, scouring the zigzagging corridor of squat buildings that sprout along Solar's west side. I projected their movements forward, weighing different pathways, feeling their threat branch out into the map. Potential movements multiplied.

I pressed the "X" button and "exo-jumped" – a mechanic introduced in *Advanced Warfare* that allows players to vault across the tops of buildings – to take position on the corner of the nearest hut. I double tapped crouch and lowered the frame until my avatar was prone, belly to the roof. My aim was trained on an empty patch of ground. I've made these movements before – sometimes here, but also on different maps. My actions repeated, as if unreeled from a spool of celluloid.

The three players filed into the killing zone, as predicted, and I fired, hearing the bloodless pops that signalled I'd found my mark. "+100" pulsed in the centre of the frame twice in quick succession — a double kill. Although my aim has improved, these kills are not the product of my ability to guide the crosshairs, zeroing-in with a new economy and precision. Instead, these enemies drifted into my field of fire and the in-field of gamic skin, like fish swept by a tide of habit into the net of my reticule.

But the third member of the informal squad had escaped the strafing fire. My gun ran empty. I hit the reload button, sensing my vulnerability but feeling only the smallest surge of tension. I tried to follow them with my crosshairs, but my prone position limited my aim's movement. The HUD shakes, tinted red again. I tense my legs, causing my body to straighten slightly and push a breath through my nostrils. I relax, roll my shoulders and limber up for the next respawn.

Forms of repetition multiply in my game log. The meta-structure of life, death and respawn ensures we live and die again and again. It is an overarching repetitive cycle that is established and processed by the game, outside of the scope of gestural feedback between player and screen. What Väliaho calls the 'bodily performance' (2014: 30) of the player, their gestures, whether flinching or commanding, occur in the spaces and durations between the respawn mechanism and must be read with this mechanism in mind. From the moment the player is killed, the game engages in the production of a contesting visual regime defined by the puzzling return of the formal structure of cinematic editing wherein the player becomes a spectator in a series of shots of their death. Once this sequence is endured, the game respawns the player back into its arena and they gesture again. But death almost inevitably waits. I analyse the implications of this transition between life and death, between the game and the remediated visual regime of the cinema, in this chapter.

The game also impels the repetition of movements and gestures between the respawn mechanism, which bookends every in-game life and death. Experienced players will engage in certain gestures and attendant on-screen actions that are streamlined and repeated: the act of aiming down the sights and shooting, well-travelled trajectories of travel. In this chapter, I follow Väliaho's assertion that these gestures can be read as 'Fast-paced rhythmic entanglements [that] draw on the brain's processing of the visual field through the affective anticipation of threats and the production of motor responses to pre-empt those threats' (Väliaho 2014: 41). However, where I depart from Väliaho – and from James Ash's (2013) idea that the player's habituation entails an opening of the body and a sensitisation of the affective register – is to suggest that, in time, the player's gestures acquire movement characteristics that regulate the game's affective power, keeping the player in a state of physical constancy. Here, reactive tics become strategic gestures that attempt to exert a predictive and controlling force on the game. Paradoxically, these apparently authoritative gestures also lend themselves to being read as a form of total obedience to the apparatus. The player has learned to play in the way that the game thinks best. Between the cinematic replay of the respawn mechanism and the repetitions of the master player's gestures, sensations are also repeated. In this chapter I ask what kind of modulation of the human 'sensorium' is taking place via the player's tendency to repeat and the game's repetitive representations of death.

6.1 Taking directions from Freud: anxiety and repetition

If the founding premise of this chapter is that the respawn mechanism and the player's habituation are characterised by their repetitive nature, then conceptualisations of repetition seem an obvious starting point. In *Beyond the Pleasure Principle*, Freud responds to the challenge to his model of the 'mental apparatus' posed by the repetitive behaviour displayed in cases of what he calls 'war neurosis'. The symptoms described by Freud have been categorised in contemporary psychology as an anxiety disorder under the initialisation PTSD (post-traumatic stress disorder) by the Diagnostic and Statistical Manual of Mental Disorders IV (First and Tasman 2004: 424). PTSD is a syndrome whose initial classification coincided with the mechanisation of war on a global scale in World War I. As an important caveat, this chapter does not take Freud's conceptualisation of repetition and its connection to trauma and anxiety as a clinical fact. Rather, I use Freud's ideas as a kind of thought experiment, mapping them against the repetitions of the FPS and its player to speculate on their significance for a radically different context.

Walter Benjamin understood modernity's production of mechanised conflict as giving war a new sensorial intensity, 'a field of force of destructive torrents and explosions' (1999: 84) that engulfed a body made 'tiny' by their scale. The sense here is that the affective quality of the First World War was an extreme manifestation of the modulation of the body occurring at what Foucault understood as modernity's threshold, that moment when power sought to invest itself in the corpus via disciplinary (Foucault 1991) and biopolitical (1998) regimes of calculation and control. In mechanised conflict, this body was used to defend the national corpus with weapons that opened it to new, previously unimagined injuries. Paralleling this changing relation of intensity and scale between the body and its environment, Freud (2010) encountered and addressed the emerging mental traumas associated with this new context of intensifying sensations. Both Freud and Benjamin were responding to changes brought about by new relations between the body, technology and power. As both a new perceptual and bodily mode of stimulation that engages the player in repetitive movements and experiences, Call of Duty; Advanced Warfare and its ilk can be considered as not only an interactive experience that produces shocks and a gestural crisis, but also as an apparatus that diagrams the player by encouraging an adaptation to the initial trauma of playing. However, it is the specific role that Freud assigns repetition this is of interest here.

In the case of the war neurotic, Freud observed a tendency to repeat repressed traumatic experiences in the form of reccurring dreams that forced his patients to re-live the original event. This repetition of trauma in the dream state puzzled Freud, as it appeared to undermine the tendency towards pleasure that was a foundation of his conception of the basic operation of the mental apparatus he developed in *The Interpretation of Dreams* (1900 [2014]). Up to this point, dreams were understood as a relief from 'waking life, with its trials and joys, its pleasures and pains, is never repeated' (2014, 'The Relation of the Dream to the Waking State', para. 1). This repetition challenged the role of dreams and their 'wish-fulfilling tenor' suggesting an attendant problem for their significance as sites of reading for the psychoanalytic method. Freud's approach in *Beyond the Pleasure Principle* takes shape as an attempt to characterise this enigmatic repetition, and respond to the challenge it posed to his work by placing it 'safely' within his existing, but expanded conceptual framework. He reflects on this phenomenon with references to both the tendency for repetition in children's games and in his analytical practice. However, my focus here will be on its origin: the war neurotic.

Freud's concept of the pleasure principle is not aimed at classifying the quality of individual sensations and emotions. For Freud, '... if the work of the mental apparatus is directed towards keeping the quantity of excitation low, then anything calculated to increase that quantity is bound to be adverse to the functioning of the apparatus, that is, as unpleasurable' (Freud 2010: 5). The pleasure principle works to minimise dramatic swings in excitation and stimulation (along with the reality principle as a means of deferring gratification). Stimulation is cast as a threat and tied to a normative concept of mental health that privileges stability. Thus, the pleasure principle is not involved in the drive to seek sensations with a certain quality. Rather, it takes shape as a principle aimed at mastering alterations in the intensity of stimulus. It operates to provide constancy, to regulate.

The repetitive respawn structure of the military FPS experience identified in the introduction to this chapter suggests that not only is the game involved in exposing the player to potentially traumatic stimuli, but that it also modulates the affective power of these sensations by subjecting the player to them again and again. Freud's understanding of repetition in relation to the pleasure principle provides a possible model for explaining how the player processes an

initial sensory shock and what kind of image and affective state this process produces at its endpoint. Freud locates the production of the repetitive traumatic neurosis explicitly in situations
giving rise to the sudden perception of 'a risk to life' (2010: 11). An experience is undergone that
makes death suddenly immanent to the perception of the subject. However, rather than this
unexpected threat being made good or dissipating, it can endure because of the subject's
survival. To explain the initial cause of this trauma, Freud produces a loose categorisation of fear
that arranges fright as part of a three-tiered schema. Each aspect is arranged according to its
ability to anticipate and know the object of fear:

Anxiety describes a particular state of expecting the danger or preparing for it, even though it may be an unknown one. Fear requires a definite object of which to be afraid. Fright, however, is the name we give to the state a person gets into when he has run into danger without being prepared for it. It emphasizes the factor of surprise. (Freud 2010: 12)

For Freud, the war neurotic experiences the full fright of death as a surprise or shock. As per this definition, anxiety offers protection from threats because a constant expectation of danger cancels the ability of a situation to take the subject by surprise and cause an affectively intense fright response. In this context, anxiety's position as a pathology recedes and is aligned with the pleasure principle's drive towards keeping the mental apparatus in a state of constancy. Taking the form of a beneficial adaptation, anxiety keeps a soldier in a warzone in a constant state of future-oriented fear. An anxious soldier is shielded from fright and its potential to erupt in traumatic repetitions later in life. It is noteworthy, then, that in their short history of the FPS, Bryce and Rutter have argued that its most popular early game, id's *Doom* (1993), is characterised by the production of anxiety in the player (2002: 68) with the same observation made in Väliaho 's more recent work (2014).

Regarding the cypher of the repetitive dreams of the war neurotic, Freud concludes that the repetition aims at altering the relationship between the time of the event and its effects by repeating it: 'These dreams are endeavouring to master the stimulus retrospectively, by developing the anxiety whose omission was the cause of the traumatic neurosis' (Freud 2010: 51). Because the pleasure principle has already failed to bind the affective cathexis or intensity of the initial event, these sensations must be repeated and the binding process re-enacted. However, because the intensity of the stimulus has already penetrated the ego and entered the

unconscious, it must be processed from the inside of the mental apparatus out. For Freud, only through repeating the trauma can the initial shock be tamed and trained into anxiety. In this sense, repetition allows the event to return in a manner that, bit by bit, brings it back under the controlling mechanism of the pleasure principle. This does not strictly suggest that the intensity of the repeated sensation has altered during its serialisation. By repeating, the subject becomes attuned to this stimulus. In this newly trained mental posture, the potential for future stimulus to shock and produce fright is nullified as the experience becomes part of the 'natural' topography of the subject's mental life. In this way, the production of anxiety allows the pleasure principle to come back into play, albeit revealed as a defensive mechanism that militates against future affective shocks.

Key here is the fact that the mental apparatus does not function to solidify the reality that the threat is no longer present. Rather, repetition extends the danger by inducing a total vigilance for the moment of its expected return. In this way, the mental apparatus repeats to pre-empt a repetition of a passed event. Shock is processed not by rendering it less threatening, but by making its threatening sensations repeat and come to define the subject's behaviours. As a healing process, repetition multiplies the original injury and functions to reproduce danger at every turn. Where the war neurotic has been healed, and has in some sense mastered the initial fright, they have also become ever more injured and mastered by it. They emerge from this process changed, anxious. Furthermore, a new lens through which to encounter the world is carried into the future, a future that is now the subject of an attempt to master its potentials, dangerous or not. This is the player that I am seeking here: not the shocked, reactive gestures of the immune image mapped in Chapter 4, but a habituated body that emerges from the process of repetition: an anxious player whose gestures operate to pre-empt and master the game's capacity to take them by surprise.

6.2.1 Respawn: the 'death cam'

Spawn: (of a fish, frog, mollusk, etc.) release or deposit eggs. *Chiefly derogatory* (of a person) produce (offspring).

Oxford English Dictionary (Soans and Stevenson 2006)

In the *Call of Duty* series, the way the game visualises death and pushes the player across the life—death boundary by 'respawning' them into the game space represents a repeating, concrete and immobile visual structure around which the flow of contingent gestures is guided and shaped. Respawn fills the temporal gap between life and death, and this section suggests that it also motivates the player to live, die and live again within a single play-through of a multiplayer match, making gameplay cyclical, repetitive. I have included the dictionary definition of the word 'spawn' above to emphasise the way that this word usually casts spawning as a reproductive process: birthing base forms of life that lack the assumed autonomy of the individual human subject. In terms of human reproduction, the association is of the production of a degenerate and debased form of life. Any play-through of a round of *Call of Duty* or other major FPS franchises such as *Battlefield*'s multiplayer modes will be characterised by multiple respawns.

From 2003's *Call of Duty,* the moment of the player's death is visualised by the appropriation of the cinematic image, a convention that might be termed the 'death cam'. Here, the first-person perspective is interrupted by a shot, a kind of ephemeral cut-scene with the player's avatar centred in the frame with the point of view oriented in the direction of the enemy responsible. You can see this demonstrated in the form of the enemy just visible in the background of Figure 6.2 below. This radical alteration of the medium from a gestural and active gamic skin to an ingame camera is only visible on screen for a matter of seconds. Blink and you'll miss it.

The framing of this shot is determined by the architecture of the multiplayer map. If the player is in a claustrophobic environment, the camera will frame the avatar in something like a close-up. Alternatively, if the player is in an open part of the map, the image will default to a medium shot encompassing most of the avatar's body. It is as if the embodied presence of the player has been catapulted out of the avatar by the concussive force of the virtual bullet and has been absorbed and reconfigured by the cinematic image, which operates as a kind of fall-back or safety net. There is a layering of a continuity of movement between the enemy's bullet, the player's avatar and the change in perspective from first person to third person. And it is as if with this concussive force there is also a medial movement of the player from a tactile gestural regime to a spectatorial position.

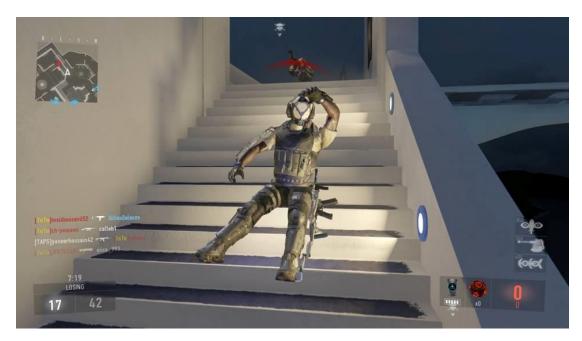


Figure 6.2: Death cam. Screen grab from Call of Duty, Advanced Warfare (Activision, 2015)

Bryce and Rutter have noted that the disruption in the player's gestural involvement that occurs when the player is killed or 'fragged' while playing the FPS has the potential to produce a rupture between player and game (2002: 75). In turn, Richard Rouse has argued that the use of cinematic cut-scenes represents a jarring 'out-of-game' device that disrupts the 'interactive' experience and represents an 'unnatural' mingling of properly distinct mediums (2001: 210–11). In the case of the 'death cam', both potentially disruptive elements combine simultaneously as the visual evidence of the player's death is rendered as a cut-scene. However, I would like to suggest that rather than an alienating and unnatural rupture in the player's experience in which the in-game death is rendered even more disturbing, the player is in some sense salved via a relatively smooth segue into the formal language and spectatorial relations of a rival medium in the cinema, which has tended, as King and Krzywinska have argued, to occupy a higher position in the hierarchy of media taste formations (2002: 150).

Rouse (2001) has suggested that the foregrounding of the cinematic potential of the videogame is evidence of 'movie envy' on the part of developers. The consensus of videogame scholars (Bryce and Rutter 2002, Galloway 2006, Rouse 2001) has tended to problematise the use of cinematic techniques. However, rather than problematising what is essentially an ephemeral 'cut-scene', I would like to argue that, following King and Krzywinska (2002), the presence of

filmic visuality forces an encounter with the concept of remediation and a more complex dialectic between the FPS and the cinema. Famously, for Bolter and Grusin:

a medium is that which remediates. It is that which appropriates the techniques, forms and social significance of other media and attempts to rival and refashion them in the name of the real...A medium in our culture can never operate in isolation because it must enter into relationships of respect and rivalry with other media. (Bolter and Grusin 1999: 65)

If we follow this reasoning, the choice of a cut to a graphical rendering of a cinematic image suggests that *Call of Duty* appropriates film's visual regime to render it in some sense real. Here, the cinema's claim to the real – as a medium that still trades on its dubious status as an indexical form, (see Bazin 1967: 14) – appears to buttress the reality of the player's death. At the same time, the game's capacity to appropriate and replicate cinematic techniques 'live' within its fully rendered space-time represents an authoritative gesture in respect to its mastery of the filmic medium. It not only deploys the cinema for its own claim to the real in respect to the player's death, but suggests these techniques exist totally within its capacities for generating spaces and temporalities. In this way, the manner of the handling of the player's death articulates the tension between respect and rivalry inherent in remediation.

In rendering the player's death via the visual language of film, the actions occurring within what Aarseth (1999) has called an ergodic medium are realised via the imposition of a repeating and predictable semiotic sequence. This non-ergodic take on an ergodic medium has the potential to bracket the player's experience and their death with a certain inevitability antithetical to the videogame. Within this puzzling situation, the potential for a traumatic rupture in the player's relationship within the FPS as an apparatus appears to be brought to the threshold. The possibility for a new shock specifically relating to an undercutting of the player's implicit understanding of the ontological difference between film and the videogame.

This is not a bodily shock of infections of the gamic skin, but the shock of an accelerated exposure to differing forms of mediatic address. As a mechanism bracketing the meta-structure of the FPS's life—death repetition, this rapid remediation and its implications for what is now a player-spectator must instead function to usher the player back into the game by motivating them to continue playing. This is because any potential rupture caused by a spike in stimulation

would appear to work against the feedback loop's motivating force, which is to capture the player in a repetitive immersive cycle.

When a player is killed and inputs cease to result in on-screen movements, the feedback loop between body and screen is broken. The image is no longer Väliaho's bodily performance (2014) of the game's spatial, temporal and gestural affordances, nor does it constitute a form of two-way tactile involvement between player and screen (Lahti 2003). The player's 'death' and inability to engage in actions drains the image of its gestural quality via the cancelling of the capacity to act, creating a fracture or lack that demands a presence. This presence is supplied by the bodily relationship between the fleeting appearance of the death cam's character as a cinematic image and the player's somatic sensitivities – in other words as a cinematic body (see Shaviro 1993, Elsaesser and Hagener 2010, Marks 2000, Barker 2009, among others). If the player is expelled from the gestural gamic skin of the HUD at the moment of their death, they aren't rendered insensate or numb, nor are they alienated by the cinematic image as Galloway suggests (2006). Rather, the player is enveloped in the cinema's bodily power and an alteration in their desire to control the image is a consequence of this transition. As Steven Shaviro has argued:

I do not actively interpret or seek to control; I just sit back and blissfully consume. I passively enjoy or endure certain rhythms of duration: the passage of time, with its play of retention and anticipation, and with its relentless accumulation, transformation, and destruction of sounds and images. There is no structuring lack, no primordial division, but a continuity between physiological and affective responses of my own body and the appearances and disappearances, the mutations and perdurances, of the bodies and images on screen. (1993: 255—6)

Shaviro's suggestion that there is a fundamental and pleasurable embodied passivity in which the cinematic image inscribes the surges of affect that cross from the screen into the body is a valuable insight when attempting to understand the operation of the 'death cam' and its relationship with the state of gestural activity that precedes it. This remediated image casts the player in the role of a passive and embodied spectator at the same moment that they are first presented with an image of the avatar as a representation of their embodied presence in the game. The locus of the player's activity is thereby rendered an image which, while full of affective charge, produces a form of pleasurable passivity. This about-face means that the

'death cam' is a paradoxical experience of corporeal connection with the image and the imposition of passivity that produces a kind of indifference in the player in respect to the now empty and bloodless digital marionette of the avatar.

James Williams (2003) has noted that, for Deleuze (see 2004: 138), death has a double aspect: 'an actual death, in the ceasing of the heartbeat or of activity in the brain, but also a series of virtual deaths, the way in which our becomings lead us to change irrevocably' (2003: 10). The player in some sense adds a third death, a death of the avatar in a system of representation that is anything but virtual in Deleuze's terms. In this way, the player dies twice; once in representational content of the game, and once in the virtual transition from player to spectator: from active to passive as a form of change. Here, however, one death in the form of a mediological transition functions to cancel the trauma of another. It is as if two minuses have been added to equal a plus.

More broadly, the cinema becomes the mode of choice for making the player's death real, but denudes it of the urge to act. Thus, the gestural first-person perspective is aligned in a binary relation as the active holder of life. It is as if the game is remediating the cinema to ensure that the shock of death is translated into a corporeal regime that crosses into the body without resistance and is thus less shocking to the player, but also on some level there is an attendant meaning being generated that seeks to militate against the power of the cinema as a mode capable of engaging us actively in lively movements. This remediation therefore functions as both a valorisation of the cinema's claims to the real and an oblique critique of its gestural passivity. However, with the shock of death seemingly becalmed by this appropriation of the cinema's somatic regime, the question arises as to how *Call of Duty* reaches out to the player and motivates them to once more feed their gestures into its spaces.

6.2.2 Killcam: empathy and repulsion

- For in that sleep of death, what dreams may come,

Hamlet

After the player witnesses the moment of death remediated by a cinematic shot, the image cuts to a replay of the same incident from the perspective of the enemy responsible; this image is called the 'killcam' (Figure 6.3). Like the opening shot of John Carpenter's *Halloween* (1978), the player is confronted with a single continuous subjective shot that stalks and ultimately kills the avatar, which like the semi-naked girl brushing her hair in the mirror, — is both mastered by the in-game camera and is powerless to resist its violence. In the cinema, this dynamic works because the victim's surprise underscores the fact that the camera is not just standing in for the phenomenological vision of the killer Michael Myers, but also as that of the spectator in the auditorium.

Jennifer Barker has argued that the movements of the camera, far from articulating a gaze-based form of visual identification and a sense of 'being there,' instead generate an empathetic corporeal relationship akin to 'feeling there' (2009: 75). The surprise and attendant scream of the victim in *Halloween* is a reaction to the now revealed presence of Myers within the film's diegetic world, but simultaneously involves the spectator who, if we follow Barker, is also corporeally present. The scream not only produces an affect because of its shocking intensity, but also because it reveals the way in which the bodily presence of the spectator has been empathetically stalking in Myers' shoes – wearing his skin just as he wears a mask. Barker describes a relationship between the movement of the camera, the action on screen and the spectator's musculature that is particularly apt for understanding the subjective shot of the killcam:

When the film "ducks" or "swerves" or "races" or "stalks" its subjects or "crashes" into something, we can relate having performed many of these basic gestures ourselves in our own way. Our responses to the film's body are a case of kinaesthetic memory. (2009: 75)

Legible as a 'corporealisation' of Metz's concept of 'primary identification' (1982), Barker's understanding of the spectator's bodily empathy between their gestures and the camera's movements is particularly interesting when considering *Call of Duty*'s killcam. Intriguingly, Barker's suggestion of a connection between the movements of the film camera and the gestures of the spectator is collapsed to a much greater degree in the FPS, where the gestures of all players are rendered as movements of a standardised point of view. If we follow Barker, the

killcam creates an empathetic connection between the enemy's recorded gestures and those previously performed by the player that undercuts the distinction between the two. Of course, this replay depicts the exact event that led to the player's death and the necessity for this cinematic interlude. In this way, the game has not only altered its visual regime for a second time, but has segued back to an image that represents a duration that began before the player's death and created an empathetic bodily replay of a past event. Outside of considerations of the specificity of the image's perspective, we already have the establishment of a form of repetition.

On one level, we can align this image with the repetitive and traumatic dreams experienced by the war neurotic as described by Freud. The image of a threat to our in-game life (endowed by the player's capacity to move) is returned to us, as if from our unconscious. However, this 'glitch' in the linear temporality of our gestural experience of the FPS and the production of a kinaesthetic empathy between the player and the enemy responsible for their death immediately alludes to the cancelling of gestural action, which requires the 'liveness' of the game's fully rendered environment as a precondition. The fact that the player both recognises and feels the image as a replay of past gestures and those of others solidifies its status as being dead to the possibility of intervention, just as it shows the player their death. In this way, it is both familiar in the sense that it replays an experience and alien in the sense that it does so from the perspective of the other – with which the player corporeally empathises but over which they have no control.



Figure 6.3: Killcam. Screen grab from Call of Duty: Advanced Warfare (Activision, 2015)

Alongside this sits the fact that the enemy HUD looks almost indistinguishable from the player's gamic skin. The experience of 'feeling there' within your killer's gamic skin means that the killcam can be understood as an example of what Galloway calls the subjective shot's capacity to articulate a predatory vision: 'a sadistic way of seeing characterised by aggressive action, forward movement, and onscreen violence' (Galloway 2006: 50). However, in this, there is not simply a sadistic gaze but an empathetic sadistic connection of feeling between killer and victim.

However, with the killcam, the player's empathy with the image is further complicated by the presence of their avatar, a representation of their gestural identification with the game. This limits the image's potential to engage the player in the dubious pleasure of empathetic empowerment with their enemy's gestures because the player is inescapably the victim within the image's representational content. The player is left with a situation that appears on multiple levels to underscore an almost total lack of control over the image by making them empathetically feel their own death. The empathetic connection between this cinematic sequence and the viewer is actualised for the very reason of rendering it monstrous.

Galloway characterises the relationship between film and the FPS in a sweeping statement that it represents 'an impotent form of camcorder playback sans joystick, which is of course the best

the cinema can muster' (2006: 53). Far from being confronted with an impotent image, the player's empathy with the gestures of the enemy render it highly potent. It is the player, not the the image, that is rendered powerless. If we take the imposition of this impotency as a given for a moment, this begs the question as to why Call of Duty would seek to remediate and impose upon the player the very cinematic restrictions that Galloway claims the FPS transcends. However, the image is not only a killcam in the sense that the player is forced to witness and empathetically feel an in-game death from the perspective of their killer, but also in the sense that the player can 'kill' the camera and the cinematic spectatorial mode it represents by initiating the respawn themselves and returning to the game world. In this return to the game's dominant gestural point of view, we can avenge ourselves on the game's capacity to wrest control from us as much as on the enemy player responsible for our death. By representing death via a remediation of the deathly medium of the cinema, the FPS identifies itself with action and life. Here, respawning and the capacity for action in the FPS comes to mean life within a new 'default image regime', as Thomas Elsaesser put it (2013: 238), one that has articulated its 'superiority' to the cinema. We are respawned back into the multiplayer map as the arena of action and into the mobile embodied first-person perspective that has set itself up in opposition to the cinema as an ideal – as a new and 'improved' medium.

In this the establishment of a rapport between death and the cinema, the FPS seeks to cloak its own political and affective regime via the creation of a kind of set of binaries with the dominant moving image medium of the twentieth century: life/death, mastery/subordination, subject/object, and so on. The key binary here, though, is future/past. The animated but mummified faces of Brando, Hepburn and Peck turn film into a kind of uncanny mausoleum, per Laura Mulvey, for example (2006: 17–18). By adopting and appropriating the cinematic form, the FPS tells us that this mode of image making not only captures the past but in some sense slaves us to our mortality by confirming the immutability of a linear time that guarantees death. At a wider media-historical remove, cinema itself has been called-out as a kind of zombie medium, notably in British director Peter Greenaway's comment that it is like a dead dinosaur where 'the brain dies but it takes maybe several weeks before that message gets to the tail' (Greenaway n.d.). This all suggests that film is being used by *Call of Duty* in a multi-layered manner. Film functions at once as a means of establishing a claim to the reality of the player's

death, while simultaneously distancing and distinguishing itself from a previous form branded as both deathly and dead.

The implication of this remediation of the cinema is that the ability of the game to repeat the life—death cycle ensures that the player always has a future in within its reality. The player quite literally always has a life after death. The FPS appears to seek to emphasise the idea that the player's actions are yet to happen and have not been determined. As Jesper Juul claimed, 'game time is now' (2001). The irony of this apparent use of the cinema as a kind of dumping ground for the representation and experience of death in *Call of Duty* is that every life, each respawn, carries with it the almost certain and swift return to this deathly state. This shades each life within death's shadow, just as it does the FPS within the cinematic image. Each in-game life drives inexorably towards death, towards a state of gestural impotence as its perverse goal. Therefore, when the player respawns into the game, this desire, this drive towards mastering death, becomes aligned with the capacity to act. I would like to suggests that the respawn mechanism energises this desire to repeat by showing the player that they have not yet died in their own way.

6.2.3 Killcam versus death drive

In a context where another death is almost certain, our respawn back into the game takes shape as an opportunity to readdress this lack of control, to take revenge. The almost inevitable fact of another death means that the player's actions begin to take shape not as an attempt to survive the entire round, but over how they are killed. The idea that survival is the player's ultimate ingame goal (Väliaho 2014) starts to seem more and more like an assumption that merits interrogation. This is where Freud's work in *Beyond the Pleasure Principle* offers another insight into the respawn mechanic in the form of its central conceptual contribution – the death drive:

If we are to take it as truth that knows no exception that everything dies for *internal* reasons – becomes inorganic once again – then we shall be compelled to say that "the goal of life is death" and, looking backward, that what was inanimate existed before what was living. (Freud 2010: 63–64)

The death drive takes shape in Freud's thought as a means of explaining why the mental apparatus would exhibit a compulsion towards repeating unpleasurable experiences and

behaviours. Freud's answer is that all living organisms are balanced between a drive towards stimulation and reproduction (Eros) and a death drive (Thanatos) that seeks a return to the original 'quiescent' state of inorganic matter. Later in *Civilization and its Discontents*, Freud (1929 [1962]) expanded the concept to encompass destructive and aggressive urges. The death drive seeks to return the organism to a state of total constancy in respect to its capacity to be stimulated. Freud moves towards a theory that encloses repetition of which the retrospective repetitive dreams of the war neurotic are an example within a kind of master repetition, which is the return to an inorganic or a deathly state.

Indeed, for Freud 'The pleasure principle seems actually to serve the death instincts' (2010: 110). Thus, the control over pleasure becomes connected to an in-built desire to die, because each functions to move the subject towards a closing to the potential for excessive stimulation. This regulating impulse is future-oriented as any system of control over affectivity is one of avoidance. These principles exert a controlling force over the behaviour of the subject, so are also united in their apparent shared desire to exercise a control over the future. Whether seeking to regulate sensations of pleasure, protect against fright by anticipating or repeating threats, or attempting to control the manner of the transition into the state of death, Freud's understanding of the value of repetition is its capacity to overcome the trauma of the past by projecting it into the future.

Key for my work in explaining why the killcam appears such a perverse image is the distinction made between death *per se* and death as a drive that originates within the organism as 'immanent' to it. While, for Freud, life might strive to repeat its original inorganic state, it does so only on its own terms as the summation of its internal development. So here, death is not positioned against life, but as one of its fundamental regulating forces and motivating goals. Freud's statement that 'the organism wishes to die in its own fashion' (Freud 2010: 65) resonates with how the killcam not only highlights the fact of the player's 'death', but also ensures a confrontation with an image of this transition to an inactive state that ensures an awareness of a lack of control in its actualisation. This means that the killcam works against the death drive by signalling the fact that the player's death emerged from an external source. Of course, the fact that this moment visualises the player's 'death' in the game's representative system is helpful in cementing this connection. Additionally, the transition from a gestural and

tactile involvement to a spectatorial repetition of the event that is fixed in its representational form stimulates or shocks the player – an affective state that emphasises a loss of control that must now be avoided. In other words, the player's death and the imposition of a cinematic image immune to the player's gestures both signal a loss of control and the production of stimulating affective intensities. Of course, the quickest way to re-establish at least the possibility of a gestural control in this situation is to respawn back into the game and transition from a cinematic body back into a gamic one.

The remediated cinematic image of the player's death also has a certain pedagogy. Because it produces not only the visual experience of the player's death, but also an empathetic connection with the enemy's killing gestures; the image rehearses alternative actions that might be adopted in future. Like the war neurotic, the outcome of this repetition of the moment of death is an impulse to grip the possibilities of the game ever more tightly by re-entering its reality and exercising greater control over it. Where for Freud the war neurotic compulsively repeats the traumatic experience to acquire a level of anxiety that will better predict and control the moment of death, the killcam acts as both an affective provocation to re-enter the gestural gamic skin and serves a pedagogic function in empathetically animating future actions that could have avoided this uncomfortable loss of control and its bodily charge. Thus, the player becomes anxious to avoid being affectively mastered and must engage in certain intentional and planned gestural strategies and tactics to enable them to reverse this situation. This mastery cannot guarantee a death-free engagement with the game, just as the anxiety of the war neurotic cannot forever forestall death. Rather, it enables the player to exert an authority over the manner of their death by engaging in repetitive and regulated movements that attempt to exert a predictive force over the game.

6.3 Aim and fire, aim and fire; from iron collars to iron spaces

My argument thus far has suggested that the respawn mechanic operates to provoke the player into associating their gestural interface with the game with life, and the cinematic mode of engagement with death. More than this, the player seems driven to play again – to repeat the experience – by the creation of an urge to gain greater control over the manner of their death as a reaction to being confronted with an image that underscores their lack of authority over it.

There is something perverse, if not paradoxical happening here, where the alignment of player

activity within the game with life is ultimately framed by the death drive, an urge to control potential – to die in your own way.

Despite the suggested influence of the death drive, changes in player behaviour in the FPS can also be approached as a form of learning process. Repetition has a pedagogic value: practice makes perfect in common-sense terms. This chapter is about how the player adapts or is adapted by their interaction with the game to cope with its potential expose them to a reactive state of shock. To approach this question in a manner that is not over-determined by my reading of the death drive, an alternative conceptualisation of repetition that foregrounds learning and growth is required. If in a broad sense, Freud's understanding of repetition takes shape as a desire for stability and ultimately a return to the fixity of death, then a conceptualisation of repetition that attempts to frame it as a generator of difference offers the potential to exert a form of productive conceptual friction. Deleuze's work in *Difference and Repetition* (2004) provides exactly this opportunity.

However, before I can test Deleuzian repetition against my analysis of FPS gameplay, his reading of repetition and its relation to the changing psychological state of the war neurotic in *Beyond the Pleasure Principle* bears discussing. A small detour, but one that will help elucidate the overlap as well as the points of fracture between these two conceptions of repetition. Broadly, Deleuze attempts to incorporate Freudian repetition within his emerging framework angled towards the production of difference – that is, becoming. For Deleuze, the war neurotic is compelled to repeat because the affectivity of the initial traumatic experience exists in an unbound virtual state. When it is repeated in the dream, this allows the subject to sense and process its actualisation in their body. Key here, is the way the repetition modulates the sensation of trauma. For Deleuze:

Freud noted from the beginning that in order to stop repeating it was not enough to remember in the abstract (without affect), nor to form a concept in general, nor even to represent the repressed event in all its particularity: it was necessary to seek out the memory there where it was, to install oneself directly in the past in order to establish a living connection between knowledge and the resistance, the representation and the blockage. (Deleuze 2004: 21)

In Deleuze's interpretation, for the traumatic experience of the repetition to act as a healing process, it cannot be abstracted and must retain its physical potency. This means that this bodily experience cannot be subjected to representation; rather, it must be felt. In Deleuze's terms a reduction of the affectivity of the event into a representation would render it a generality devoid of its unique bodily charge and would suggest that it was both equivalent and exchangeable with other experiences. In this way, the thing that is being repeated is not a memory in the psychoanalytical sense. A memory is that which has been subjected to representation to render its connectivity fixed. This is where Deleuze departs quite radically from Freud. The aim of the analyst is to induce the subject to remember the event as 'something belonging to the past.' (Freud 2010: 24). In this way, analysis is the process of managing repressed affective intensities that exist in the virtual (the unconscious in Freud's terms) into fixed conscious memories. This process neutralises the trauma's bodily charge by translating it into language. Psychoanalysis is, after all, an outgrowth of the "talking cure" initially developed by Breuer's famous treatment of Anna O, in what Lacan later described in his characteristic linguistic terms as 'The more Anna provided signifiers, the more she chattered on, the better it went' (1994: 157).

For Deleuze, the object is not to parse and translate the repressed intensity into memory, but to modify its affective quality via repetition. The difference here is between the power of representation and that of affect – a fundamental distinction within Deleuze's entire philosophy. In Deleuze's understanding, when the cache of sensorial stimulus erupts from the unrepresentable oubliette of the unconscious, its potential or virtual existence is actualised. The event quite literally happens again in its first, or virtual, stage because it has not been abstracted, conceptualised or represented by the ego. However, because the virtual affectivity of the experience is actualised, it emerges as subject to new conditions in the physical world. This means that the full affective power of the traumatic event inevitably plays out differently when it repeats in a traumatic dream because the actual condition of the experience has changed.

This is where the reciprocity of the actual and the virtual becomes so essential to the operation of repetition. Each actualised repetition feeds back into the make-up of the event embalmed in the unconscious – it is added to the affective virtual 'memory', which is changed as a result.

Each repetition is therefore the sum of all previous virtual repetitions, tested against new conditions in the actual. In this case, the traumatic affectivity loses some of its potency with each repetition, which acquires a new affective quality because there is no actualisation of a 'risk to life'. For Deleuze, this is not the process of the fact of the risk of death being brought into conscious knowledge. This process has already manifestly failed, hence the need for the traumatic experience to repeat. Instead, to heal the traumatic wound, the body processes trauma via its own sensitivities. It learns via its capacity to attune its sensorial register over each repetition, over time.

My issue with this interpretation of Freud is that it marginalises the relationship between repetition and the death drive, the primary function of which is to return to an original state of inorganic matter. Under the influence of the death drive, the organism repeats to be an anxious, certain and unchanging thing, not to become or generate difference. In effect, compulsive repetition in Freud's work is an effort to exert a control over reality's capacity to supply new and intense stimuli. However, for Deleuze, repetition serves to heal the initial trauma by adding new and less threatening sensations to the original experience. One philosophy is of addition and the other of subtraction. Of course, Deleuze's work does not hinge on its connection with Freud (until *Anti-Oedipus* (2003), at any rate). However, we can see how repetition operates in Deleuze's thinking through bodily affect and its modulation rather than through conscious memory and representation.

Each time I play a game of team deathmatch in *Call of Duty*, I aim and fire hundreds of times. The animation of raising of my avatar's gun, zooming in and firing remains invariant, a bare repetition of fixed lines of computer code. However, the specifics of how this animation moves within the game's space do not repeat in exactitude. These actions appear, as Väliaho has suggested, as '...random, which is to say unprogrammed interactions between players in the gaming environment' (2014: 32). This capacity for randomness appears to unshackle the player's movements in the game from the context of bare repetition in which they operate.

Consequently, the possibility arises that these gestures can be productive of difference, expressing growth and change in the body of the player. However, a closer alignment with Deleuze's model is required to put this judgment under the required critical pressure. With this

in mind, let's consider two ways in which each aim and fire resists reading as a return of what Deleuze calls the 'Same' – that is, a bare repetition.

When playing the FPS, although the player repeats certain gestures, these movements cannot be situated as an exact repetition of the actions that precede it. This would render the gesture a total generality and block its possibility for success. Put simply, the player would miss their shot because the previous repetition was copied exactly, but actualised in a changing context. Such a repetition of gesture would block the potential for players to adapt both their play and bodily relationship to the game over time. It would make learning impossible. Nor can we understand the gesture of aiming and firing as a replay of a particular previous gesture of the same type that is consciously selected from an instantly accessible corporeal library held in the player's muscle memory. This would entail a deliberateness and recall impossible in the context of such a swift action, and would also encounter the same problem of generality described in the previous example.

Crucially in this regard, the virtual series or affective imprint of repetitions do not need to be thought, conceptualised or represented to be actualised. In fact, Deleuze's model emphasises the necessity of forgetting, noting that 'It is in repetition and by repetition that Forgetting becomes a positive power' (2004: 9). When we aim and fire, we do so without a conscious awareness of its relation to previous actions of the same type in what Deleuze calls 'passive synthesis'. For Deleuze, habit emerges as a generator of difference wherein each previous repetition is passively synthesised in its actualisation. Just as in his consideration of Freud's example, the passivity of repetition is vital in ensuring that each action is not over-determined by a conscious representation of its virtual content.

In this way, we do not need to position each aim and fire as the product of a rationalisation of memory that distils into knowledge. Rather, if we follow Deleuze, each aim and fire sequence emerges out of seemingly forgotten affective experiences and sense impressions that exceed recall. In each case described above, the repetition would entail an actualisation of the 'Same' virtual action and its associated affectivity, which would render it impotent. As we have seen in our discussion of Deleuze's interaction with Freud, each repetition is bound to change because it guarantees the reciprocal production of difference in both the virtual and the actual realities.

So, repetition even within the fully programmed environment of the FPS's actionable space, is not a simple replay of a past event.

When the player rounds a corner, aims down the sights and fires, they act out a relationship to their previous affective experience of this gesture. It emerges partly as a response to a preexisting series or set of similar actions in the virtual world. However, in any game of team deathmatch, the action of aiming and firing is actualised in unique conditions each time; in new multiplayer maps, changing player and enemy positions within these spaces, the tense pull of a neck ache, or the sound of rain pattering on a window. These conditions and their affective intensities shape the form of the gesture in the game. So, just as this repetition should not be understood as the return of the 'same', it is also not a mechanism totally unmoored from its connection to previous actions and events. This would mean that a player was effectively firing for the first time, every time with the on-screen data and untrained reactions being totally relied upon to produce a positive outcome. Effectively, seeing the player's gestures as a simple reaction to on-screen conditions rather than as a form of repetition that would prevent the player from learning and refining their actions over time. Of course, it is exactly the relative uniqueness of the gesture of aiming and firing for the novice player that I mapped in Chapter 4. However, for the purposes of attempting to understand how the player comes to master the game, it should be acknowledged that aiming and firing in the FPS is neither a total novelty, nor is it a bare repetition.

The unique affective intensity of this gestural actualisation makes an impression, which is added to all previous associated sensations in the virtual series. In this way, the actual is virtualised, just as the virtual was actualised in the first instance. This reciprocal relationship ensures that the virtual cannot be regarded a closed series (or discrete set) of repetitions. Each aim and fire sequence is therefore composed of a dynamic interchange between the essential uniqueness of both the virtual and the actual realities. Therefore, Deleuzian repetition appears to be an apt mechanism for describing the complexity of the way that the player shapes their gestures over time in the game, which ensures the alteration of the body's sensitivities play a central role in this process. In effect, Deleuzian repetition allows us to understand the learning process as one of embodiment, as a bodily performance and becoming.

This production of 'difference in itself' explains why, for Deleuze, repetition is 'the fundamental category of a philosophy of the future' (2004: 6). If our inability to capture the complexity of the interchange between the virtual and the actual that repetition demonstrates leads us into generalising these events as bare repetitions, a problematic relationship to time is created. If the 'same' is repeated, time becomes trapped in a cyclical loop and change is made impossible. The future emerges out of repetition's ability to carry difference back and forth between the virtual and the actual worlds and guarantees change even when appearances might suggest otherwise.

So far, this all suggests that the repetition of movements in the FPS can be read as a kind of opening to becoming. My current style of gameplay is the product of perhaps millions of actions of aiming and firing. Viewed in this way, the intensity of the military FPS's repetitive regime would suggest a new context for a kind of accelerated production of difference. This also suggests that viewing the FPS through the lens of a compulsion to regulate and fix reality determined by the death drive overemphasises the extent to which it is can be viewed in terms of the management of our behaviour towards a state of anxiety that attempts to exert a controlling force over potential.

There is a problem with this idea and it comes back to Deleuze's central philosophical critique; the generalising effect of representation that structures and limits the capacities of human thought. On a quite literal level, *Call of Duty*, like all video games, exist as pre-programmed spaces and variables of movement. Galloway's central thesis relating to the FPS – his concept of free-moving 'gamic vision' with a new capacity for embodied action – is dependent upon 'fully-rendered actionable space' (2006: 63) as its precondition. This fact is important for the player's ability to repeat in a Deleuzian sense. The fully rendered actionable space that captures our movements also feeds them back to the player in the form of an image, it ensnares the player in a system of cybernetic calculation (see Crogan 2011 and Aarseth 1999). All of the player's bodily actions are actualised within an informational and visual context that enables movement and produces sensations, but also suggests that these intensities are able to be managed and regulated because they are catalysed by an on-screen representation. This means that the player's gestures and the bodily sensations that they produce and articulate avoid contamination with the conditions of openness of the physical world. The game's laws and rules

become coterminous with actuality and the game's gestural feedback loop ensures the capacity for repetition to be captured within this altered context. In Deleuzian terms, this means that the actualisation that is added to the virtual series as part of repetition's fundamental reciprocity between the virtual and the actual has altered in nature.

I am not suggesting that the gesture of aiming and firing has been stripped of its affectivity and represented in the sense of 'remembering' in psychoanalysis. But that the fact that the game is a representation means that the possibility for our bodily sensitivities — which are the cornerstone of our capacity to repeat — are subject to an intensive form of management that influences even virtual potentials arises. As we play the game and become expert players, the representation's capacity to produce certain affects and manage our bodily experience expands and takes hold of the virtual series in an ever-tighter grip. Repetition becomes the agent of carrying the game's affectivity into the body from which it is passively synthesised back into ingame actions, which repeat and refine the process of learning. This represents a coding of the player's affectivity and its future potentialities by the game.

So, the military FPS makes us repeat within representation. This means that Deleuze's model encounters a problem because the very process that frees the future from the 'iron collars' (2004: 330) of representation has now been enclosed by it. In effect, the iron collar has become an 'iron space' within which repetition is still able to move between the virtual and the actual, but in a narrowed and pre-calculated relation to difference. For Deleuze, 'a law compels its subjects to illustrate it only at the cost of their own change' (2004: 2). Moreover, it is through this lens that we should see both the FPS and Deleuze's philosophy more generally. Both Väliaho (2014) and Ash (2013) have approached the military FPS, and the *Call of Duty* franchise in terms of its ability to place players in a perceptual and embodied situation that amounts to a form of neurological training and affective attunement. Väliaho seeks to understand how the game encourages certain actions and bodily affects as a facet of a biopolitical and neoliberal mind-set (or body-set) that seeks to exert a controlling force over the future.

My analysis suggests that the outcome of Deleuzian repetition has been subverted and captured by the FPS's representative and bodily regime. There is no question that a change in player behaviour occurs throughout our exposure to the game. The question is less one of pitting Deleuze against Freud, and more of allowing Deleuze's understanding of how repetition produces becoming (difference) within the constraints of a representative system to explain how our actions change over time. If repetition is the philosophy of the future, what happens to the future (and the future of the player's gestures) when repetition happens within the FPS's iron space of representation? To answer this question, a further return to my experience of the game and a mapping of these impressions against other scholar's reading of the kind of becoming that the FPS initiates is required.

6.3.1 Repeating, Predicting and Mastering

Game Log 6.2

Call of Duty: Advanced Warfare (2015) | Team deathmatch | 'Riot' | January 2015.

I respawned in the south of the 'Riot' map and sprinted across the open ground, pausing to zoom by aiming down the sights at likely hiding places for snipers on the roof of the prison building that dominates this arena. As I zeroed in on the roof I maintained my general trajectory towards a burning bus directly ahead of my spawn point (Figure 6.4). I used the bus as a springboard to "exo-jump" over the prison gate. That was a risk, silhouetting my avatar against the bright sky. I felt like a clay pigeon for a few beats. As I hung momentarily at the top of the top of the jump's arc, I surveyed the street leading to a rooftop to the north. The roof is one of the map's primary battlegrounds. James Ash calls these nexuses of contingent encounters between players 'possibility spaces' (2013: 28). They draw players in with a habitual gravity. The street was empty, for now, so I could proceed unhindered.

I landed, and compressed the analogue stick sprinting toward the shadows created by the structures on the road's east side and hit the crouch button, trusting to the cover of darkness to hide me from unfriendly eyes. The eastern edge of the map shielded me and opened up multiple possible points of danger to the west. The left side of my body seemed almost to tingle in response. I panned the frame back 180 degrees towards my point of entry, checking for pursuing enemies, continuing this movement to cover a hole in the building garlanded by perpetually burning CGI flames and a doorway parallel to my avatar. I used the shoulder button to aim into these openings and held the frame zoomed-in for a few seconds, tense. Pan, zoom and hold. Pan, zoom and hold. My middle finger hovered above the fire button on my gamepad, but did not

engage. *If you are going to walk through that doorway, do it now*. I was secure on both sides — right and left, east and west. The trick here was not to win the game of whose panicked reflexes can jolt first into action, but to apply the frame to your enemy's future movements, to make each zoom into the sights a snare.



Figure 6.4: Attunement in action. Screen grab Call of Duty: Advanced Warfare (Activision, 2015)

In autoethnographic writing above, reactions — which dominated my early play and conceptualisation of the FPS — have been replaced by actions, by repetitions that unfold without conscious effort or explicit rationalisation (although these processes of sense-making must now be applied here retrospectively). My spatial experience and motor skills combine and unfold to produce a certain image or style defined by the quick scanning, or surveying of points of danger mapped by habit. I am able at points to achieve this while keeping my avatar moving in a trajectory towards the area of the map that I hope to attack. These movements are essentially proactive. The aiming into threatening zones are actions tailored to minimise the capacity for the game to take me by surprise. The image pulses with a bodily rhythm that regulates threats but also suggests a regulation of the player's affective state. The more threats are surveyed and dismissed, the more the body is kept in a state of relative affective constancy. Shocks are avoided or neutralised. The same gestures were repeated and applied to the multiplayer map for the same purpose throughout my gameplay. It is a motif of my playing style. This represents

a kind of repetition within this single 'life', but is also a tactic I use in all almost all my lives in this play-though and others.

This automatic ability to aim into threatening areas as they are encountered reveals the extent to which the game's control system, multiplayer maps and enemy behaviour have been 'mapped' onto my bodily sensitivities after long hours of play. In his article 'Technologies of Captivation: Videogames and the Attunement of Affect', James Ash has suggested that the FPS engages the player in a regime of 'affective attunement' where the body of the player is trained to automatically engage in certain actions to avoid negative affective states, such as frustration that arise from being 'killed'. He breaks this concept of attunement into two related strands that are intertwined in encounters with other players in the game's zones of heightened contingency, its 'possibility spaces'. For Ash, 'the attunements users develop as they negotiate the multiplayer mode of Call of Duty 4 have both somatic and analytic character' (2013: 34). Somatic attunements relate to the training of the player's sensorimotor skills to operate at increased levels of instantaneity and accuracy within the game. They determine the reaction times of the player's gestures and the efficacy of these reactions. Analytic attunements represent the way players learn from past experiences and intuitively act in a strategic manner. Importantly, Ash understands each of these strands of training as fundamentally relating to their affective character. They operate without a conscious cognitive decision-making process being realised. Experienced players braid strands of somatic and analytic affective attunements to act 'automatically'. This is an important aspect I take from Ash's work, and one that resonates with my mapping of Deleuzian repetition against the game-player situation in the previous section.

In his article, Ash does not seek to interrogate the relative dominance of each of these strands of unconscious bodily training, nor does his line of argumentation suggest ways in which each aspect might alter in its power to influence the player's gestures over time. My analysis of the image and what my experience of playing the FPS points towards is the way our affective relationship to the space and the behaviours of enemies (or analytic attunements, in Ash's terms) begin to exert a greater influence over the player's gestures in respect to somatic reactions the more that we play.

Väliaho's conceptualisation of the FPS environment's affective relationship to the body is helpful in providing an insight into why this might be the case. Drawing on Alva Nöe's (2006) work on the embodied and 'direct' nature of perception, Väliaho argues that the FPS's multiplayer maps are not simply visual representations of geometric architectures that are memorised and mapped by the player's conscious mind, but are actually composed of strands of affective and perceptual motor-memory (Väliaho 2014: 35). Broadly, this perspective is developed out of the central premise that our perception is actualised in relation to the terms of our embodiment and our motor-movement through space and vice versa. Väliaho develops a position in which the game's spaces are composed of surfaces imbued with tactile qualities and affective resonances that exert an influence on how the player moves and behaves within these spaces.

In my description above, it is clear that my relationship to the space holds a physical charge that has been modulated and refined after long experience. I sense certain areas of the map as threatening and act to cover these areas with my crosshairs. This response to the space's affectivity is, of course, a precursor to firing my weapon and removing a threat. The tactile nature of these spatial analytic attunements – to use Ash's term – determine how, where and when somatically attuned actions such as aiming and firing are actualised. In this way, our affective relation to the game's spaces, if they are seen within the context of analytic attunements, are characterised as a form of experiential knowledge that plays a determining role in how the player's more contingent gestures are manifested. In the gameplay analysed above, affective analytic attunements guide my avatar as a form of aiming before aiming. This suggests that the somatic actions and attunements exist within an envelope of analytic attunements once these skills have been sufficiently developed. The key here is the way this apparent rise in the importance of analytic attunements neutralises both the spatial threats posed by enemy players and the necessity to engage in somatic 'shootouts' where reaction times determine success and failure. In this, the player retains certain sensitivities, but the capacity to be shocked is subject to an intense form of regulation by habituated gestures.

If we consider Ash's concept of attunement in relation to the model of repetition discussed in the previous section, we have a general model for how our interactive feedback with the game operates to effectively manage our bodily sensations that enter into an ever-narrowing form of refinement by this process. As Ash suggests, this is not a situation in which repetition produces a

player numbed to affect. Rather, the dominance of the essentially fixed representations that express our input and feed back into our future repetitions become the site of a possible reading into the specific affects and values that are guiding this process.

For Ash, the motivation for this refinement of the player's sensitivities through repetitive play is apparently in line with the logic of the game's ludic regime, which is to stay alive while killing the maximum number of enemy players. As such, these changes are initially seen by Ash as being aimed straightforwardly at improving player performance as judged by the game's metrics of keeping score. Somewhat similarly, for Väliaho: 'In the visual economy of the first-person shooter, the directness of perception is coupled with affective immediacy: killing our adversaries gives us pleasure; being killed by them teaches us through pain' (2014: 35). Within this conception, essentially ludic goals are aligned with inciting pleasurable affective responses and the failure to achieve these goals produces a form of punishment in the form of pain. In Väliaho's work, it is through engaging the player in these affectively inflected abstract values that the FPS as an apparatus of neoliberal governmentality can train bodies to confirm to its underlying political values illustrated by the concept of the 'neoliberal brain'. Here the FPS takes shape as a carrot and stick approach, which takes hold of the player's 'life' for ultimately political ends and positions the FPS as a subjectifying biopolitical dispositif. While I do not wish to suggest that the pleasure/success, pain/failure organisation of the game's affective dynamic plays no role in shaping the player's gestures in the Call of Duty franchise, I believe that, because of the operation of repetition within representation, our relationship with the game's affective intensities changes over time and that this has the effect of complicating a reading into the game's explicit political values.

Within the logic suggested by Väliaho and Ash above, the player's success in the game is doled out in the form of pleasure, as positive affective stimulus that acts as the motivation for playing the game. An affective reward is aligned with an abstract value – winning, in other words. However, my analysis of gameplay after a long process of habituation suggests that becoming an experienced player by attuning myself to the game produced a form of gesturality that – first and foremost – sought to regulate dramatic swings in sensation. Seen from this perspective, the habituated, repeating FPS player appears to be engaged in a project to master the game's capacity to instigate intense instances of affectivity. This does not mean that the FPS reverses its

biopolitical character, or side-lines the body. Rather, the player's habituation to the FPS appears to suggest that the affective regime put in play by the apparatus that is so crucial to this reading meets a form of resistance in the player's capacity to adapt.

The values attached to a player's affective relationship with the game explain why Väliaho sees the FPS situation as functioning to 'reify our primal need to survive' (2014: 35). What a Freudian perspective and my analysis of Call of Duty: Advanced Warfare gameplay suggests is that survival and the attendant values attached to our affective sensitivities are not the be all and end all of the manner in which the game shapes the player's gestures. It appears these gestures are, at least in some part, organised by an almost opposite desire to avoid stimulation and achieve a state of affective constancy in respect to its threatening environments. The outcome of this is an unbinding of the game's affective regime as positioned towards the affective pay-off of ludic advantage. Instead what is suggested here is that ludic victory can be viewed as a byproduct of the vigilance against the game's capacities to take the player by surprise, to shock and cause unanticipated affective states, but also to expose the player to intense forms of pleasure. Effectively, my analysis points to a situation in which the player achieves ludic success as a non-causal output of their desire to achieve a state of affective constancy via repetition. This suggests that the goal of obtaining a quiescent affective relationship with the FPS is not achieved through the pleasure of killing and survival, but by ensuring that the player anticipates and controls the game's contingencies. Ironically, this is expressed not by the pleasurable payoff of killing, but by the narrowing of the potential for shock that removing an enemy from the game's space results in.

In line with this, Ash's conceptualisation of affective attunement does not see the player's attainment of skill as straightforwardly aimed at producing sensorial reward. According to Ash, 'developing an attunement to *Call of Duty 4* is as much about attempting to minimise experiences of troubling affective states as it is about doing well in the game and winning matches.' (Ash 2013: 45) Here, Ash describes a situation where players are trained by the game to *avoid* certain affective states rather than attain positive sensations. This desire to avoid negative affective sensations functions to narrow the player's potential to sense the world. In turn, this aversion to affect has implications for the capacity of the player to continue to learn and develop new actions in response to the game.

However, the risk to the player's future that this aversion to sensory experience and affective intensities generates is not just related to strangling the contingences of the game, but to the regulation of sensation and of bodily sense, which the player carries forward into the world. This is where my work realigns with Väliaho's reading of the way 'the first-person shooter imagery defies critical distance, triggering a primal need to be constantly foreseeing dangers' (Väliaho 2014: 41). Here I return to the past/future binary and its importance to the FPS experience mentioned in the first half of this chapter. What I believe we see with the military FPS is the management of our relation to the future by an essentially cybernetic system of training. In the last few lines of his chapter 'The Game of Life: Experiences of the First-person Shooter,' Patrick Crogan makes the following claim:

The designated information exchange targets the modeled event so that it is over before it has begun and consequently unable to impinge on the present orderly homeostasis. A really great first-person shooter player is still a point amid a seeming frenzy of energetic interactions, neutralizing opponents before they have the opportunity to disturb this equilibrium (2011: 109).

By aligning the FPS experience with a cybernetic model, Crogan argues that the player operates to cancel the potential of all risks and contingencies before the 'event' of paying the game has begun. The aim of this future modelling, 'orderly homeostasis' is control over the internal variables of life. Crogan's point here is that a 'great' – that is to say habituated or attuned – FPS player is not measured by scoring points or the amount of pleasure that they derive from the embodied experience of playing the game but, instead, by their capacity to maintain an affective equilibrium. If we think back to our work on the death drive, this reading offers a means of connecting the mutated Deleuzian repetition with my Freudian reading of the respawn mechanism.

What I believe the FPS achieves is the way repetition, now functioning under the guise of affective attunement, encourages the management and regulation of stimulus and exerts a patterning force on both the player's gestures and their bodily sensations. Here, more experienced or better players are those who have trained their bodies into repetitive actions that express a state of anticipation. If we think back to Freud, we can see this behaviour as a gestural symptom of anxiety. A state of constant anticipatory fear cancels other intense

affective states. The irony of the compulsion to anxiously repeat that is expressed by the player's gestures is that the FPS apparatus has incited an automation, encouraging the repetition of certain movements. While the attainment of a state of affective constancy on one level alludes to a form of mastery over the game's bodily regime, at the same moment it points to the way this regime has determined these changes. I would like to suggest that the player's repetition effectively militates against time because of the mutually constitutive connection established in the analysis above between the predictive gestures of the player and their predictability. This urge to manage the potentially shocking possibilities of an uncertain future has been identified by Richard Grusin as an emergent characteristic of post-911 Western media culture and practice via the concept of 'premediation.' For Grusin, the videogame is emblematic of this new impulse:

Rather, by trying to premediate as many of the possible worlds, or possible paths, as the future could be imagined to take, premediation bears some affinities to the logic of designing a video game. More like designing a video game than predicting the future, premediation is not concerned with getting the future right, as much as trying to map out a multiplicity of multiple futures (Grusin 2010: 46).

Grusin's main object of study is the news media and the manner in which the potential threats that fall under the umbrella of the War on Terror are subject to pre-emptive reporting. Here, specific threats are not focused upon in order to build a coherent narrative that seeks to map or determine a particular future. Instead, a whole panoply of potentially contesting dangers are constantly generated and projected into the future in the reproduction of various 'what ifs?' Grusin makes no real mention of Freudian repetition or the death drive in his study, but I think what we can see in the concept of premediation aligns very precisely with a compulsion to repeat threats in order to obtain a shield of anxiety that blocks their potential to shock and stimulate the subject. Of course, just as with Freudian repetition, this tendency only blocks the affectivity of the event itself, rather than preventing its actualisation. Indeed, Grusin joins a chorus of contemporary theorists (Mirzoeff 2005, Mitchell 2010, Zuliaka 2009) suggesting that the pre-emptive nature of the U.S. lead War on Terror has, in fact, operated to repeat, exacerbate or 'clone' the threat of terrorism. Here, of course, 9/11 stands in as the initial traumatic experience that is effectively being worked through and re-experienced in each repetition.

This broader context of premediation in Western media cultures suggests the success of the *Call of Duty* franchise between 2003 and 2016 aligns with this historical period by conforming to its compulsion to premediate potential external threats of which it makes a particularly vivid bodily performance. The anticipatory gestures of the habituated or master FPS player function to block the potential for new experiences, particularly those determined by the actions of enemy players. It is redolent of the desire not to feel, but to become in some sense immune to the FPS's capacity to take the body in hand. The player's repetitive and pre-emptive gestures are not reactions to the appearance of threats but instead, like the biomedical understanding of the immune system forwarded by Roberto Esposito, represent a presupposition of the existence and behaviour of the ills they are meant to counter (2011: 7).

Like the immune system, the player has developed a corporeal memory in their gestures that ensures victory in encounters with the other in terms of the power of these encounters to produce surges of stimulation. Via repetition, these pathogens and the gestures through which they have been negated have been added to a kind of memory-bank within the deep structures of the player's body. From the tactile sensitivities of the skin in its contact with the game pad, to the contraction of the muscles, movement of the skeletal structures and the regulation of those organs that respond to excessive excitation, the exterior demands of the apparatus have been implanted decisively into the corpus and have both protected it and limited its power to become or expand. Esposito notes in *Bios* that:

Just as in the medical practice of vaccinating the individual body, so the immunization of the political body functions similarly, introducing within it a fragment of the same pathogen from which it wants to protect itself, by blocking and contradicting natural development. (2008: 46)

The key relevance of this cancelling of what Esposito calls 'natural development' to the argument developed in this chapter lies in the way in which immunity (whether in the biological or political sphere) protects via a dialectic between inclusion and exclusion that functions to install a lasting limit on the host organism's powers of becoming. This reductive side effect of protection in regard to the player is the establishment of a future-orientated gesturality that operates to minimise surges in feeling and keep the player in a state of constancy and affective stasis. The application of Deleuze's model of repetition as a generator of difference or change within the FPS's repetitive regime of representation suggested that the player's becoming had

been decisively intercepted and calculated by the apparatus. Here, the player's capacity to change has been leveraged against itself. Coordinating this observation with Esposito's characterisation of immunity's reductive and controlling effect on the future of the organism or state body brings to light how the apparatus has been able to take control of the player's body at one remove, via the propagation of self-defensive action that preserves the player's in-game life as something deathly in terms of its regulation of any capacity to change that exceeds the game's representational regime.

Once again, what we see here is a gestural articulation of the double negation of the immune system, but in this case, a more enduring immunity or protection from the capacity of the game to take the player by surprise and to affectively map the body has been achieved. That which the FPS has rendered as the exterior threat (enemy players) and their capacity to affectively stimulate the player have been included as form of self-defensive bodily habit. Again, these dangers have not been neutralised by being kept at a distance, but have been defeated as a result of their absorption in the corpus. As Esposito is at pains to demonstrate, 'the immune process entails the presence of a negative driving force (the antigen) which it must not simply eliminate, but rather recognize, incorporate, and, in this fashion alone, neutralize' (2011: 160). Through constant repetition motivated by the respawn mechanism, this internalisation has produced the necessary self-defensive response to create a much more permanent state of exclusion.

The player's previous immunitary behaviour in the form of the tic-like reactive gesture of aiming and firing and the navigational headings supplied by the mini-map take shape as part of a process that reaches its limit-point in the habituated player's gestures. These gestures effectively anticipate the actions of the enemy that they recognise and eliminate with unerring accuracy, thereby negating the threat that they pose. Even when the habituated player is shot and killed, their capacity to be taken unawares appears to be minimised. The main reason why such a negative and reactive mode of becoming is the target for critique by Esposito in the form of the double negation lies in the way that the desire for immunitary protection ends up patterning the interior with its excessive perception of the risks to its corpus, making the defensive response the primary risk (2011: 16). For the master FPS player, this process has progressed to such a degree that the articulation of self-defensive gestures has become

automatic. This automation is not that of a predictable reflex-like reaction like that mapped in the immune image. Rather, it is the repetition of habitual strategies of self-defence. In this way, at the very moment the player appears to master the capacity of the game to threaten them, they have, in turn, been mastered by the risks that the game poses in the form of their defensive strategies.

If we take this immunitary logic to its furthest extreme, the state of in-game death itself becomes a perverse kind of goal because it represents the ultimate state of affective regularity within our bodily engagement with the game. Total immunity to the game reaches the horizon of the death drive as that which is inorganic and affectively quiescent is threatened by nothing. The in-game death is the state that has the most minimal capacity to take us by surprise and engage our bodies in intense affective sensations and a drive towards it is suggestive of a desire to immunise the player from the threat of its capacity to sense. This suggests that the game, as well as functioning to encourage survival, can over time be read as a contemporary expression of the death drive in action achieved through the limit-point of immunity's destructive self-defensive tendency. The most manifest example of this kind of behaviour that I have both engaged in and witnessed occurs in EA's Battlefield 4 multiplayer map 'Operation Locker', which acted as a catalyst for the line of argument adopted in this chapter.

Game Log 6.3

Battlefield 4 (2013) | Conquest | 'Operation Locker' | January 2015.

The mid-game map-screen (Figure 6.5) from which I selected my respawn-point had already developed a familiar pattern. Players, drifting chevrons of orange and green clustered around the central objective of the map, a viewing tower in a Chinese prison superficially constructed after Bentham's panoptic model. The rest of the map is laid out as a succession of connected rooms containing objectives that players must fight through and hold, rather than the open spaces that characterise much of the *Battlefield's* unique appeal.

In *Battlefield* the player is given a choice where to respawn, selecting zones controlled by their team, or joining squad members on the move. This mechanism encourages players to make strategic decisions about where they re-enter the game, as well as being a store of cartographic information suggesting new approaches to conquest zones unoccupied by enemy players. I had

the choice to respawn away from the map's central conflagration of action and bodies, to circumvent the killing zone and earn points for my team. But I didn't. Instead, like most of the players on this particular map, I respawned next to one of my squad members lying prone in front of a large door leading to the central tower and objective. A whole clutch of my teammates surrounded this doorway, firing into the aperture which was obscured by smoke and explosion effects from grenades and sky-burst incendiaries. I hit the fire button and unloaded a whole clip into the void, firing blind, occasionally seeing the spectral outlines of enemy players through the murk. Teammates died and other's respawned to replace them at almost the same rate. A grenade looped out of the smoke and landed next to my avatar, killing me instantly.



Figure 6.5: Dying in your own way. Screen grab from Battlefield 4 (EA, 2013)

In the Operation Locker multiplayer map, the irony is that the objective located in the central observation tower is often difficult to see beyond the smoke and pixelated incendiary flares. Players blind-fired through a limited number of doorways, even in the face of other options that might break the deadlock. It is as if players are simply feeding themselves into the meat-grinder. The manner of their in-game death is ever more predictable and contained. Here, repetition makes a break with mastery as measured by the game as a score related to living and dying, taking objectives. The objective of the repetition seems to be simply to die in a predictable and

controlled way. This returns us to Freud's statement that: 'We have no longer to reckon with the organism's puzzling determination...to maintain its own existence in the face of every obstacle. What we are left with is the fact that the organism wishes to die only in its own fashion' (Freud 2010: 65). However, this desire to die, which is not a consequence of the player's nature as an organism, is legible as the horizon or limit-point of the FPS's nature as an immunitary apparatus. This form of gestural repetition and affective constancy represents not only the FPS's high watermark in terms of its authority over the body but also the end of the development of the player's relationship with a particular game's affective regime.

If the player was motivated by the affective pay-off of winning as suggested by Väliaho (2014) or by the desire to avoid negative affective states like frustration as argued by Ash (2013), then the logical extension of these ideas is that the more a player masters the game, the more their desire to play increases. However, in the pursuit of pleasure or avoidance of pain achieved through mastery determined the trajectory of the player's corporeal relationship with the game, there arises a conflict between the interests between the player and those of a money-making franchise of FPS games such as *Call of Duty*. If total mastery equated to total satisfaction, then this removes the need for the player to purchase the next iteration. Therefore, how can the fact that *Call of Duty* is an annual and iterative series that evidences a high degree of loyalty as well as a continually high number of sales be explained?

If I am right that the game's appeal extends only so far that the player is affected and learning, when the player's predictive movements have become fully automated and predictable, the game reaches a kind of self-defeating state in which its power is seemingly exhausted. What I would like to suggest here is that this immunitary obsolescence is very much built-in and determined by the broader economic imperatives of publishers like EA and Activision. Below is a list of the thirteen entries in the main series of *Call of Duty* games in descending order by their year of release and with their publicly available commercial revenues (Gerencer 2015):

(2015) Call of Duty Black Ops III, \$592,000,000 (sales rank 9)

(2014) Call of Duty: Advanced Warfare, \$840,000,000 (sales rank 6)

(2013) Call of Duty: Ghosts, \$1,080,000,000 (sales rank 5)

(2012) Call of Duty: Black Ops 2, \$1,1,76,000,000 (sales rank 3)

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(2011) Call of Duty: Modern Warfare 3, $1,228,000,000 (sales rank 1)
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(2010) Call of Duty: Black Ops, \$1,228,000,000 (sales rank 2)

(2009) Call of Duty: Modern Warfare 2, \$1,080,000,000 (sales rank 4)

(2008) Call of Duty: World at War, \$628,000,000 (sales rank 8)

(2007) Call of Duty: Roads to Victory, \$84,800,000 (sales rank 13)

(2006) Call of Duty 3, \$320,000,000 (sales rank 10)

(2005) Call of Duty 2, \$235,600,000 (sales rank13)

(2004) Call of Duty: Finest Hour, \$180,000,000 (sales rank 12)

(2003) Call of Duty, \$70,000,000 (sales rank 14)

In each of the games above, novel movement mechanisms and updated weapons require new somatic attunements and new multiplayer maps reset the player's analytical attunements. If the player's mastery and obtainment of positive or negative affective states was the corporeal incentive that kept players playing, then the yearly release and continued commercial success of the Call of Duty franchise becomes an enigma. The pleasure-seeking or pain-averse player would stick to the game they knew best. However, if the process of player habituation reaches an endpoint at which the player's immune reaction protects them from stimulation, then what the data above suggests is that this ending is simply another opening into a fresh cycle of habituation. In other words, repetition doesn't simply occur at the gestural level of the player's body, nor in the broader life-death structure of the respawn mechanic. There is a meta-cycle of repetition with the release of each game that ties the immunitary interception and administration of the player's gestures and body charted throughout this thesis with the financial needs of videogame publishers. The annual repeat purchase of Call of Duty games represents a repetition of the player's passage from novice immune image, to a form of cartographic gaming, and finally to a player who has mastered, and been mastered by, the game. This 'life cycle' of the player is bound to the commercial interests and annual economic cycles of a company like Activision.

6.4 Conclusion: Sovereignty over death?

This desire to die in a controlled manner leads us back to our consideration of the visuality of the respawn mechanism discussed in the first half of this chapter. Seen in this new relation with my reading of the death drive-inflected and immunitary bodily dynamic of gameplay, the

motivation behind the provocation of the player that marked my reading of the killcam starts to become clear. The kill cam must shock the player back into the game from a state that initially satisfies their perverse unconscious and affectively attuned desire to regulate the extent to which the game can incite changes in their affectivity. Because the player's in-game death appears to satisfy this drive fully, the game must motivate the player to continue playing by confronting them with an image that recasts their death as a loss of control, rather than the being the summation of their authority over the game. This is achieved both through the remediation of cinematic techniques and via the rendering of the player's death through their killer's eyes. The satisfied death drive is remediated by the cinema and, in this process, it is reprocessed into an incitement to re-enter the game environment. The player is fed back into the game, respawned to attempt to satisfy this drive once more, and so the repetitive cycle continues.

This chapter has also attempted to identify the different ways in which the military FPS captures our bodily performance within repetitive rhythms that seek to bind the player more tightly to the game, to immerse the player more thoroughly within the apparatus. I have attempted to read the way the repetition of the life-death-respawn cycle frames the repetitive gestural inputs that abound in gameplay. What has become apparent in this chapter is that mastering the game has taken on a new and unexpected aspect framed by the desire to control the manner of your in-game death. In my final analysis of the Operation Locker map in *Battlefield 4*, I encountered a situation where the gameplay was almost entirely directed towards making the encounter and the player's eventual death as predictable as possible. Of course, I am not seeking to argue that this analysis provides an umbrella under which the FPS can be conceptualised in its totality. However, it does suggest that there is a coming together of impulses of control and mastery and a will to return to a quiescent state – a medialogical death, if you will – that the game must militate against to provoke the player to respawn, to play again.

Here, mastering the game means the player entangles their becoming within a representational regime that narrows and focuses our potential for future action. This suggests that the game is more broadly engaged in an attempt to fix and regulate our affective states, to attune them in Ash's terminology. The focusing and narrowing that is achieved by a repetition mutated by its encompassing by the 'iron space' (Deleuze 2004) of representation has a significant cost to our

capacity to change: it immunises the player's body from expanding and having an open relationship with the world. The player, as Väliaho and Crogan have suggested, becomes a predicting body and brain that attempts to strangle a future cast as composed of threats. However, this is not totally in the service of affective reward of survival in the game. Rather the experienced player engages in behaviour and produces an image that suggests a narrowing of sensation. What emerges from this is a kind of paradoxical sovereignty over death, where the death drive's impulses towards constancy and regularity in the face of new stimulus appear to exert a patterning effect over our future bodies and the future, which are in turn, rendered deathly.

Immunitary Gaming: mapping and profaning a neoliberal apparatus

7.0 Immunitary gaming

What makes competitive multiplayer FPS gaming immunitary in the final analysis? This thesis approaches the FPS from the position that neoliberal governmentality requires certain dispositifs which amplify the subject's status as an individual, while at the same time cancelling liberty. To work its way out of the apparent aporia of this situation, contemporary biopolitics must operate at one remove, avoiding the direct imposition of its will on the body and effacing even its presence in a manner almost directly counter to the model of the panopticon and the disciplinary society of the nineteenth century developed by Foucault (1991). As Jason Read (2009) has noted in his analysis of Foucault's lectures on neoliberalism 'as power becomes less restrictive, less corporeal, it also becomes more intense, saturating the field of actions, and possible actions' (2009:28). However, my analysis of the FPS suggests neoliberalism does not constitute an exclusion of the body, rather, what we see is the bracketing of the domain of its conduct by keeping it in a reactive, rather than active state. The provocations that produce these reactions are not direct impositions of power. Rather a situation of danger and insecurity is established between the subject (self) and a competitive milieu (other).

This thesis has argued that the FPS plays a role in generating and extending this delineation in the competitive relationship between the self and other by conceiving the subject as a reactive immunitary organism as conceptualised by Roberto Esposito (2008, 2011). Immunity in this context represents another paradox which is layered over neoliberalism's need to both liberate and govern the individual. Because the immunitary body marks the horizon of the biopolitical subject, its interactions with the world are only sensed and made intelligible as transgressions against its interior. It is a mode of negative becoming (Esposito 2011: 10) that establishes the distinction between the body and its environment while ensuring that this distinction is

negated. As such, all interactions are rendered as aggressive and infectious reactions against foreign invaders which must be responded to with the body's internal defences (Esposito 2011: 17). In this situation, the outside is only mastered by being incorporated, meaning that despite its character as a category for distinguishing the self from the outside, the immunitary body enters a zone of indistinction with what it opposes.

The relationship between immunity and FPS games like Activision's *Call of Duty* franchise lies firstly in the apparatus' production of a bodily interior for the player which is pitted against an aggressive and competitive environment. I have read various aesthetic elements of the genre (HUD, mini-map) as involved in generating and reinforcing this distinction. Of course, this production of a sense of unity with the FPS signals that the body has already been transgressed and reconfigured. There is an originary otherness to the player's sense of self as assembled by the apparatus that represents an extension of what Esposito (2011: 148) has called (following Stiegler 1998) the essential technical character of humanity. I have tried to elucidate the way that the player's bodily presence in the game is constituted via their defensive reactions to its threatening milieu.

In each of my chapters, I have read the player's gestures as driven by the need to protect the body the game has established for them, not by keeping the threats to this body at a distance, but by including them within its interior. These acts of inclusion have taken multiple forms but the unifying factor is that each result in a mimicry and perpetuation of the threat that the player is defending themselves against. Importantly, these reactive inclusionary exclusions are doubled in the game and the player's gestures, meaning that we are not simply dealing with an aesthetic articulation of immunitary dynamics, but one that is simultaneously coursing through the player's body and being expressed in their movements. Although immunitary gaming is the activity, or process, the outcome is the production of an insecure subject, a competitive creature apt for an alignment with the values of neoliberalism.

7.1 Three moments of immunity: birth, life, death

This thesis has mapped the FPS as an experience, but my work has also sought to contextualise the form in relation to, and as a point of rupture with, the image systems that emerged in at specific turning points in Western culture: the renaissance and the mathematization of the image and life; the biopolitical and disciplinary nature of the cinematic image. And just like the cinema which has been read as 'cartographic' (Conley 2007 and Väliaho 2010) and akin to the aesthetic traditions of the renaissance (Baudry 1974), the FPS acts as a kind of aggregator for forms of cartographic, perspectival and cinematic representations, remediating them within its content and producing new relations between these mediums and the player. Bolter and Grusin's idea that remediation and the coming into being of media forms entails both respect and rivalry in which one medium appropriates another 'in the name of the real' (1999: 65) means that contextualising the values of these mediums and charting how they change in their translation by the FPS becomes an important exercise in understanding the kind of reality the apparatus both reflects and generates. Reading the mutation of these forms has been of central importance in understanding not just the nature of the FPS as a reactive medium, but in capturing exactly how and why these responses are incited and managed.

7.1.1 The birth of the player: immune Image

In chapter four 'The Immune Image,' I started with game's primary visual interface in the form of the first-person perspective and the player who lacks what James Ash (2013) might call the somatic and analytical attunements, (the bodily skill and spatial knowledge) of an experienced player. The chapter is a kind of 'square one' for both the thesis and the player themselves.

Following Panofsky (1997) and Kubovy (1986) I reflected on the power of calculated perspectival construction and its development in the renaissance to produce a rationalised image and a point of view that underscores the infinity of space beyond its borders. Where for Panofsky (1997: 65) renaissance perspective and its calculation of the infinite was the symbolic form of changes in the fifteenth century episteme and world view, I understood the production of 'infinite' space in the FPS as a threatening other, standing in for what the player is ignorant of and fears, rather than what they know. The production of the vanishing point in the FPS is the result of a fully-rendered and temporally "live" (See Galloway 2006: 62) environment, calculated to the smallest graphical asset. This mathematical space is populated by enemy avatars and overlaid by a gamic skin that seems to demand centring on these threats. The imagination and gestures of the

player are beset by the possibility of this previously only imagined space to be acted upon, and, vitally, for the space to act upon the player.

The chaotic gestures of the unhabituated FPS player are, of course, worlds apart from the static (at least in bare compositional terms) paintings of Donatello or Da Vinci, but they are legible as an attempt to achieve something similar; a relationship to space that makes it subject to human calculation, rationalisation and control. What the FPS's remediation of renaissance visuality tells us is that the construction of the subject by the game is dependent not on a fixed relation to a mathematically realised image, but on the player's affective and defensive gestural reactions to a chaotic and dangerous spatial world. I argued that only by attempting to compose and 'frame' the game's spatial threats by continually aiming the perspective can the player achieve a fleeting sense of corporeal unity and security within the FPS's spaces.

'The Immune Image' concluded that the player's ability to make sense of the game was always fleeting and connected to an equally ephemeral sense of immersion — a state in which the player passes into a state of unity with the game's reality. Both the rationalisation of the image and the production of player's sense of self were understood as ultimately only possible in the moment the player opens fire and shoots an enemy, meaning that the sense of unity achieved by immersion was both temporary and dependent upon reversing or mimicking the threat posed to the player by their in-game enemies. Here, too, the stability of subject-object relations operating in classical vision (Crary 1992) is ruptured but so too is cinematic spectatorship and its more transgressive bodily character. The outcome is a novice player continually incited to react, to twitch the frame from here to there in a doomed attempt to make sense of the game, and, vitally, of themselves. Even at the moment of success when an enemy is killed, this reaction represents a fundamental negation of the active 'human vision' (Galloway 2006: 65) the FPS seems to promise. In this process, I discerned a parallel to Esposito's concept of biopolitical immunity and the double negation (or eventual negation of the self) which is its hallmark.

7.1.2 Cartographic gaming: life lived and sensed through the mini-map

In 'Cartographic Gaming' I charted how a mutation in the nature of cartography from its analogue form to a GPS-style 'mini-map' represented a secondary transition from a medium read in terms of the psyche and the gaze, to one in which the body and its movement are at

stake. Here, the player's gestures and proprioceptive sense became the target of mapping. The mini-map demanded consideration not as a static image of the landscape that manipulates the gaze of its reader and 'freezes' them in certain social and spatial relations (Harley 2001), but as a temporally and spatially dynamic form capable of inciting trajectories of navigation.

The ability of the mini-map to generate the player's movements by visualising dangerous enemy players as waypoints seemingly operated to make sense of and qualify the chaotic spatiality and affect-driven gestural twitches encountered and generated in games like *Call of Duty: Black Ops* and *Battlefield 4*. This habituation was read as a colonisation of the player's sense of embodiment and imagination in terms of a mutation of the body image. This reprogramming and reconstruction of the player's in-game body was legible both in terms of the player's imagined sense of themselves via the metaphor of the cartographic mirror and as the production of a prosthetic and drastically reduced form of proprioception constructed by the qualified affectivity of fear.

The production of a self-sensing body via fear-based acts of navigation led me back to Esposito's interpretive category of immunity and its tendency to negate both what threatens the body and the corpus itself. In the first instance, the mini-map produced a form of potentially affirmative reading of immunity in which the player's imagined and sensed in-game body was read as a product of their identification with the cartographic symbol, denoting their location as a kind of secondary avatar. Here, like the previous chapter, the player is secured by internalising and neutralising that which threatens them by hunting down enemy players which appear on their mini-map, ironically being visualised in the same form on the mini-maps of other players because of this action. In this way, the player is protected but also takes on the mantle of the danger they oppose.

I was also able to suggest the capability of the mini-map to overload the player with the perception of danger, catalysing multiple simultaneous navigational prompts, which dragged the prosthetic proprioceptive sense this way and that. Here there was a re-emergence of the reflex-driven gestural crisis I discerned in the previous chapter. However, in this case the discombobulation of the player's gestures was not a result of ignorance, but of knowing too much.

7.1.3 Respawn and dying in your own way

In chapter six 'Respawn,' I mapped the life-death cycle in *Call of Duty: Advanced Warfare* and *Battlefield 4*'s multiplayer modes as the mechanism of repetition that habituates the player and produces a sense of mastery. The cinematic visuality appropriated by the *Call of Duty* franchise to mediate the player's in-game death was mapped to explain a game like *Advanced Warfare's* appealing repetition. The sequence of cinematic shots was aligned with a reading of Freud's concept of the death drive – that impulse to regulate the capacity of the subject to be stimulated via a return to an unfeeling, quiescent inorganic state. The cinematic aesthetics of the two 'shots' that form this bridge between the player's life and death – the death and killcams – were read not simply as a ludic mechanism or technological necessity designed to return the player to the game, but as part of the FPS's technological unconscious, its unvoiced and undeclared antagonistic relationship with the cinema.

This remediation of the filmic medium was characterised by the 'deathly' exclusion of the player's gestures and the imposition of a cinematic corporeal regime which is both lively in terms of its affective embodiment and passive in terms of the spectator's desire for control over the image as per Shaviro (1993:255). The killcam was understood as generating an alienating mediatic shock, but not because filmic point-of-view aesthetics are straightforwardly alienating (Galloway 2006: 48) but rather because of the production of a repulsive bodily empathy (Barker 2009) between the 'dead' player's stymied gestures and those of their enemy, captured in the act of killing. The exclusion of the player's gestures from the game met with their inclusion in the form of cinematic corporeal mimicry. This was read as operating to incite a compulsive desire to repeat by respawning back into the gamic skin and the multiplayer map.

When considering the death drive, this incitement to repeat took shape as an attempt to master and regulate the extent of the genre's capacity to produce affective stimulation. This challenged the idea that the FPS manipulates the player via their affective sensitivities by aligning killing other players and reaching a positive ludic outcome (see Väliaho 2014) and its counterpart in terms of avoiding specifically negative affective states in the form of defeat (Ash 2013). When this desire not to feel was coordinated with my observation that the gestural style of the master player appeared to operate in a habitual and rote manner, what emerged was a player that

seemingly, above the desire to win or to avoid defeat, was motivated by wanting to die in a controlled way that blocked the game's power to engage them in reactive movements.

Mapping and adapting Deleuze's (2004) philosophy which conceptualises the mutual connection between difference (or change) and repetition onto an analysis of my gameplay, what emerged was not an escape from representation or fixity via repetition, but a colonisation of the player's virtuality by representation. In the end, mastering a game like *Call of Duty: Black Ops 3* (2016) became a matter of entangling the player's becoming with representation to such a degree that the player's future was in some way harnessed to the game's mathematical present. In this way, the master player was themselves mastered by the apparatus.

I read this paradoxical doubling of mastery as a form of enduring immunity, both in the sense that the player's gestures had been almost totally defined by a desire to include and thereby exclude the threats posed by the apparatus, and in terms of the way the player had achieved a lasting protection. This protection also represented a limiting of the player's capacity to expand and grow, as a side-effect (see Esposito 2008: 46). In this final immune analysis, a limit-point was reached in the relationship between subject and apparatus. The reaching of this immunitary horizon was not read as a final defeat of the immune processes at work in the *Call of Duty* franchise. What became clear was that these immunitary processes could be viewed as aimed towards this limit-point for the specific reason that a much more general repetition of the process of attunement could be repeated in the return to an unhabituated state that all players experience to some degree when they purchase and play a new game. The obtainment of a more enduring form of immunity is not a faulty after-effect of the player's relationship with the apparatus, but a way of provoking an immune reaction for financial gain. In this way, I could align the FPS's production of immunitary gaming with market-driven imperatives, which, of course, neoliberalism valourises above all else as a self-justifying barometer of success (Crouch 2011:25). Crucially, in this final reading of the player's immunitary reactions, neoliberal values have not only spread like a virus into every sphere of life (Foucault 2008: 240), but have taken up residence in the body of the FPS player.

7.2 FPS as immunitary dispositif

My analysis was inspired by a desire to question the idea that videogames should be read in terms of action and I have mapped the FPS as a generator of reactions. Something very different is occurring when the player reactively aims and fires, is corporeally composed by the headings of the mini-map, or seeks to reach a state of affective stability than in what Crary (1992) would call the classical relations of subject and object. The point is that thinking about the FPS in terms of other systems of images allows us to discern concrete changes in the apparatus vis-à-vis its predecessors. These images and their values both endure and mutate. Vitally, how and why a form like the FPS and the conduct that it incites represents a rupture from the very forms it appropriates has been central to my work. When the player feeds their gestures into the screen what we see is a rupture in relations to the aesthetics of renaissance painting and the cinema, but this is but a signpost to a more fundamental immunitary turn in the apparatus. It signals the production of the insecure and reactionary being, a neoliberal individual programmed to defend their own interests, starting with those determined by the sphere of the body.

The FPS produces a central irony: just as it appears that an apparatus caters to action, produces an opportunity for agency, a kind of 'humanity' in which a self-determined individual can express its identity, a reversal in the extent to which the FPS player can be deemed a subject is put into play. This loss of the self in the process of an attempt to ensure its security is a facet of the three moments of immunitary gaming I have analysed where the novice player is put into a state of crisis by the game's perspective, a more composed bodily presence is produced by the fearful effects of the in-game cartography, and, finally, where the player masters the game and themselves by shielding the body from affective shocks. At each moment, the game incites a remediation and play with renaissance compositional regimes, cartography and GPS, and finally the cinema in which the nature of these apparatuses is altered. The product is a player that gestures compulsively to secure a sense of self in a context that is both a symbolic form of neoliberalism and an apparatus productive of a body reduced to an immune reaction.

7.3 Profaning the desubjectifying cartography of the FPS

But can this be the entire story? Is the immunitary and reactive figure mapped by the FPS and articulated in the pages of this thesis a destiny written into its code and that of our contemporary world? Or might there exist some way of resisting, in playing in rebellious ways,

in changes to the apparatus itself in terms of software or new types of hardware, like the coming ubiquity of virtual reality? Or, perhaps, resistance needs to be framed in terms of writing our way out of the apparatus by profaning its sanctity?

In his essay, 'What is an Apparatus?' Giorgio Agamben produces a genealogy of the idea of the dispositif that attempts to clarify its Foucauldian origins. But the primary target of Agamben's essay is the way that it posits a rupture in the character of the dispositif from monolithic subjectifying technologies of power to a plethora of technological and media apparatuses that produce what he sees as the de-politicised and de-subjectified body politic of contemporary culture. In addition to the suggestion of a historical rupture in the operation of the apparatus vis-à-vis the subject, Agamben suggests a form of resistance, what he terms profanity, which he pits against his reading of the apparatus as a 'sacred' operation. This appeal to the language of the sacred and the profane is a re-categorisation of Foucault's ideas within the lexicon of Agamben's thought developed so powerfully in Homo Sacer (1998). The concept of profanity is suggestive of the possibility for resistance, even from the body's own immunitary reactions to an apparatus like the FPS.

For Agamben, up to a certain moment in the development of Western governmentality, the apparatus is understood as an abstract machine with the 'capacity to capture, orient, determine, intercept, model, control or secure the gestures, behaviours, opinions, or discourses of living beings' (2009: 14). But important here is the idea that the subject is not a pre-existing figure machined by power into a new form, but rather is a product of processing by apparatuses which are in a constant and constitutive relation (albeit one described in the language of conflict) (2009:16) with humanity.

Key to Agamben's claim that the subject is a product of a conflict between being and apparatus is the idea that any sense of 'I' that is, of subjecthood, is a product of a kind of sacrifice which has its origins in religious modes of authority and Roman law. Agamben argues that making something sacred is the process by which it is distinguished from objects outside of the religious sphere. For example, the way in which a text or drinking vessel is rendered sacred when placed in a Catholic church and separated from its quotidian instrumentality. This sacrifice is an act of division which excepts the object from what Agamben calls the 'common' or 'human law'.

Agamben's work here seems indebted, or at least related, to Guy Debord's (1967) Society of the Spectacle which opens with a quote from Feuerbach:

But certainly for the present age, which prefers the sign to the thing signified, the copy to the original, representation to reality, the appearance to the essence... illusion only is sacred, truth profane. Nay, sacredness is held to be enhanced in proportion as truth decreases and illusion increases, so that the highest degree of illusion comes to be the highest degree of sacredness. (Feuerbach cited in Debord 1967: 1)

Here, the linkage between illusion and separation and the production of the sacred in the Christian context is laid bare. It is this connection to religious power that leads Debord to centre his idea of the society of the spectacle as a means of separating people from the real conditions of their existence and unifying them in an illusion for the benefit of power. For Agamben, this production of the sacred produces a new context in which specific rules and forms of conduct are introduced which are entirely separate from those operating outside of it. In Agamben's words 'The apparatus that activates and regulates separation is sacrifice' (2009: 18). Agamben is suggesting a kind of master figure or origin for the apparatus, which, like sanctification, takes being and transforms it into a subject.

As a counter-point to the dividing and separating power of the sacrifice so essential to the production of the apparatus, Agamben introduces the binary term 'profanation' from the same religious lexicon. For Agamben, 'Profanation is the counter-apparatus that restores to common use what sacrifice had separated and divided' (2009: 19). In terms of the apparatus, then, the idea of the profane introduces the possibility of taking that which is sacred and divided from itself by the imposition of mechanisms of power, and challenging its effects by reuniting that which has been separated. In general terms, this would signify a breaking of the capacity of the apparatus (and therefore of techniques of governance) to surround, enclose and constitute the subject. Now, Agamben does not provide his reader with a concrete example of how this process might work outside of the legal and religious context from which he mines his terminology. However, suffice to say that if the apparatus is involved with producing a subject via the division of being from itself, the possibility of reunion and resistance remains.

The emancipatory potential of the sacred and the profane as a dialectic of capture and release inherent in the apparatus is not the end of Agamben's genealogy. In a broadly pessimistic move, the essay suggests that desubjectification becomes the calling card of apparatuses in late capitalism (2009: 20). Now, of course, desubjectification is a necessary phase or step in the process of constituting the subject which must be voided in order to be coded with norms. However, Agamben (2009: 21) argues that the desubjectifying intermediary phase so important for constructing the subject becomes the new telos for apparatuses in contemporary life, producing not a subject, but a fragmented, provisional and abstracted figure. He gives the example of the television viewer rendered in audience statistics and the figure of the couch potato.

However, the idea that quantitative abstraction and the static body of the TV addict need not go hand-in-hand with what Agamben calls the 'eclipse' of the necessity for apparatuses to produce a political subject. Indeed, this thesis is founded on a refutation of the idea that bodily activity is, in and of itself, evidence of an emancipatory agency and a return to a more human state of being implicit in Galloway's characterisation of the FPS as productive of 'gamic vision' (2006: 62). As Foucault (2008) tells us, neoliberal biopolitical strategies are founded on the programming of certain types of action, rather than upon the docile body required by the disciplinary society (1998). Agamben's dystopian reading of contemporary media apparatuses replicates a certain tendency in his work also visible in 'Notes on Gesture' (2007) to problematise or eulogise media without getting into the detail of how they conform to his more broad-ranging theses. If the FPS is a desubjectifying apparatus, it is not because the player is reduced to numbers of one kind or another and an attendant exclusion of the body and its gestures. Rather, this thesis has argued that the player is automated, that is, desubjectified, specifically via the provocation of their self-defensive reactions in the form of immunitary processes of inclusive exclusion.

Agamben takes this production of the desubjectified subject which is the calling card of the explosion in contemporary apparatuses and suggests that this leads to a situation where identity becomes diffuse to the point where the depoliticised subject becomes something indistinct, something so innocuous that its very lack of identity makes it indistinguishable from potential threats to power:

It is only an apparent paradox that the harmless citizen of postindustrial democracies... who readily does everything that he is asked to do, in as much as he leaves his everyday gestures and his health, his amusements and his occupations, his diet and his desires, to be commanded in the smallest detail by apparatuses, is also considered by power – and perhaps precisely because of this – as a potential terrorist. (2009: 22-23)

Above, Agamben makes a strikingly similar case to the autoimmune subject that is produced as an end-state of biopolitical immunity. Agamben notes that the obedient anti-subject of Western governmentality and its opposite tend towards a state of merger in which each must be treated to the same regimes of control. What Esposito's idea of the double negation gives us here is not so much a counter argument as a change in perspective which explains the rationale for this tendency for apparatuses to consider all beings a threat to power from the inside out. I have argued that when the FPS player encounters the apparatus — and this encounter is multiple and temporally mutable at different moments of play — the product of their desire to protect themselves and thereby maintain and strengthen their security as individuals is achieved by a transformation into that which threatens them. The aggressive-defensive player compulsively acts out and becomes a shade of that which they are afraid, meaning that their sense of self becomes constituted by and confused with the threatening otherness with which the game has besieged them. In their construction by the apparatus, the player is dissolved. Agency and self-interest become reactivity and self-negation.

Taking each mode of immunity in my three chapters as differing perspectives on the same process of desubjectification reveals the FPS player in a similar light to the impotent and depoliticized figure suggested by Agamben. Taken as a correlative to autoimmunity and Esposito's idea of the second negation, this leaves the FPS characterised as a kind of dystopian apparatus against which the capacity to profane its processes appears ineluctably cancelled. In line with this reading, Agamben closes his essay with the following problematic:

The problem of the profanation of apparatuses...cannot be properly raised as long as those who are concerned with it are unable to intervene in their own processes of subjectification, any more than in their own apparatuses, in order to then bring light to the Ungovernable, which is the beginning and, at the same time, the vanishing point of every politics. (2009: 24)

7.3.1 Roadmap to profanity

Agamben is in some sense doing exactly what he is arguing is impossible, at least in terms of the desubjectifying apparatuses like the mobile phone and the television that he describes. At a further remove, he is using language (the philosopher's apparatus) to profane the idea of the apparatus itself. He, therefore, puts himself in a kind of paradoxical position of being both inside and outside of a *dispositif*, able to find a distance from its effects specifically through its mode of subjectification and operation. He reconfigures or hacks the machine for his own ends. Now, perhaps Agamben would argue (and rightly) that the apparatus of language is distinct in its character from the FPS. To use his terminology, language would be a subjectifying apparatus, where contemporary media dispositifs are locked in the desubjectifiying category that produces depoliticised bodies. To put it crudely, he is using a pre-modern "good" apparatus to elucidate and problematize contemporary subjectivity as a product of "bad" late-modern counterparts.

However, despite the close fit between the FPS as an immunitary *dispositif* and the notion of the desubjectifying apparatus proposed in the dialogue I have created between Agamben (2009) and Esposito (2011) above, the idea that there is an insurmountable *aporia* blocking the player's capacity to break from the division from the common effected by the apparatus must be challenged. Is there so little hope that the player can, from within or with the providence of distance from the apparatus, profane it, just as Agamben can hijack language to do the same?

To recap, Agamben proposes a historical split between subjectifying and desubjectifying apparatuses. However, the exact threshold of this dystopian change remains somewhat opaque in his essay, unusual for a philosopher whose work attends so closely to specific legal and spatial manifestations of changes, like those in the laws of Nazi Germany and their attendant spatial manifestation in the form of the concentration camp (1998, 2005). The vagueness of this rupture and the exact way it operates means that a whole conceptual and analytical labour is required to map and even challenge this change which is beyond the scope of this thesis, let alone its conclusion. However, Agamben's argument for a periodisation of the apparatus implies a morphology. This capacity for change means that the desubjectifying nature of contemporary dispositifs is not a permanent calcification of their character and thus the fate of the subject in Western culture is not an inescapable destiny or telos.

Firstly, this thesis has focussed only on a very narrow set of examples of the FPS – those that have been commercially dominant since the mid-2000's – the *Call of Duty* franchise and EA's *Battlefield* games. However, even competitive multiplayer FPS games deviate from the basic parameters of these series. Blizzard's 2016 release *Overwatch*, emphasises team play and a complex and diverse set of characters and classes which must be deployed in concert for the game to be won. Valve's *Left for Dead* (2008) and *Counter-Strike* (2000) are longstanding bastions of team play in which strategic planning by players on the same team is crucial. Whether the work in this thesis can be applied or adapted to these examples remains a question for further research to answer.

Similarly, although I have mapped the player's gestural engagement with the FPS as influenced by visual and environmental elements, players can play against the grain of the apparatus, in terms of cheating behaviour known as "boosting." In a common example, players enter the same game lobby but join opposing teams and meet at a particular location on the multiplayer map. One player will then kill the other and this process is repeated until a round-winning kill-streak is acquired, effectively undercutting the game's rules. However, the extent to which this behaviour can be read as the act of a political subject seems limited. Rather, a compulsive desire to win the game even at the cost of the process of playing seem in evidence. In this sense, it seems boosting and the slavish desire to accumulate game-winning statistics that progress the player's rank and 'prestige' appears to resonate very closely to Agamben's idea that desubjectifying apparatuses reduce subjects to abstracted numerical values.

In Agamben's terms, if proponents of the 'well-meaning discourse on technology' are products 'of the media apparatus in which they are captured (2009:21), then how can any profanation be possible without the creation of a distance from these technologies that would render their analysis impossible. Agamben seems to be foreclosing the possibility of any form of contemporary hermeneutics, while also exempting himself from this *aporia*. Ultimately, the existence of a critical discourse on the FPS – from Penny's (2006) idea that its representations of violence reproduce themselves in the real, to Crogan's (2011) production of a genealogy in which the form is read in terms of the logics of military cybernetics, Ash's notion of the form as productive of bodily 'attunement' and Väliaho 's (2014) work connecting it with the 'neoliberal brain' – speak eloquently against Agamben's position. Each work, whether they appeal to the

reader's intellectual palette or not, is a profanation of the FPS. This thesis has represented my own modest contribution to this effort to deconsecrate and elucidate the politics of the FPS which both reflect and generate the world in which we live.

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