Ludic Zombies: An Examination of Zombieism in Games

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ABSTRACT

Zombies have become ubiquitous in recent years in all media, including digital games. Zombies have no soul or consciousness, and as completely alien, post-human Other, they seem like the perfect game opponent. Yet their portrayal is always politically charged, as they have historically been used as an allegory for slavery, poverty, and consumerism, and may be read as stand-ins for threatening but too human Others of unwanted class, ethnicity of political opinion. The paper explores the trope's iconography and how it is used in a number of paradigmatic games, from *Plants vs. Zombies* and *Call of Duty* to the *Resident Evil* series, *Left 4 Dead, Fallout 3* (the Tenpenny Tower quests) and *DayZ*. Through theses comparative analyses, the paper demonstrates the range of usages of zombies in games, ranging from the facile use of a (seemingly) completely deindividuated humanoid for entertainment purposes to politically aware ludifications of the zombie's allegorical dimension.

Kevwords

Zombies, Zombieism, Allegory, Close Playing, Game Analysis

THEY'RE EVERYWHERE!

Zombies are spreading; especially since 9/11, they are everywhere, and games are not free of this infection. From movies and comics and Jane Austen spoof novels zombie discourse has now spread to nonfiction genres such as "zombiepocalypse" survivalist blogs and net fora, to the news (e.g. the Miami "zombie attack" in 2012). In law (Engler 2012), political theory (Drezner 2011), philosophy (Dretske 2003), and even theology (Pfaffenroth and Morehead 2012), zombies find use in examples and thought experiments, most impressively evidenced by the US Center for Disease Control and

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Prevention (2012) choosing zombies as the paradigmatic example of large scale disaster and infrastructure breakdown.

At first glance, zombies might appear like a legitimately unproblematic target for violence in mass entertainment. They have no soul or consciousness, which makes them, as Krzywinska has pointed out, the ideal enemy in digital games: "they are strong, relentless, and already dead; they look spectacularly horrific; and they invite the player to blow them away without guilt or a second thought" (2008, 153). But conceiving of zombies as a completely alien, post-human abomination is ethically and politically charged. As a group of (literally) voiceless, mentally and physically sub-human Others, it is hard not to read them as a stand-in or euphemism for threatening but too human Others, whether unwanted class or ethnic group or merely political unsavories. Neither subject nor object, and, resisting an either/or distinction, the "livingdead [sic!]" (Lauro/Embry 2008, 95) are excluded from all discursive structures and thus, regardless of their physical state, "dead to the world" (Gunn/Treat 2005, 155). Therefore, to use a (seemingly) completely deindividuated humanoid for entertainment or political effect is in itself a questionable praxis we identify as (popular or political) zombieism.

Existing research on zombies in digital games falls into two broad categories: The majority of studies deals with zombies as a part of the larger paradigm of the horror genre in digital games, discussing their ludic properties at length, yet not primarily with an interest in the specificity of the zombie trope (e.g. Perron 2009). The few existing analyses that run counter to this trend, most notably Carr (2009) and Geyser and Tshabalala (2011), privilege the semantic aspects of their examples, as opposed to the ludic/mechanical aspects. In this paper, we want to complement their research by discussing the friction between the ludically facile use of zombies and their allegorical dimension. By examining six paradigmatic games from various genres, we will show that while in some cases, dehumanized and deindividuated humanoids are used solely for their 'entertainment value', digital games can nonetheless invite and even provoke their reception as political allegories, as evidenced in *Fallout 3* and *DayZ*.

ZOMBIES IN GAME STUDIES

Despite the ubiquity of zombies, their appearance in games is rarely arbitrary. The educational *PiNiZoRo* – short for "Pirates, Ninjas, Zombies, Robots" – deliberately reduces zombies to a cultural trope or meme almost devoid of denotative or connotative meaning (Stanley et al. 2010). Most games, though, operate more carefully with the zombie trope and make use of its special functional properties. Even in the casual game *Plants vs. Zombies* (PopCap Games, 2009), the undead are not immediately interchangeable with ninjas or robots, as their slow, unfettered progress toward the goal (the human player character's house) and their disinterest in the protective plants are integral part of the game design (Venturelli 2009). This is equally apparent in the *Game of Life*-variant *Game of Death*, which has a third or "zombie" state in which a dead cell comes back to life, given the right parameters (Hawick and Scogings 2011).

Much discussion of zombies in digital games has been as a central trope for the horror game genre, and some of these considerations are valuable here. Horror games including the more clearly delineated sub-genre of survival horror (Taylor 2009) – share a number of parameters which can be broken down to three levels: a referential level which associates objects and settings with horror (ghosts, zombies, demons, Hell); a representational level which makes them horrific (i.e. physically and sonically ugly, repulsive, threatening); and an orchestrational level which manipulates the context in which they appear (Pinchbeck 2009, 81-82). A gameworld that is designed and presented in this fashion already informs player expectations, signaling unpredictability, and a mixture of "hostile agents, whose ubiquity and highly formalized affordance relationships with the player rob them of any deeper emotional resonance, [and] forces whose motives are less easy to define, and who cannot be dealt with by the limited normal capacity of the avatar (shooting at them until they are removed from play)" (Pinchbeck 2009, 88). Taylor argues that many horror games even create unpredictable gameplay by gradually or intermittently subverting conventionalized game mechanics (2009, 55). Even when the dynamics of horror are not implemented as fully and radically, they are beneficial to the gameplay experience: By accepting a partially disempowered position towards the system and destabilizing accepted conceptual boundaries, horror facilitates an acceptance of system limitations and thus immersion (Pinchbeck 2009, 93). And more than other settings for digital games, horror contexts produce strong emotional responses through simple, yet satisfying outcomes of primitive actions (Perron 2009, 137–140). Krzywinska attributes the majority of these properties to the commercial nature of digital games (2008, 154): The conventions of horror are easily communicated, which allows developers to minimize their commercial risk by sticking to successful formulas, adhere to generic conventions, and to resort to elaborate branding strategies.

In this line of reasoning, zombies are a prototypical class of monsters whose properties make them especially well-suited as opponents within the game-world. The outward appearance of zombies provokes strong emotional reactions: "Be it in a novel, a film or a video game, the figure of the zombie is abject and reminds the still-living of the inescapable decrepitude of their own material parts, to the point of repulsion" (Perron 2009, 128). In addition, their limited situational awareness and motor capabilities are easy to model in digital games (Weise 2009, 251) and thus "reduce the need for complicated ecological behavior; however, keeping them anthropomorphized enables a basic project of intentionality onto them" (Pinchbeck 2009 86). Without the need for complex artificial intelligence, zombies pose a threat in themselves through their mindlessly determined hostility. "Through contamination and proliferation, the group itself forms a threatening body [...] They respond to the sole presence of the player character, which is an effective way to call for inter(re)activity" (Perron 2009, 127–128).

Existing research on zombie games has inquired into zombie-specific structures and subtexts. Weise (2009) uses Bogost's concept of procedural adaptation to discuss how games transform elements from zombie horror-films into gameplay. He focuses on the

depiction of zombies and the adherence to the "shrinking fortress" paradigm to judge the quality of such adaptations (Weise 2009, 252), yet comments on the ambiguous relationship between player, avatar, and "role model" characters in zombie movies, which act as a negative foil of unsuccessful in-game behavior. Carr (2009) uses methods derived from literary studies in a textual analysis of *Resident Evil 4*, highlighting this game's undercurrent of using the notion of work to distinguish between right and wrong. While her analysis exposes the game as ideologically charged, she refrains from condemning it, because it remains unclear whether the game primes players to accept or to oppose its political subtext (Carr 2009, 6). Geyser and Tshabalala (2011) extend Carr's logic to a politicized reading of Africa in *Resident Evil 5* where a homogenized, Othered Africa is depicted as a post-colonial ruin. By having 'generic Africans' turn into zombies, they argue, the game reaffirms Western stereotypes of Sub-Saharan weakness, disorder, and decay (Geyser and Tshabalala 2011, 12).

As these interpretations of zombie games show, the trope is inherently infused with a suggestive potential. As this potential seems to be independent from the way zombies are presented – even parodic or comedic uses of zombies still point to their culture-critical dimension, as apparent in the workingclass-as-zombie sequences of Shaun of the Dead (Edgar Wright, 2004) – it cannot be classified as metaphor or metonymy. Carr (2009) tries to account for this when she bases her analysis of Resident Evil 4 on Barthes' notion of a "the signifier par excellence because of its connotation, in the usual meaning of the term" (Barthes 1974, 17). A similar, yet more precise argument has been presented by Steven Shaviro, who identifies the zombies in George Romero's original film trilogy as an allegory. Referring to Walter Benjamin, Shaviro calls zombies inherently allegorical "[...] in the sense that allegory always implies the loss or death of its object. An allegory is not a representation, but an overt materialization of the unbridgeable distance that representation seeks to cover over and efface. [...] The 'living dead' emerge out of the deathly distance of allegory; their fictive presence allows Romero to anatomize and criticize American society, not by portraying it naturalistically, but by evacuating and eviscerating it. Allegory is then not just a mode of depiction, but an active means of subversive transformation" (Shaviro 1993, 86).

Understanding zombies as allegory in Shaviro's terms has far-reaching consequences, as this means that they always suggest, through their sheer existence (as something that shouldn't exist), an underprivileged Other, the process of its Othering, and the politics and rhetoric of denial that goes with this process. Extending this logic to digital games, the question arises whether the ludification of zombies ignores and disavows the allegorical dimensions, or whether rules and gameplay can actually work in favor of it – a question not yet broached in pertinent research. However, in order to fully understand the correlation of ludification and zombieism, it is necessary to have a clearer understanding of the development the zombie trope and its iconography have undergone in past decades.

HISTORY AND ICONOGRAPHY OF ZOMBIEISM

Zombies are unusual fictional monsters in that they have no roots in old-world mythology and have not originated in folk-tales or literature, but in film (Bishop 2010, 12-13). As such, zombies are part of a specific iconography which frames their irregular movement, their lust for human flesh, and their susceptibility to shots to the head in highly recognizable visual cues. At the same time, their appearance is not coded in a few artificial signifiers (like the vampire's pointed teeth, pale skin, and possibly black cape), but has a more complex semantics: "the zombie directly manifests the visual horrors of death: unlike most ghosts and vampires, zombies are in an active state of decay" (Bishop 2010, 21). The moving, yet decaying bodies "[...] are devoid of personality, yet they continue to allude to personal identity. [...] They are empty shells of life that scandalously continue to function in the absence of any rationale and of any interiority" (Shaviro 1993, 85).

The iconography of the zombie can be traced back to the emergence of the trope in popular culture. Dendle points out the deep-seated connection between imagery of zombies and their political interpretation since William Seabrook's travelogue The Magic Island (1929) and the early films, especially White Zombie (1932). It would be an oversimplification to consider these texts merely "inherently racist" expressions of an American fear of "slave uprisings and reverse colonization" (Bishop 2010, 13). Dendle argues that they have to be interpreted in the context of two coinciding historical events, the American occupation of Haiti from 1915–1934 with its sometimes violent resistance from the native population (Dendle 2007, 46) and the Great Depression's effect on the American working class. The emaciated, shuffling, hollow-eyed first generation of zombies produced two contradictory connotations. On the one hand, there is "a residual communal memory of slavery; of living a life without dignity and meaning, of going through the motions", while also the "burned-out souls standing in lines at soup kitchens or fruitlessly waiting in employment lines are zombies of a sort, shells of human beings" (Dendle 2007, 46). The visual resemblance of the supernaturally enslaved and the economically disenfranchised suggested a social relevance of the zombie trope and continue to do so.

In his seminal study of George Romero's original zombie trilogy, Steven Shaviro stresses how the special iconography of the zombie as a living corpse in an economic context logically leads to Romero's re-interpretation of the trope in the 1960s: "Whereas precapitalist societies tend to magnify and heroicize death, to derive grandeur from it, capitalism seeks rather to rationalize and normalize it, to turn it to economic account. Romero's zombies have none of the old precapitalist sublimity, but they also cannot be controlled and put to work. They mark the rebellion of death against its capitalist appropriation" (Shaviro 1993, 83). Romero's following movies shift the emphasis only slightly. The shopping mall setting in *Dawn of the Dead* (1978) makes the attack on American consumer-capitalism only more apparent by showing it as a place that "proves solid enough against zombies for a time, but is ultimately barren of meaning or broader

context" (Dendle 2007, 51). In the 1980s and 1990s, the iconography of decay shifts slightly again as zombies come to reflect repercussions of increasing life expectancy and fears of the young and healthy, that they, if poor, might be cannibalized for healthy organs by the old and rich (Dendle 2007, 52).

In the new millenium, the reality of global terrorism, war, and natural disasters gave the zombie trope new poignancy (Bishop 2010, 11-12), yet led to another shift in meaning and, for the first time since the original zombies of the 1930s, iconography. 28 Days Later (Danny Boyle, 2002) reinterprets zombies as a running, raging pack of hunters instead of the traditional "image of humanity stripped of passion, soul, or spirit. The zombie has become enraged, feral, frantic, and insatiable: it is a gutted, animalistic core of hunger and fury. It is not homogeneity – not the levelling of individuality – that scares us anymore, then, if this image is read symptomatically: it is rather the lack of control, dignity, direction that scares us. The contemporary zombie embodies a wanton, unfettered pursuit of immediate physical cravings, a fear of raw power" (Dendle 2007, 54).

Bringing the historical context full circle, the fast zombie as a representative of the accelerated, disembodied, aimless online consumerism has finally become completely ubiquitous because of the recent financial crisis. Returning to its roots in the Depression era, the zombie now "reflects the fears of a stagnant or contracting economy which has become incapable of the expansion necessary to support widespread prosperity and a social safety net" (Paik 2011, 7). A post-modern memento mori, the zombie shifts its concrete allegoric function in the economic domain, yet always remains a reminder of the possibility of slavery, poverty, and meaninglessness. This newest type of zombie iconography is exemplified in Robert Kirkman, Tony Moore, and Charlie Adlard's ongoing comic series The Walking Dead (Image Skybound, 2003 -). Instead of offering "one of the more curious allures of zombie films: their ability to fulfill survivalist fantasies" (Bishop 2010, 23), Kirkman's series depicts humanity as incapable of overcoming "the Hobbesian state of nature" (Paik 2011, 6). In a world where not zombies, but other survivors are the greatest threat, Kirkman's protagonists fail to restore order and ensure subsistence (Paik 2011, 11). The hopelessness zombie narratives have always flirted with, yet seldom fully embraced, is at the core of Kirkman's series, "in which major crises turn out to be no-win situations, death overtakes the most sympathetic and well-developed characters, and the protagonist Rick commits violent and morally repugnant actions in the name of protecting his family and friends" (Paik 2011, 9).

LUDIC ZOMBIES: CASE STUDIES

As we have seen, existing research shows that zombies all but enforce an allegorical reading of their state and behavior, and that while their iconography has shifted through the decades, it has remained connected to discourses of economic power (or the lack thereof). As also outlined before, the allegorical dimension of the zombie trope can come into conflict with gameplay. From these observations, we derive a number of operationalized research questions:

- Is the implementation of zombies highly specific (rotting corpse, inhuman movement, aggression, limited awareness), are they generic monsters, or yet something different?
- Which allegorical usage(s) can be identified in the representation of zombies and their simulation (fear of mind-control and dependence on capitalism (1930s); rebellion of death against capitalist appropriation (1968); disconnect between production, consumption, happiness (1970–80s); myth of the capitalist system's total self-regulation (post financial crisis))?
- Is there tension between zombie representation, zombie simulation, and possible player actions? In which ways are zombies gamified? Are they part of simplified gameplay in the arcade tradition (power-ups, bosses, highscores) or of more sophisticated systems?

Call of Duty: Black Ops

Since its 2008 entry World at War, the Call of Duty series of war-themed shooters features a zombie survival mode for one to four players. Here, the approach to zombies is completely utilitarian and uncritical, treating them exclusively in the sense of Krzywinska's 'zombies as ideal enemy.' The two zombie maps in Call of Duty: Black Ops (Treyarch, 2010) illustrate this very well: The first one, called "Kino der Toten", pits characters from previous entries in the series against Nazi zombies in a German movie theater, while the second one, called "Five", uses real-life politicians John F. Kennedy, Fidel Castro, Richard Nixon, and Robert McNamara as avatars and is set in the pentagon. Both are circular deathmatch maps, containing power-ups (such as a floating golden skull that grants the power to kill with one shot) and regularly spawning mini-bosses. Hits and kills are counted as a score, and although points are used to buy better weapons, their main function is to achieve high-scores, as the survival mode has no winning scenario – zombies will keep spawning in ever-increasing numbers. The result is a very traditional gameplay in the arcade tradition, which is further connoted as 'harmless fun' (and removed from the horror game tradition suggested by the blood-stained environment) by the avatars' humorous one-liners and the occasional goose-step marching zombie. Neither map invites exploration of the allegorical dimension of zombies, as oppression, poverty, and consumerism do not factor in those scenarios. While specific and traditional in their appearance and abilities, the zombies in the Call of Duty series are effectively reduced to their gameplay function. The only reason for the use of zombies seems to be their status as 'perfect enemies', and the oddball, lowbrow humor further discourages attempts at interpretation.

Left 4 Dead

The multiplayer shooter *Left 4 Dead* resembles the *Call of Duty* zombie mode to a certain degree, Although it makes less use of arcade elements, it is even more frenetic in pace,

creating "a grand deluge of visual and sonic information with its hundreds of zombies popping up in front of the gamers' eyes" (Perron 2009, 133). The game's speed is a major factor in downplaying the specificity and allegorical dimension of the zombies in *Left 4 Dead*. They are Pinchbeck's ubiquitous hostile agents without emotional resonance, merely a physical aporia. On the level of game mechanics, they are almost arbitrary monsters, as the important factors are their sheer number, the unstoppable motion toward the player, and a strategic mix of cannon fodder and special, mini-boss type enemies in the tradition of *Doom* (id software, 1993) (Haselton 2011, 24) or, fundamentally, even *Space Invaders* (Richard Rouse 2009, 16).

The notion of boss-zombies, found in many examples, is problematic with regard to the established zombie iconography, which assumes de-individuated equality. *Left 4 Dead* even stresses the individualized character of its boss-zombies in its "versus" mode, where two teams of players take turns in playing as humans or boss-zombies. This is less of a change in perspective than a gameplay variation within an asymmetric rule system (Haselton 2011, 25–26): players need to adapt their strategies and their teamwork to the fundamentally different affordances of human or zombie avatars.

If *Left 4 Dead* is slightly more conscious of the zombie iconography than *Call of Duty*, it is because it leaves some room for reflection in the safe rooms that form the starting and ending position of each level. Here, graffiti of past visitors give glimpses of survival in the zombie apocalypse, expressing anxiety, desperation, and black humor. Yet these short, random notes create, at best, a serious mood; they offer little incentive for emotional identification, and the settings – hospital, small town, airport, and farmland – are rather allusions to zombie movies than an invitation to interpretation. Considered as a whole, the game is a perfect example for Weise's notion of a "zombie simulator" (2009, 250–253): instead of attempting to simulate the zombie apocalypse, *Left 4 Dead* ludifies a zombie *film* experience, from the movie poster loading screens to the much-publicised AI-director. The result is a rather uncritical stance towards zombies, which neither promotes nor negates their allegorical dimension, but replicates it to some extent as a part of a ludic pastiche of classic genre films.

Plants vs. Zombies

PopCap's successful casual game *Plants vs. Zombies* (2009) has an even more ironic relationship to the zombie trope and removes it as far as possible from the domain of horror. It puts the player in the role of a survivalist homeowner who uses various specialised plants to repel waves of attacking zombies in a garden tower-defense situation. These zombies are mostly ironic signifiers pointing to other popular zombie fictions and games, including the traffic-cones put on zombies' heads to blind them in *Dead Rising* (Capcom 2006). The zombies of *Plants vs. Zombies* are exceptional in their visual and functional diversity: they have retained some verbal ability ("Brains!" quoting the zombies in John Russo's *The Return of the Living Dead*, 1985), some have acrobatic skills (pole-vaulting zombies), some dance disco, and others use shields and "found"

armor to protect themselves, all of which further contributes to the ironic mode of the game. The final boss, Dr. Zomboss, is an evil-genius type zombie, who controls the other zombies and thus reminds us of the zombie sect leader Matthias in the classic survivalist epic, *The Omega Man* (1971) – which, like the novella *I am Legend* (Richard Matheson, 1954) on which it is based, blurs the boundaries between zombies and vampires. *Plants vs. Zombies* alludes to other games and their rules in a similarly ironic, playful, genrebending fashion, e.g. in the puzzle level "Portal Combat" which refers to the gameplay of *Portal* (Valve, 2007) and the name of *Mortal Kombat* (Midway, 1992).⁴

Especially the allusions to other games gives *Plants vs. Zombies* a certain degree of self-referentiality and self-awareness, and handling zombies as an intertextual locus of diverse influences adds to their utilitarian dimension (which is also clearly present). The zombies are not individuated but divided into many different classes, which are determined by objects of work or leisure, remnants of their former consumerist lifestyle to which they cling even after death. The only still-human character in the game, apart from the player-character that is never shown, is a purveyor of survivalist equipment from the back of his SUV, Crazy Dave. While on the one hand spoofing survivalists as loony doomsday "preppers", Crazy Dave's range of goods and the player character's house and garden are, on the other hand, markers of necessity and subsistence, as are the plants which secure the player character's survival. The game thus creates an opposition of post-consumerist life of individuals and the shambling un-life of former consumers, and even if it does not explicitly invite such an interpretation, it does preclude it in any way.

Resident Evil

Capcom's *Resident Evil* series has been the focus of much research as a prototypical survival horror game, and two of the more recent iterations have been used, as mentioned before, in papers dealing explicitly with the zombie trope.

Zombies are a central element of the *Resident Evil* franchise, and their de-individuated, often deformed bodies conform to Krzywinska's model of the ideal game enemy. While the first three games adhere strongly to 'survival' gameplay mechanics, giving the player too little ammunition to effectively battle zombies, later iterations have shifted towards the shooter model, privileging fight over flight. The shift in game mechanics thus emphasizes the role of zombies as 'legitimately killable' opponents. Yet at the same time, as Carr has shown, the distinction of zombies and humans becomes increasingly blurry. In *Resident Evil 4*, the avatar gets into conflict with healthy humans, so that the physical threat of the zombie horde is partially replaced by an "anxiety in terms of difference and control, and loss of control" (Carr 2009, 6). In *Resident Evil 5*, the zombie hordes even retain considerable intelligence and communicative powers. In the market scene near the beginning of the game, the zombies are instructed or riled up by a political agitator with an electric megaphone. Iconographically clearly connoting resistance against a powerful political oppressor, the agitator suggests that this crowd is not a mindless mob of bloodthirsty zombies, but has a legitimate socio-political goal.

As existing research has shown, this political dimension remains oddly ambivalent and full of reactionary, xenophobic overtones. Carr notes that "the possessed farmers of *Resident Evil 4* are throwbacks to an earlier era [...], the zombified workers of *White Zombie*" (2009, 5), while Geyser and Tshabalala have demonstrated that *Resident Evil 5* offers a debasing portrayal of Africa as a continent united by dysfunctionality and weakness (2011, 12). The overarching plot of the series puts this somewhat into context: The spreading of the zombie virus from an American research lab to a whole city, then to Europe, to Africa, and finally (in part 6) across the globe, is a metaphor for the radically expansionist politics of big corporations and their will to worldwide (market) dominance. Umbrella's victims, from poisoned animals to zombified employees, are allegorical of the feeling of helplessness modern mega-corporations instill in individuals.

That this grand scheme of social critique largely falls flat stems from the utilitarian approach to zombies in the series. The semi-sentient zombies of *Resident Evil 5* are merely a more challenging enemy type, as are the many mini-bosses and bosses. The game is full of often ludicrous power-ups – like the ability to incrementally increase the ammunition capacity of all weapons, even 6-shot revolvers, without any change in appearance –, which are bought with gold and jewelry scattered throughout the game world. By having boss enemies drop high-level loot, the game further commodifies the zombies, thus effectually disavowing any critique of capitalism the zombie trope might otherwise evoke.

Fallout 3 (the Tenpenny Tower quests)

In the *Fallout* series of role-playing games, zombies – or, as they are mostly called in its diegesis, ghouls – are much more than simply a class of enemies. There are no boss zombies, no ludicrous power-ups, and no points awarded for the killing of zombies. Instead, the series uses them to confront the player with questions of racism and fear of the Other. This results mostly from some slight shifts in their rationale and behavior. The ghouls in *Fallout*'s post-apocalyptic wasteland are heavily irradiated survivors of nuclear war, whose bodies are disfigured, giving them the appearance of living corpses. Most of them behave and feel fully human, exhibit no lust for human flesh or extreme aggression, and are rather often highly intelligent. There is, however, the danger of devolving into mindless feral ghouls, which behave in accordance with established zombie conventions, i.e. are semi-aware, yet extraordinarily aggressive, and attack humans on sight. The difficulty of distinguishing both types of ghouls as well as their equally repelling appearance make all ghouls suspicious to humans. As they are met with mistrust, fear, even hate, ghouls in the *Fallout* series form a new, heavily othered ethnicity.

The Tenpenny Tower quest in *Fallout 3* is one of the most intricate examinations of zombies in any game to date. The human inhabitants of Alistair Tenpenny's luxury hotel will not share their exclusive living conditions with anyone, especially not with ghouls, whom they generalize as dumb, unhealthy, and dangerous. The player is free to side with the ghouls or the humans, and can even cross (and double-cross) both sides, which

arguably is the intended outcome of the quest, as it produces the most complex and long-lasting effects. If the player sides with the ghouls, they will move into Tenpenny Tower, evicting everybody unwilling to share the place with them. Should the player return some time later, she will find the house occupied exclusively by zombies, and after some questioning, will find out that there was a falling out between the parties and that ghoul leader Roy Phillips has fed all remaining humans to his band of feral ghouls.

The Tenpenny Tower quest alludes to the racist subtext of *Night of the Living Dead* and connects it to this era's dominant allegory, the threat that death poses to consumerism. When denied the opportunity to partake in the commercial bliss of Tenpenny Tower, the disenfranchised threaten to resort to open violence. By marching on the Tower (the symbol of wealth and commodified happiness), the zombie-looking (yet not zombified) minority consciously decides to enact the stereotypical zombie-behavior that humans associate with their appearance. To further press the point, their weapon of choice is a group of feral ghouls whom they plan on smuggling into the building to drive out or kill its human inhabitants.

Considering this quest as a mere sequence of procedural elements casts it in an ambivalent light. While it is obvious that the human segregation policy is in no way endorsed, the quest conveys its message – all races are equal – by showing that they all are equally xenophobic, segregationist, and morally questionable. All other parameters equal, the ghouls are even more distinctly reduced to their status of a disfigured, ugly Other that precludes full empathy. Appropriating the zombie trope for an argument about ethnic equality might seem like a fundamentally flawed strategy. Only when we consider not only the scripted sequence of events triggered by the player as a mere agent of a system, but take her exposure to this morally ambivalent situation into focus – the marker of ethically relevant games (Sicart 2009, 49) -, the quest's full potential becomes tangible. In the most peaceful solution to the quest, the player can avoid bloodshed by convincing the human tenants that they cannot stop the ghouls from living in Tenpenny Tower. This is, right from the start, a small victory: An open confrontation can be avoided, but only by threats of violence, by driving people from their home, and by portraying the ghouls as the unstoppable, malevolent force the humans suspect them to be. At the end of the quest, this compromise seems to have been worthwhile, as the two groups come to a living arrangement. Only after this (positive) conclusion of the quest, an unspecified fight takes place and leads to the killing of the human tenants. By its scripted nature, the event itself will always happen when the player is away from Tenpenny Towers, so as to both factually and symbolically precluding any influence on the situation. Yet when the player finds out about what happened after she left, she is implicitly confronted with the moral decision of whether or not to take action against the ghouls as a group or their leader Roy Phillips as an individual. Both humans and ghouls in Tenpenny Tower are portrayed as unethical, yet it is the player's reaction to this that decides about her own morality, thus actually using the gameplay possibilities of a roleplaying game to further explore the allegorical dimension of zombies.

DayZ

DayZ is a zombie game in which zombies are, at the same time, diegetically crucial and of significantly lesser importance for the gameplay. Developed by Dean Hall as a usercreated modification for ARMA2 (Bohemia Interactive, 2009), DayZ is an open-world, multiplayer zombie survival simulation. Its open-endedness and utter lack of quests form a stark contrast to traditional survival horror games. The implicit goal of the game is to survive in a post-apocalyptic wasteland, a huge, open world (225 km2) where the player can roam freely. The avatar needs food and beverages, shelter and medicine, and the scarcity of these resources inevitably leads not only to contact with zombies (who stay close to farms and population centers), but eventually to conflict with other players. The zombies are not individuated but fairly nondescript, except for their movement; some run, some scamper on three or four legs, and some crawl. The zombie threat becomes easily managed and more of a nuisance once the player has mastered a few evasionary tactics (crawling, hiding, evading) and acquired basic weapons (which have to be used with caution, as gunfire attracts more zombies). The real threat, even to experienced players, is to be caught off-guard by another player, or to simply fall down a ladder, break a leg, and starve to death. And dying in DayZ means starting from scratch, with nothing but a flashlight, a bandage, and some painkillers.

Although *DayZ* resembles *Fallout 3* in the use of an open world, its landscape of the fictional East-European country Chernarus is even more off-putting and dreary than the other game's post-nuclear wasteland. Chernarus is the setting of *ARMA2*, created as a realistic depiction of a run-down former Soviet satellite state, yet it makes for an effective makeshift zombieland where life is short and brutal. While the farmlands, forests, and coastlines have a certain sublime quality, the bland farms and especially the architecture of the sordid industrial cities are devoid of luxury or entertainment (except for the occasional pub or orthodox church). What makes this environment even more nightmarish is the fact that the player needs to navigate it realistically: Even after finding a compass and a map (which will take a while), one still needs to know how to use these tools. Bereft of an automatically updated mini-map, the player feels lost and disenfranchised on a gameplay level, and the volatile and consumable equipment enforces a re-appreciation of simple amenities that is far removed from the consumerism critiqued in the zombie allegory.

To face the Chernarus wilderness alone is a very convincing lesson in dreary struggle for survival, whether desperately trying to shake off the pursuing zombies, or when scavenging for hours trying to find food or weapons. Meeting other humans in *DayZ*, and this has clear socio-political ramifications, is an unpredictable event. Without any rules of conduct, the player-vs-player dynamic often produces betrayal over meager resources and senseless killings. Through this simple social dynamic, the game effortlessly teaches a lesson in the darker sides of human nature that single-player horror games have no chance to match, yet one that is akin to the zombie trope in Kirkman's *The Walking Dead*.

CONCLUSION

Our survey of zombies in games from several genres has shown that they are not one homogenous horde. The allegorical dimension and the iconography of the zombie trope are present in all games. *Call of Duty: Black Ops* disavows this heritage by using zombies as re-contextualized shooting gallery props and signals through humor and adherence to simple game mechanics that engagement with the allegorical level is not intended. *Left 4 Dead* similarly foregoes uneasy questions by foregrounding its conception as a pastiche of zombie movies. *Plants vs. Zombies* acknowledges the allegorical tradition, yet does so ironically and thus sidesteps serious reflection. The *Resident Evil* series tries to engage with the allegorical, yet does so problematically. *Fallout 3* and *DayZ*, however, demonstrate that games can largely forego the "ideal enemy" scenario, instead embedding zombies in a gameplay that encourages ethical reflection and expresses ludically the core elements of the zombie allegory, the commodification of human bodies and the threat of consumerism to human culture.

ENDNOTES

¹ Of the 641 zombie movies listed on Wikipedia, 413 were released between 2002 and 2012, with the Internet Movie Database showing similar numbers (465 out of 620). According to these figures, between 64 (Wikipedia) and 75 (IMDB) percent of all zombie movies have been released in the first ten years after 9/11 2001. In digital games, the number of zombie-themed publications has also changed, yet to a significantly lesser degree. Giant Bomb, a games website with an elaborate set of contextual tags, lists 566 games containing zombies, of which 396 (i.e. 70 percent) have been released between 2002 and 2012. However, 64 percent (12,806 out of 20,037) of all games listed on Giant Bomb were released after 2002. Comparing this ratio – 70 vs. 64 percent – to that in movies – 75 vs. 31 percent (IMDB lists 36,463 out of its 117,464 movies as released after 2002) – it is apparent that the increase in zombie-themed games is far less pronounced than that in similar films, perhaps because zombies and their uses have been a staple of game content for most of game history.

² Zombies have also garnered much attention in technical papers dealing with effects of the Uncanny Valley effect, which, while detrimental to the implementation of human characters in games, works in favor of ludic zombies (Tinwell et al. 2009, 5).

³ Gunn and Treat (2005) offer an overview of the lesser known examples of zombie fiction in the 1940s and 1950s.

⁴ Some allusions had to be removed for copyright reasons. Most notably, the original dancing zombie, modeled on Michael Jackson's appearance in the "Thriller" music video, was quickly replaced by a more generic disco dancer zombie.

⁵ The game awards experience points for the killing of zombies, but it does so for virtually every action.

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