

Stina Attebery

Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games *Pikmin* and *Pokémon*

Video games create new relationships between animals and humans by imagining these relationships reconfigured in an entirely digital space. Many games explicitly explore biological issues in their gameplay and premise, structuring a player's success around her ability to manage resources and modify the digital "bodies" of her avatar or other characters under her control. This is particularly true in the sub-genre of strategy games. In a typical third-person perspective strategy game, the player adapts to changing conditions in her environment by exercising control over resources coded as biological, resources that often include digitally rendered human, animal, or alien bodies. The emphasis on biological management in such games foregrounds issues of human and animal biopower by requiring the player's active participation in creating and maintaining biopolitical structures and relationships. I examine two games series — the *Pokémon* and *Pikmin* franchises — that complicate the biopolitical resource management typical of strategy games by focusing on the biopower of animal-like digital creatures who are simultaneously resources and companions for the human player and her avatar. In this way *Pokémon* and *Pikmin* approximate the "messy coshapings" that Donna Haraway writes about in her accounts of companion species relationships, but these relationships occur within a digital environment where this messiness is communicated entirely through the immaterial technologies of gaming.

These games simulate biology differently, as *Pikmin* emphasizes the way human affection for animals, even under biopolitical relationships, can challenge the ease with which we can exploit a resource that we have bonded to, while the *Pokémon* games, especially in light of some recent controversy over their depiction of animal fighting, have tried to reinforce the idea that the trainer/Pokémon relationship is only one of affection, ignoring the other structures of dominance and control behind the training economy presented in the games. These games explore the complexities of human-animal relationships that define animals both as economic resources and as companions, and both games suggest ways of rethinking the relationship between biological materiality and digital imaging in video games.

As computer-generated images of animals, the creatures in *Pokémon* and *Pikmin* resemble the varieties of animal cyborgs that Donna Haraway introduces in her

“Cyborg Manifesto” and continues to explore in her later writings. Animals are central to Haraway’s definition of the cyborg, as she explains that “the cyborg appears in myth precisely where the boundary between human and animal is transgressed” (“Cyborg Manifesto” 152). Many of Haraway’s key examples of companion species relationships – cryopreservation of pets, digital records of endangered species, Crittercam tv, etc. – feature animal-human relationships mediated and transformed through technology, but she does not discuss what it means when the animals we interact with are entirely digital. In fact, it is crucial for Haraway that the animal cyborgs found in technocultural companion species relationships are material rather than digital. Building on Merleau-Ponty’s term “infoldings of the flesh” as a replacement for the term “interface” to describe encounters with and through technology, Haraway argues that “all the infoldings can occur only in the fleshly detail of situated, material-semiotic beings” (*Species*, 263). It is important for the coshapings of companion species to interact with a “real [animal]” who is “mundanely present” and not a “fantasy projection of [a human] self” (221). As digital images of animal-like species, the Pokémon and Pikmin are excluded from this discussion of technocultural animals, since under this rubric the only fleshy infolding in these games can be between the material technology of the game console and the body of the human player, leaving animal bodies and biopower out of the equation. While Haraway’s separation of material animals from digital animals emphasizes the value of embodiment in technocultural species coshapings, the digital creatures in these games function as more than just fantasy projections, complicating the material/digital binary that Haraway constructs.

While Haraway’s discussion of animal cyborgs does not allow for a consideration of our relationships with entirely digital animals, other scholars have found ways to connect biological and digital life. Ursula Heise takes Haraway’s argument a step further by questioning what relationship digital simulations of animals could have to the “fleshy,” embodied animals that Haraway focuses on. Heise notes that “robotic or electronic animals have been discussed very little in studies of cyborgs,” despite their prevalence in technoculture (59). Heise is interested in the connections between digital animals and environmental change, looking at the ways digital animals are presupposed to replace vanishing material species and questioning whether these digital animals can be used for other purposes. Building on Akira Mizuta Lippit’s argument that “modernity can be defined by the disappearance of wildlife from humanity’s habitat and by the reappearance of the same in humanity’s reflections on itself: in philosophy,

psychoanalysis, and technological media” (Lippit 2-3), Heise suggests that extinction is the driving force behind this vanishing animal presence and impulse to replace animals with digital and other artificial lifeforms. Although many theorists raise concerns that digital animals and artificial life research constitute a “devaluation of the body and embodied life,” Heise argues that this critique does not adequately address the nuances and possibilities of digital animals (67).¹ She concludes that “technologically generated life-forms ... need not be understood as a threat” because the animal cyborgs created in digital spaces lead us to reconsider the relationships we have with animals in the material world (77). Animal cyborgs can encourage us, “through the discovery of otherness in our own technological creations, to the recognition of and respect for the nonhuman others we did not make” (78). Using Heise’s reformulation of the animal cyborg, the digital animals of *Pikmin* and *Pokémon* can be situated alongside embodied animal species when considering the bioethics of human-animal relationships under technoculture.

The challenge, then, is to define how these digital and biological animals are situated alongside each other. Like Heise, I want to suggest that the digital animals featured in video games such as *Pokémon* and *Pikmin* do not simply serve as replacements for biological animals, but instead become part of a more complex network of biological and informational life. Jussi Parikka points out in his book *Insect Media* (2010) that animals — particularly, for Parikka, insects — have an intimate and longstanding relationship to the similar nonhuman world of media and representational technologies, arguing:

animals live in and of media: their world is by definition formed of the constant interactional sensing, movement, and memory of their surroundings, much as the media environment in which we live is constituted of our ethological bodies interacting with bodies technological, political, and economic ... we do not so much have media as we are media and of media. (xxvii)

Parikka’s Deleuzian meditation on these insect technologies connects artificial and biological animals together as similar “nonhuman forces expressing themselves as part of this media assemblage of modernity” through the expression of “intensity,” “assemblage,” and “diagram,” three concepts that he uses to develop the idea that animal affects can be captured and incorporated into media as part of a process of becoming-animal that allows for the deterritorialization of human perception from the limitations of the human body (xx-xii). Insect technics “enables ... a becoming-insect of

humans with their tools, a new approach to and appreciation of the distributed affect worlds of social insects” (29), an idea that situates the animals present in digital gaming alongside biological animals through the experiences of the human gamer.

When it comes to video game technologies, Parikka connects digital game studies to surrealism and film, finding that digital games create “metamorphic modes of engaging with the surroundings,” which allow for the deterritorialization of the human subject (89).² These metamorphic transformations of the human into the nonhuman/animal are an important feature of games that place the human player into strange and immersive worlds through game design elements such as first-person perspective, but *Pikmin* and *Pokémon* are both games where the human player clearly remains human as she learns new ways of interacting with animal subjects, instead of inviting the human to become-animal. These games emphasize the biopolitical relationships between humans and animals instead of eliding human and animal identity.³

Instead of defining human-animal-technology assemblages through the idea of becoming-animal by interfacing with a digital game, *Pikmin* and *Pokémon* operate similarly to Eugene Thacker’s model of biological exchanges. This is partly because both games depend on a visual interface that frames the player’s relationship to these digital animals through statistics and schematics. Thacker, in his book *The Global Genome* (2005), considers the relationship between materiality and informatics developed in contemporary biotechnology and genetics research. Arguing that bioinformatics “strategically [brings] together the informatics and the biological in such a way that it can accommodate both the material and the immaterial, both medical benefit and economic value” (53), Thacker outlines a system of biological exchanges where “*biology is information, and that information is both immaterial and material*” (21, emphasis in original). Biological exchanges “conceive of ‘life itself’ as informatics, and in doing so *biological exchanges informationalize without dematerializing*” (11, emphasis in original). This elision of material biological bodies and digital information occurs through the processes of “encoding, recoding, and decoding” in which biological information such as genetic codes and other data is transformed into a digital format through both software technologies and economic categories such as intellectual property, circulated as bioinformatic data, and then decoded as “biological information ... used, consumed, or incorporated into the body” (xx-xxi). This process, for Thacker, is as much a part of economics as it is a function of media technologies (xxi), but it suggests a more

Stina Attebery – “Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games Pikmin and Pokémon”

complicated ongoing relationship between biology and digital technologies than Lippit's idea that biological animals are simply being replaced by media images.

I argue that games such as *Pikmin* and *Pokémon* that operate in a biopolitical register incorporating bioinformatic representations of population statistics alongside visual representations of affective animals relating to biological animals through a similar process of encoding, recoding, and decoding. These games encode the biological species relationships found in pet keeping, animal breeding and genetics, and animal training into a fantastical digital setting, recode these interactions as species encounters between the human player and these new digital animals, and invite the player to decode these encounters by incorporating their experiences with the *Pikmin* and *Pokémon* creatures into their interactions with biological animals. This process of decoding digital companion species encounters into biological species relationships becomes more difficult and more complex when, as Heise points out, biological species are increasingly vanishing due to extinction and the instrumentalization of animal populations, but the vulnerability of biological animals in contemporary times makes this process more crucial. These two game franchise highlight the importance of maintaining human-animal relationships in the face of environmental catastrophe by creating shared conditions of vulnerability between digital and biological animals, albeit with varying success.

The emphasis on vulnerability and affect in these two game franchises is important for encoding and recoding between digital animals and their biological analogues because these connections are being formed through depictions of domestication and biopower. Parikka finds insects productive for discussing media technologies because, as he argues, "there is a curious, nearly ephemeral side to insects. They are probably furthest from the image of domesticated animals that have been contained and rationalized as part of the pet culture of modern society" (xxxiv), but modern pet culture is an integral part of the technologically mediated biopower depicted in *Pikmin* and *Pokémon*. Yi-Fu Tuan argues in his book *Dominance & Affection* (2004) that pet keeping and domestication serve as a method of instrumentalizing animals, describing "how tempting it is for the powerful to reduce their pets (plants, animals, and humans) to simulacra of lifeless objects and mechanical toys — to the sort of frozen perfection that only the inanimate can attain" (4). While he makes a compelling case for the tendency in modern society to commodify animal subjects through human expressions of both dominance and affection, in light of the close associations between biological and digital life that I have outlined, Tuan's claim that breeding or training an animal is a way of rendering it "inorganic" becomes more ambiguous (168, emphasis in original). Tuan

overlooks the potential for more disconcerting and lively companion species relationships opened up through this process of creating shared vulnerabilities between biological animals and their simulacra.

These potentially beneficial companion relationships are more thoroughly explored by Haraway in her discussion of lively capital, biopolitical medical discourse, and the Marxist economic language of “trans-species encounter value” (*Species* 46). “Lively capital,” for Haraway, involves both biopolitical exploitation of animal labor and bodies and the development of disconcerting human/animal “coshapings” through these entanglements of humans and animal within biocapital (63). Being aware of the ways humans shape and are shaped by our animal companions — of how “we can see how something more than the reproduction of the same and its deadly logics-in-the-flesh of exploitation might be going on in ... ‘making companions’” (65) — shouldn’t lead us to overlook the complicated ways animals function in a capitalist system. However, emphasizing the ways these relationships can coshape humans and animals, whether biological or digital, can productively complicate the exploitative conditions in which these relationships are formed. *Pikmin* and *Pokémon* are useful examples to bring into this discussion because, despite taking place in entirely digital worlds, these games allow the player to interact with animal-like creatures under biopolitical apparatuses that place economic exploitation alongside companionship. By emphasizing the vulnerability of digital animals under a system of biopower, these games invite the player to decode her experiences managing vulnerable digital creatures into a more ethically engaged relationship with biological domesticated animal life.

Coshaping Animal Life in *Pokémon* and *Pikmin*. *Pokémon* has been around since 1996, and although it began as a video game series, the franchise has expanded to include anime, manga, toys, books, and other merchandise and media.⁴ However, role playing games are central to *Pokémon*’s success and important for defining the way the Pokémon (“pocket monsters”) and their “trainers” interact. The *Pokémon* video games are strategy role playing games based on creator Satoshi Tajiri’s childhood interest in collecting and “battling” insects by encouraging the animals in his collection to fight each other, drawing on both a personal and cultural nostalgia for a pre-industrial Japanese countryside (Allison 388). Most of the *Pokémon* games share a visual style, as the player explores a flattened, two-dimensional map screen until she triggers a cut scene or a Pokémon battle, where the camera is positioned behind the battling Pokémon who is

Stina Attebery – “Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games Pikmin and Pokémon”

surrounded by a set of tactical readouts showing the Pokémon's health and skill level alongside the available trainer commands. Since the release of the 2013 games *Pokémon X* and *Pokémon Y* the game worlds have been rendered in 3D, but the game interface and visual aesthetic carry over. All of the *Pokémon* games also have a similar premise. The player receives her initial Pokémon companion from an institution in her hometown (often from a Professor who studies Pokémon at a Pokémon Research Lab). From there, the player sets out to collect different kinds of Pokémon and compete with other trainers in *Pokémon* "battles," eventually winning the game by becoming the best Pokémon trainer in the world — the "Pokémon Master" — and by cataloguing new species of Pokémon in the "Pokedex" provided to her by the relevant scientific author.

A number of people have pointed out the way consumerism drives the *Pokémon* franchise, but no one has considered the biopolitical or animal studies implications of the series to date. *Pokémon* is a series caught up in a particular child economy of immaterial affective and imaginative labor, but by reading these games as responding to debates surrounding animal rights and animal biopower I am tackling a set of issues that has been overlooked by other scholars writing about these games. As Joseph Tobin's edited collection on the *Pokémon* phenomenon called *Pikachu's Global Adventure: The Rise and Fall of Pokémon* demonstrates, scholars interested in exploring the economic implications of the *Pokémon* world tend to focus exclusively on the real world global economies and socio-political issues surrounding *Pokémon* rather than looking closely at the economic system presented within the game itself. These approaches tend to be deeply ambivalent in their attempts to reconcile the potential agency of the child consumers of *Pokémon* cards, games, and merchandise with the status of Nintendo as a corporate superpower. The best of the articles that take this approach are Anne Allison's study of the way the Pokémon's "cuteness" is commoditized differently depending on the cultural context (382) and Max Haiven's analysis of how the "playbour" of the child consumer, using Julian Kücklich's term (qtd in Dyer-Whitherford and De Peuter 527) becomes a key feature of the way imagination gives meaning and direction to *Pokémon* games and merchandise. In considering how the player is coshaped by the experience of interacting closely with the *Pokémon* as commodities and companions, I am departing from this scholarly trend by directly engaging with *Pokémon* as a text instead of a cultural phenomenon.⁵ The game rewards players for collecting a large variety of species and for using these species effectively in fighting situations until their collection of Pokémon are numerous enough and sufficiently well trained to defeat all of the in-game opponents.

Rather than discussing the entirety of the *Pokémon* franchise, I will be focusing on a recent controversy involving two games — *Pokémon Black and White* (2011) and *Pokémon Black and White Version 2* (2012) — that make the biopolitical apparatus of this game series hypervisible by pitting the player against a series of opponents involved with an animal liberation movement called “Team Plasma.” Team Plasma travel the game world holding rallies and calling for the liberation of all Pokémon from their owners, often enforcing their message by bullying Pokémon trainers and stealing their Pokémon. As if this pro-animal movement wasn’t painted as villainous enough, they are revealed at the end of the game to be merely a front for a mastermind named Ghetsis, who wants to “liberate” Pokémon from other trainers so he can consolidate power over the Pokémon, declaring that “It would be perfect if we were the only ones who could use Pokémon!” This presentation of animal rights activists as either naïve dupes or hypocrites turns what could be a nuanced self-critique into a very reactionary attempt to justify some of the more troubling elements of the *Pokémon* series.

This narrative choice has been taken up and challenged by the People for the Ethical Treatment of Animals in their two parody Pokémon games: *Pokémon Black and Blue* (2012) and *Pokémon Red, White, and Blue* (2013). PETA has recently put out an entire series of these parody games challenging popular game franchises for depicting animal suffering, although most of these parodies are misguided and misrepresent the premise of the games that PETA is trying to critique.⁶ However, the two PETA Pokémon games are surprisingly adept critiques of *Pokémon’s* depiction of a companionate animal training relationship which, on closer consideration, resembles dogfighting as much as dog training.

The first PETA parody game, *Pokémon Black and Blue*, takes up this issue in a direct response to the representation of animal rights groups in *Pokémon Black and White*, and was released as a protest of this particular game during the promotion for the sequel game *Pokémon Black and White Version 2*. The game features characters from the first *Pokémon Black and White* game along with the main characters of the *Pokémon* anime, Ash and Pikachu. Instead of controlling the human trainer as an avatar, the player gets to directly control Pikachu as he leads other recognizable (and trademarked) *Pokémon* characters in a campaign to fight against their human masters. While the political message behind these games becomes a little heavy handed at times, I am interested in the way these parodies are placed in dialogue with the official *Pokémon* games, which

Stina Attebery – “Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games Pikmin and Pokémon”

after this point attempt to be more conscious of the implications of the human-animal relationships depicted in the games themselves.

The first *Pikmin* game, released by Nintendo in 2001 for the GameCube console and later re-released for the Wii, is a colorful strategy game marketed for children that is set on Planet PNF-404, a planet revealed to be a futuristic Earth where the human population has mysteriously vanished and been replaced by minuscule alien creatures that resemble hybridized plants and insects.⁷ Although the species of *Pikmin* that the player encounters are more uniform in design than the *Pokémon*, which tend to resemble a variety of animal species, *Pikmin's* creator Shigeru Miyamoto worked on the original *Pokémon* games and there are deliberate similarities between *Pokémon* and *Pikmin* both in their names and in their affective cuteness. Miyamoto is an interesting game developer to discuss in the context of human/animal coshaping, as he has stated that he hopes that games can allow players to have the disorienting experience of encountering unfamiliar and alien animal Others, comparing the act of playing an immersive game to a childhood memory of reaching into a stream and feeling a fish brush against his hands (Paumgarten 1). This interest in the similarities between natural and digital worlds is borne out by his life and career, as he is responsible for creating games such as *Nintendogs* (2005), an animal raising simulator, at the same time that he took up dog breeding as a hobby. *Pikmin* benefits from this more nuanced extension of animal lives into game spaces, although these nuanced representations of biopolitical relationships between species are deliberately rendered as much more darkly whimsical and disturbing than in the *Pokémon* games.

The narrative of *Pikmin* follows the avatar character Olimar, an inch-tall alien scavenger who has become stranded on PNF-404 after his spaceship collides with an asteroid. Olimar cannot survive for more than thirty days in the toxic oxygen-rich atmosphere of this future Earth, but he must search for the scattered pieces of his spaceship before he can escape. The player is able to accomplish this task by enlisting the help of the native alien population of *Pikmin* and the gameplay consists of the player organizing these creatures into groups and using them as a labor source to solve puzzles and gather together the pieces of Olimar's ship within the 30 day time limit to achieve the "good" ending of the game where Olimar is able to escape the planet and return to his home.⁸ The game's multiple endings, which are based on the number of resources the player is able to scavenge, are important because they give the player options for how deeply she can invest in the biopolitical apparatus of the game, since, unlike in games that only have one ending, the player of *Pikmin* is not denied any of the game's content if she

chooses to avoid the main tasks set to her in favor of simply exploring the game world and interacting with the Pikmin.

Unlike *Pokémon*, in which the player interacts with a static visual overview of the game world, the camera movement and interface for *Pikmin* is much more disorienting. The player is still looking down at her avatar Olimar as she moves him across the screen, but the camera will suddenly rotate as Olimar faces different directions, making it more challenging to achieve the precision necessary for guiding Pikmin to do specific tasks. *Pikmin* also alerts the player to the fact that she cannot see and fully control what happens to the Pikmin when they are out of her field of vision. At many points in the game, the player can give Pikmin a task and wander away to a different portion of the map only to receive the message that “Pikmin are dying somewhere!” as they encounter an unexpected obstacle or predator. While the static field of view in *Pokémon* matches this game’s interest in exerting total control over the Pokémon and their environment, *Pikmin*’s shifting camera movement and emphasis on unseen, off-screen action shows the player how little she can perceive and control her environment. Even at the level of camera field of view the player’s interactions with the Pikmin are messier and more ethically engaging than her interactions with Pokémon despite the similarity of the games’ premises, requiring the player to adjust her strategy as she is coshaped by her Pikmin companions.

The first *Pikmin* game was popular enough for a sequel to be made in 2004, and both games were rereleased for the Wii in preparation for the third installment in the series in 2013. *Pikmin 3* returns to the Robinsonade plot of the first game, following three new characters — Alph, Charlie, and Brittany — as they interact with familiar and new species of Pikmin to repair their damaged spaceship and search for edible alien sources of food to help stave off a famine on their home planet. The second game in the series is structured a little differently. *Pikmin 2* picks up where the first game left off, with Olimar returning to his home planet of Hocotate to discover that the company he works for is in debt after a valuable shipment was devoured by a “ravenous space bunny,” and he must return to the Pikmin planet to search for resources to sell to save the Hocotate Freight Company from bankruptcy. This game replaces the Robinsonade narrative and time limit of the first game with a plot focused around the character’s role as an interplanetary capitalist, organized around Olimar’s quest to find discarded

human artifacts and create “sales pitches” to market these scavenged artifacts on Hocotate.

The scholarly work on the *Pikmin* series, like that on *Pokémon*, has primarily focused on the role of the child gamer instead of on the biopolitical implications of the game itself, although the scholarly work done on *Pikmin* tends to take a more pedagogical approach, overlooking the series’ invitation for child gamers to take on the role of capitalist entrepreneurs. The most notable of these analyses is games scholar James Paul Gee’s claim that *Pikmin* is an excellent example of video games’ potential to facilitate learning and decision making. He uses the *Pikmin* series to discuss how video games can help children develop problem-solving skills by “using situated meanings and the design grammar of the game to understand and produce meanings and actions” (Gee 10). While I agree with Gee’s argument that games like *Pikmin* can be very valuable tools for developing problem-solving skills in a fun context, I find his praise for games that allow the player to “feel like active agents (producers) not just passive recipients (consumers)” (30) and “feel a sense of control” over their world (10) troubling because it reinforces a neoliberal capitalist mentality, especially in a set of games that are so explicitly following the logic of biocapital. Although Gee sees the *Pikmin* series as a beneficial learning game for younger players, he does not spend time analyzing how the gameplay affects what is being learned, namely a system in which animal labor and life is controllable and expendable. Considering how the *Pikmin* are rendered within the game as a specifically animal-like labor force allows me to better address which skills the player is learning and how the game might offer a self-critique of its own exploitative premise by juxtaposing commodification with companionship.

Making Live: Finding Affection in Breeding, Training, and Genetics. It is helpful to place the relationships between the player and her digital animal populations alongside embodied human-animal relationships because these two games prominently feature biopolitical apparatuses that explicitly compare the immaterial “bodies” of the *Pikmin* and *Pokémon* to the management of biological bodies under biopower. Both the *Pikmin* and the *Pokémon* are used as a biological labor force, comparable to Michel Foucault’s model of political and economic biopower. Biopolitics, for Foucault, represents a transition in the formation of sovereignty where political and scientific structures begin to regulate human bodies at the level of the population. Foucault describes the sovereign’s involvement in managing populations as economic-political resources as “the power to ‘make’ live and ‘let’ die” (Foucault, *Society* 241). The sovereign “makes” members of the population live and “lets” others die by exercising “the disciplinary technology of labor” through “techniques of power ... centered on the body” (242),

specifically technologies relating to birthrates, public hygiene and nutrition, and disciplinary structures that subdivide humanity as a species. Through these techniques, individuals within this population are made to live in order to be more economically productive sources of labor and let die as part of this same political-economic system.

Foucault is primarily concerned with the forms of biopolitical power that exist at the level of the nation state and he only ever addresses the ways these political apparatuses affect humans, but his understanding of how labor sources are structured around the concept of population can easily be applied to the uses of both human and animal forms of biopower under capitalism. By using Foucault's idea of biopolitics to discuss the role animal labor plays in the systems of animal capital underlying the *Pikmin* and *Pokémon* series, I am following the model of biopolitical theorists such as Nicole Shukin, Melinda Cooper, and Cary Wolfe, who are interested in expanding Foucault's theories to address how more contemporary corporate forms of biopower seek to control animal as well as human life.

Shukin picks up on the animal-studies implications of Foucauldian biopower in her book *Animal Capital* (2009), criticizing Foucault for separating the emergence of humans as a species from the experiences of animal species and criticizing later theorists working with issues of biopower, who use animals "predominantly as a metaphor for that corporeal part of 'man' that becomes subject to biopolitical calculation" and not as objects of the same biopolitical process that transforms humans into productive populations (Shukin 10). Cary Wolfe is similarly critical of biopolitical scholarship that uses "animalization" as a discourse for approaching other biopolitical issues — slavery, imperialism, etc. — without also addressing the variety of ways that animal species are similarly subjected to biopolitical control (10). I find Shukin's and Wolfe's focus on animal populations to be particularly useful for my discussion of the *Pokémon* and *Pikmin* series, since unlike many video games that allow the player to control abstract representations of populations, the populations of *Pikmin* and *Pokémon* that the player interacts with are explicitly animal-like in their design.⁹

When the Foucauldian biopolitical concepts of "making live" and "letting die" come into play in the *Pikmin* series, they are structured around apparatuses of biopower that connect these "disciplinary technologies of labor" to the real world regulation of animals at the level of the population, as labor and livestock, while *Pokémon* is more

Stina Attebery – "Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games Pikmin and Pokémon"

clearly extrapolating from pet relationships, animal training, and animal fighting, which are forms of biopower more intimately related to human/animal companionship and coshaping. For Foucault, the technologies in biopower that “make” populations live begin with the regulation of a population’s birthrate and the “training” of young children into the “kinds of abilities-machines which will produce income” (Foucault, *The Birth of Biopolitics* 227). This training primarily takes the form of educating young people to be more viable as future “economic investments” (227). However, Melinda Cooper, in her book *Life as Surplus* (2008), points out that the types of income-producing “abilities-machines” that Foucault associates with education and human reproduction have always been a crucial feature of animal breeding, arguing that “the most disquieting effects of the new reproductive sciences — in particular, the suppression, confusion, or reversal of generational time — were evident in the field of animal biology long before their human applications brought them to the attention of bioethicists” (Cooper 133). These forms of animal biopower are featured in both the regulation of animal populations and in individual animal training and breeding relationships.

The practices involved in animal breeding and husbandry initially seem more impersonal than the close contact between human trainers and animal subjects, but these practices can also develop complicated interspecies relationships based in care and affection as well as economic profit. As Cary Wolfe points out, while these practices of “changing and ‘maximizing’” animal bodies through technologies of genetics and selective breeding, artificial insemination, inoculation, etc., are complicit in manipulating animal bodies to fit “the particular ends of capitalist enterprise” (35-6), these techniques for making live also invite breeders and farmers to become coshaped by the animals they are manipulating. Instead of just enforcing the management of animal populations as commodities, “these new biosocial collectivities assert the importance of care, an intimate understanding of the animal ... and practices of husbandry that do not bear a direct linear relationship to efficiency and profit” such that “those factors constitute a *complex* of human, animal, and inorganic relations that cannot be wholly anticipated, much less quantified” (Wolfe 36; emphasis in original). The relationships between breeders and animal populations, even at their most exploitative, can still become enmeshed in these biosocial collectivities that allow for the development of companionship between species.

Both *Pikmin* and *Pokémon* complicate Foucauldian biopolitical sovereignty by depicting the economic power relationships between animal populations and human masters or trainers as companionable as well as exploitative, although the *Pikmin* games have a

more nuanced approach to this companionate biopolitical coshaping of the human player. One of the primary ways that players make animal populations into productive economic workforces is through managing Pikmin and Pokémon health and birthrate, a form of biopower that more directly references animal breeding and genetic modification than Foucault's education model. In order to recover all of the ship parts within the time limit set by the first *Pikmin* game, the player must have a large and healthy Pikmin population at her disposal, a requirement that encourages the player to set aside time each day from scavenging to "sprout" new Pikmin. Pikmin start out as seeds dispersed from large flying incubators which Olimar calls "onions," and these seeds grow underground until they are picked by Olimar. If Olimar leaves the Pikmin in the ground for a couple of days they will mature into their adult form, where the leaf at the top of the Pikmin head-stalk grows into a bud and then a white or pink flower. This process is time consuming, but adult Pikmin prove to be valuable investments as they have increased strength and speed. However, the player can also directly manipulate the Pikmin lifecycle to produce adult Pikmin more quickly by guiding selected Pikmin to specific nectar-producing types of grass that circumvent the generational time that Pikmin would normally take to mature by immediately morphing them into their adult form. In this way, the game provides options for the player to manipulate the Pikmin lifecycle to better accomplish the goals that she sets for herself within the game through a set of techniques similar to animal reproductive science and breeding.

Olimar can also breed Pikmin of different colors with different skill sets, maximizing the efficiency of the population by subdividing Pikmin labor to fit his particular economic goals. These differently skilled Pikmin are helpfully color coded, so that blue Pikmin are capable of living and performing tasks in water environments, yellow Pikmin conduct electricity without suffering damage to their health, purple Pikmin are stronger and heavier, etc. The variously colored Pikmin populations, like the increasingly numerous varieties of Pokémon, serve partly as a merchandising feature of the game, but these specialized populations are still an important part of the gameplay. The player must select how many of each type of Pikmin she is working with on a given day within the game, and needs to be conversant in the particular skills of her Pikmin to use their labor effectively. In addition to managing Pikmin rates of maturation and nutrition, the player is also able to directly genetically manipulate her Pikmin to transform one color of Pikmin into another through the use of large "candypop buds"

that she finds on the planet surface. When Pikmin are thrown into these plants, they are transformed into a different species of Pikmin, and some of the Pikmin varieties are only available to the player through this genetic engineering process. These games therefore both require the player to familiarize herself with the particular Pikmin skill sets and to practice a form of husbandry that lets her directly interact with and transform individual Pikmin. The close observation of individual Pikmin that is enforced by this requirement allows the player to be coshaped by the creatures she breeds and engineers since the abstraction of the Pikmin into population statistics is countered by care built up by regularly handling individual members of this population.

Pokémon focuses a little on the generational time of animal breeding, as the player can, in the later games, leave compatible Pokémon in a Daycare Center and return later to collect their new Pokémon egg, but the player is not as directly involved in the Pokémon lifecycle as she is in *Pikmin* reproduction and birth and breeding and genetic engineering are a less crucial part of *Pokémon's* gameplay. However, *Pokémon* is explicitly interested in depicting the types of biopolitical management found in animal training, a form of companionate biopower that *Pikmin* does not address. As the controversy surrounding recent *Pokémon* games and PETA parodies shows, it is questionable whether the human-animal relationship in *Pokémon* is the type of animal training that coshapes the player and her digital animals through mutual respect and communication or whether it is merely an abusive exercise of power over an animal for human economic gain. The narrative and dialogue of *Pokémon Black and White* argue that the Pokémon and their trainers share a close bond of mutual respect and responsibility, as characters will exclaim, "We humans live happily with Pokémon! Living and working together, we complement each other." Even the Pokémon battles are described as a way to "[deepen] the bonds between people and Pokémon," although it is unexplained how this might be the case.¹⁰ If these claims matched the gameplay in *Pokémon*, this would afford *Pokémon* some of the agency and responsibility necessary for maintaining a mutually beneficial training relationship.

Vicki Hearne's *Adam's Task: Calling Animals by Name* (2007) considers the complexities of training and pet-keeping companion species relationships that depend on the exertion of power over an animal subject. As Hearne points out, animal trainers exert power over the animals that they work with, and this power relationship often involves "corrections" that can include sharp tugs on leashes or other forms of physical punishment. Even though these corrections can appear, to an observer, to be a pointless and cruel exercise of power over an animal, Hearne asserts that the relationships

formed between a trainer and her animal are positive and mutually beneficial. Instead of merely serving as a way to bring animals under human control, the “enforced obedience” of training facilitates increased communication and understanding between species (56). After all, “training methods, like any teaching method, depend on [the animal’s] willingness to cooperate” (56). This biopolitical control facilitates communication across species lines by providing a shared vocabulary of commands and responses that serves to coshape human trainers with their animals by requiring the trainer to respect and respond to the animal she works with.

Paul Patton expands on Hearne’s optimistic reading of the “shared commitments and collaboration” and “mutual autonomy” (53) in companionate animal training relationships by connecting this relationship to the power relationships inherent to Foucauldian governmentality, although he doesn’t address Foucault’s work with biopolitics specifically. As he points out in his essay “Language, Power, and the Training of Horses, animal training demonstrates the idea that “relations of communication are not external but immanent to relations of power” (91). However, he does feel, as does Hearne, that it is important to differentiate between training as “an exercise of power that blindly seeks to capture some of the powers of the animal for human purposes, and an exercise of power that seeks to capture the powers of the animal in ways that enhance both those powers and the animal’s enjoyment of them” (93). If animal training is a fundamental form of making live under a biopolitical system, then it is one that ideally extends some agency and responsibility to the trained animal as well as to the animal trainer and in doing so undercuts the idea that “moral equality” between subjects is necessary before we can live ethically with one another (95).

What is lacking in both Patton and Hearne’s discussion of animal training as an example of companionate biopower, although present in Haraway’s writing, is the importance of economics for any discussion of Foucauldian biopolitics. Animal training is part of a larger economy of pet keeping that includes pet insurance, health care, pharmacology, and other forms of “making live” that complicate the thanatopolitical slant of biopolitics in other human-animal relationships such as factory farms (Wolfe 53). Animal trainers are paid for their work and the animals they train take on a new economic value that reflects their ability to function within the human economy as “abilities machines” with the skill sets to work as guide animals, show animals, therapy

animals, or rescue animals. These close relationships between animal training and economic gain have the potential to undercut the companionate co-shaping that Hearne and Patton identify, since a trained animal who is enmeshed in an unquestioned exploitative capitalist system cannot have the kind of ethical “hierarchical forms of society between unequals” (Patton 95) that animal studies scholars have attributed to the companion species relationships found in animal training.

Even though she doesn’t consider the fact that animal training is inextricably bound up in issues of economic exploitation, Hearne does emphasize that human trainers must take on a significant amount of responsibility toward their animal companions, and this surplus of responsibility can help to complicate the more problematic, exploitative aspects of this relationship. Training relationships extend a great deal of responsibility to the animal, viewing the trained animal as responsible and aware of its actions. In exerting power over this animal subject the trainer is also taking on an enormous amount of responsibility for the animal’s happiness and well-being. As Hearne argues, this “awareness of the immense imaginative burden of authority” should be discomfiting, as it is always important to “[realize] that the ability to exact obedience doesn’t give you the right to do so” (66). As Hearne and Patton’s exploration of the trainer/animal relationship shows, if the Pokémon are invested in their own training, then the battles they are subjected to are less obviously abusive even though they may at times cause the Pokémon distress or harm.

Although the game’s protagonists may claim that “fighting is done for Pokémon and trainers to better understand each other,” this close training relationship does not match the actual gameplay. Pokémon trainers simply do not spend the amount of time working with their Pokémon companions that would be required to train an animal. Between battles, the Pokémon are confined in “Pokéballs,” making it difficult to interact with them to the extent needed to establish a training relationship. Animal trainers have a lot of direct physical contact with their animals, and need to build up a series of commands and responses through repetition. This tends to involve a lot of false starts, as the animal gets used to new commands, and trainers must improvise a wide variety of situations in which to practice a command to firmly establish the animal’s understanding and responsiveness (Hearne 58-9). This is simply not possible if the animal spends a majority of its time separated from the trainer in a small enclosed Pokéball.

The use of Pokéballs as animal storage devices in the *Pokémon* universe is one of the features of the game that PETA found reprehensible, although not exactly for the reasons I've outlined. The website for the PETA game proclaims,

The amount of time that Pokémon spend stuffed in Pokéballs is akin to how elephants are chained up in train carts, waiting to be let out to 'perform' in circuses. But the difference between real life and this fictional world full of organized animal fighting is that *Pokémon* games paint rosy pictures of things that are actually horrible.

This comparison is surprisingly apt — there is nothing in the early *Pokémon* games to suggest that the Pokéballs are anything but a storage device to keep the animals contained and out of the way between battles. What is interesting about this critique is the way that *Pokémon* games released after this parody have taken up the challenge of responding to this criticism of the Pokéball system. While the later games do not do away with Pokéballs altogether, which would require the player to travel everywhere with a herd of partially trained unruly Pokémon companions, *Pokémon X* and *Y* introduces wording that claims that the Pokéball “comfortably [encapsulates] its target” — a disclaimer that they had not felt the need to include before PETA's criticism. These paired games also introduced a new game mechanic which allows the player to pet, feed, and play with the Pokémon between battles. This new feature increases the Pokémon's effectiveness in battles and also adds a new animation to the battle sequences where the Pokémon turns to the player and physically emotes while waiting for commands. This isn't a perfect simulation of an actual animal training relationship, but it would represent a step forward in Nintendo's attempts to reframe the trainer's responsibilities in the light of this criticism if these changes didn't still actively avoid challenging the player to rethink her training relationship and if Nintendo had considered how the economic implications of Pokémon training connect the Pokémon/trainer relationship to the forms of lively capital that Haraway outlines. This economic value of animal labor is a crucial part of Pokémon's gameplay. Whenever a player wins a Pokémon battle she earns money which she can then put back into circulation in the Pokémon economy by buying animal consumer items like Pokéballs or health care technologies. The entire world of *Pokémon* seems to run economically on the presence of Pokémon as both consumers and consumable resources. Although training can facilitate human/animal coshaping, these relationships between Pokémon

trainers and Pokémon are problematically enmeshed in an unexamined system of capitalist exploitation that limits their ability to function as companion species relationships by avoiding the messy and discomfoting aspects of animal training that could have been incorporated into the game mechanics.

The animals in *Pikmin* are, like the Pokémon, clearly valued for their economic potential, as they work to carry heavy spaceship components and pieces of salvage across to the planet so that Olimar can capitalize on these resources. Unlike *Pokémon*, however, this game constantly invites the player to rethink the power dynamic of these relationships by emphasizing the way Olimar is coshaped by this encounter with the alien Pikmin. Olimar's commentary on the items that the Pikmin are recovering for him frequently subverts the game's requirement for the player to act as a capitalist entrepreneur. Although a few ship parts that Olimar recovers in the first game are crucial for his spaceship to function, after a certain point the ship parts that Olimar finds are more frivolous. At one point Olimar and the Pikmin discover an "extraordinary bolt" which he initially purchased "because the salesman told [him] it is of extraordinary quality that is indiscernible to the average person." Another item, the "Nova Blaster," he knows about only from "the promotional brochure," which reports that this blaster can "travel in the currents of space-time, smashing through stars and into the rifts of space," but Olimar muses that he is unsure if this is actually the case. A third spaceship component seems to be the Hocotate version of a microwave, and Olimar excitedly looks forward to being able to heat up his instant noodles again. These silly descriptions emphasize the connections between Olimar's consumption of Hocotate products and Pikmin labor instead of obscuring the economics of the game.

After finding a number of these unnecessary ship components, Olimar begins to wonder aloud whether his efforts to recover parts that he seems to have been duped into buying are a waste of time. He states, "Perhaps the Pikmin have opened my heart to the beauty of this world. I even started thinking there were some parts I do not need. A daydream...." The player can choose how many parts she recovers in the first game, and these junk parts do not affect the functionality of the spaceship at the end. Given this option in the gameplay, Olimar's commentary complicates his use of the Pikmin as a disposable resource for salvaging other commodities, inviting the player to invest herself in exploring the planet with her animal companions instead of spending all of her time exploiting the Pikmin to acquire consumer goods. This subversion of the game's own capitalist premise is often reflected in children's experience of playing the game, as players "often ignore the game objective of gathering parts for the spaceship; rather, they explore the planet, hanging out and fooling around" (Weber and Dixon 30).

Olimar's remarks about how the Pikmin are giving him a new appreciation for the planet and allowing him to rethink his dependence on consumerism suggest that he is being coshaped by these populations of Pikmin in a way that the Pokémon trainer is not.

Letting Die: Kinship and Crisis. Olimar's coshaping with the Pikmin is especially apparent in the way the game treats Pikmin deaths. When Foucault elaborates on the "let die" side of his biopolitical equation, he is again addressing the economic power of a sovereign over members of a population who are let die when they no longer function as financial assets. Letting part of the population die, under a biopolitical framework, primarily involves policies that normalize death and illness as statistics: the idea of "acceptable losses." This idea that death is an inherent part of a capitalist biopolitical system is something that theorist Eric Cazdyn develops in his analysis of "crisis" in political and medical discourse. In his book *The Already Dead* (2012) Cazdyn writes that "the contingency of disaster is what sets it apart from crisis. Unlike a disaster, there is something necessary about a crisis, something true to the larger systemic form. In other words, systems are structured so that crises will occur that strengthen and reproduce the systems themselves" (Cazdyn 54). The "boom-bust cycle of capitalism" is, for Cazdyn, "one of the more obvious examples of this logical necessity" (54). This distinction between crisis and disaster is borne out in the animal deaths that are part of a biopolitical system, but as Sarah Franklin rightly points out in her book *Dolly Mixtures* (2007), events like the animal genocides associated with health scares like Foot in Mouth disease show how easily the managed crises of animal deaths can tip over into disaster. Franklin suggests that the unprecedented level of biopolitical control over animal genetics, living conditions, and deaths that humans now have may in fact contribute to pushing animal deaths from crisis into a disaster scenario (190).

Franklin also points out that these animal deaths, even when they do not occur in large-scale disaster situations, are often complicated by the fact that these deaths paradoxically combine the proximity and companionship of animal husbandry with the need to "[manage the] transformation into useful products to be sold at a profit, something that by definition means ending animal lives prematurely" (173). This complicated relationship between companion species relationships and the transformation of living animals into dead animal capital results in a system in which "because animal lives are valued ... their deaths must be properly managed" (173). The

ease with which these managed crises of animal deaths can become disastrous mass extinctions complicates the affective bonds that are formed between the trainers and breeders who manage animal deaths — in Franklin’s example, rural sheep farmers — since the conditions under which this affective human/animal coshaping arises are always on the brink of the kind of large scale catastrophe of animal disease and death that are inherent to biopolitical disaster. But, as Cazdyn points out, disaster can be transformative, since the scale of a biopolitical disaster can cause us to rethink a system of managed crisis that has become normalized and internalized in biopolitical subjects. Disaster can be a grim form of companion species coshaping. This elision of crisis and disaster in animal capital is highlighted in the gameplay of *Pikmin* where the distinction between an “acceptable” number of losses and a population disaster are constantly renegotiated as the player observes and reacts to Pikmin deaths. Letting die as well as making live becomes a way of emphasizing the responsibility of a trainer/sovereign.

Despite being a game focused on depicting battles between animals, *Pokémon* completely avoids addressing the possibility of animal death. Pokémon never die. They “faint” when they have been badly hurt and must be revived in a clinic (another example of the “make live” aspect of biopolitics), but there are never any disastrous consequences for Pokémon battles. However, the *Pikmin* games do an excellent job of presenting this biopolitical distinction between disasters and crises through Pikmin deaths. Although there are rewards for letting as few Pikmin die as possible, deaths are difficult to avoid, and any Pikmin “losses” are presented as one of a number of interconnected statistics representing the changing population number. At the end of each day spent within the game, the player is presented with a line graph representing the changes in Pikmin population numbers, along with three sets of population statistics: the number of Pikmin “sprouted,” Pikmin “lost in battle,” and Pikmin “left behind” at the end of the day. This abstract graphical representation of the Pikmin population and the economic language of “loss” establishes Pikmin deaths as part of the same biopolitical system that controls their birthrate and genetic structure, but the game doesn’t overlook the idea that these Pikmin deaths can be individual tragic events.

When Pikmin die because they are “left behind” at the end of the day, a brief cutscene shows them being pursued and eaten by predators. This cutscene can be skipped, but the fact that the game makes the player watch her Pikmin die in a situation where she doesn’t have any way of controlling the outcome challenges the more impersonal statistical representation of their deaths in the chart, especially as these two images are immediately juxtaposed against each other. Each time a Pikmin dies during the day, it also makes a sad or frightened noise and a small ghost version of the Pikmin rises up

from where its body was. In a game that involves flinging Pikmin at obstacles and predator species to discover new areas to explore, this constant reminder of the fact that these fighting units are living creatures with subjectivity serves as a disquieting counterpoint to the player's instrumentalization of the Pikmin population.

This resistance to the instrumentalization of Pikmin populations is also reflected in the avatar character's dialogue and nightly Journal entries. If the player accidentally blows up part of her Pikmin population, Olimar writes regretfully that he "must review [his] procedures for handling Pikmin with bomb rocks so that [he does] not repeat this mistake," making a manageable number of Pikmin deaths an unfortunate but inevitable part of the system that uses the Pikmin as animal labor: Pikmin deaths in the mode of crisis. However, Pikmin deaths can quickly escalate. Olimar's Journals reflect this shift from crisis into disaster. Olimar will grieve if all of his Pikmin are killed, writing in the circumstance of a Pikmin extinction event that they "have all perished because of my own carelessness" and failure "as a leader," and claiming that he "shan't sleep tonight" after the event. Unlike earlier examples of Pikmin deaths, which act as small moments of crisis but don't greatly affect the game's outcome, an extinction event is also an immediate game over. Olimar's grief and insistence on his own failures as an authority figure and caretaker show the extent to which he has been coshaped with the Pikmin. While there are practical reasons for the game to end after an extinction event, since the player depends on the Pikmin to unlock new areas of the game and complete tasks, Olimar emphasizes his emotional distress instead of discussing the logistical consequences of this disaster.

These dialogue options reflect my own experience playing the game: Since I found the game interface for *Pikmin* difficult to adjust to when I was first playing the game I tended to let many of my Pikmin die as I fumbled to try to retrieve them from unexpectedly hazardous situations. These Journal entries from Olimar, then, may never occur for a more experienced player of this game and were not a part of my later playthroughs. However, even a more seasoned player of this type of game would encounter messages from Olimar questioning his relationship to the Pikmin ("I thought I shared a strong bond with them, but maybe that was just my wishful thinking" or "I often grow uneasy wondering why they never attack me ... Could it be that they actually view me as a parental figure? A strange, disturbing thought"). Olimar's inability to define exactly what his relationship to the Pikmin is and his expressed

desire for their companionship as he explores the beauty of Planet PNF-404 similarly serves as a cue that the constant presence of Pikmin deaths in the game is more subversive than the presentation, or lack thereof, of animal suffering in *Pokémon*. Olimar is constantly reminded of his own surplus of responsibility toward the Pikmin, and this coshaping through a surplus of responsibility over animal subjects is extended to the player.

Conclusion: Rethinking Extinction and Electronics. This emphasis on the precariousness of biopolitical animal life within systems of capital and the surplus of responsibility that *Pikmin*, and to a lesser extent *Pokémon*, invite the player to adopt suggests strategies for connecting digital media to animal welfare that go beyond the example of these particular games. While I have traced out some of the gameplay mechanics and narrative choices that prevent *Pokémon* from engaging ethically with animal suffering while allowing *Pikmin* to trouble these relationships, one of the key differences between these two similar game worlds involves the positioning of their settings against our contemporary neoliberal industrialized global society. As I have indicated, these two games, despite their visual and thematic similarities, are set at very different implied points in human history. *Pokémon* is invested in an intense nostalgia for a pre-industrial Japan, where you could know the names of everyone living in a small village and where children can explore natural spaces like forests and rivers. *Pikmin* is set in a similarly visually beautiful world but the planet that Olimar is exploring is a future Earth where humans have somehow wiped themselves out, causing enough nuclear fallout to mutate the animal and plant species of Earth into new unrecognizable forms. These different backdrops reflect the differences between these two game franchises in their ability to create a human relationship with a digital animal that still evokes the kind of coshapings and responsibilities that can be present in companionate human-animal relationships in the biological world. *Pokémon* replicates a world structured around biocapital that its setting and narrative wish to predate, and this tension between its preindustrial setting and biopolitical economic system is never fully resolved, but *Pikmin* constantly reminds the player of the environmental consequences of indiscriminately exploiting biopower by placing the player in a post-apocalyptic world recovering from a series of species extinction events that finally included human populations.

This post-apocalyptic setting, and the attention it draws to global environmental disasters, is an important way that this game challenges and refigures the biopolitical structures of making live and letting die. Games such as *Pikmin* can do an excellent job of drawing our attention to biopolitical issues of animal exploitation and environmental

change, suggesting that we can become coshaped by our animal companions even in late capitalist biopolitical systems that see animals as resources instead of subjects. The forms of messy cohabitation that these games imagine challenge the conventional understanding of digital game spaces as forms of escapism and the view that artificial animals only function as replacements for biological animal species.

Notes

1. See Helmreich, *Silicon Second Nature* (1998) and Hayles, *How We Became Posthuman* (1999) and “Simulated Nature and Natural Simulations: Rethinking the Relation between the Beholder and the World” (1995) for examples of these arguments.

2. Tom Tyler makes a similar argument in his essay “New Tricks” (2013), arguing that games can communicate the alterity of animal perceptions, focusing on the visuals and “smellovision” featured in the game *Dog’s Life*.

3. While I find Parikka’s archaeology of insect media very useful for thinking through some of these relationships between digital and biological life, it is important to bear in mind the diversity of game platforms and mechanics, since many games do invite the kind of becoming-animal that Parikka describes but not all games operate in this register.

4. Each new game in the franchise is typically released as a two-game pairing — for example, *Pokémon X* and *Pokémon Y* (2013), or *Pokémon Ruby* and *Pokémon Sapphire* (2002). These paired games typically have the same storyline and game mechanics, so when I am discussing a set of paired games like *Pokémon Black* (2011) and *Pokémon White* (2012), I can address these two games simultaneously as there are not significant differences between the two in terms of gameplay or storyline but only in the presence of game-specific locations and in what types of Pokémon are present in each game world and how often they are programmed to appear.

5. Animal cataloguing is treated very differently in *Pokémon* and *Pikmin*. The “Pokedex” is a straightforward index that promises to describe comprehensively every Pokémon species, serving as another way of “capturing” Pokémon. In *Pikmin*, however, the player is presented with multiple conflicting species indexes. Captain Olimar makes detailed

naturalist notes for each species he encounters, often taking on the role of a scientific observer, while his shipmate in the second and third game, Louie, begins to write a cookbook of recipe recommendations for each of these species. These dueling indexes of animals as a scientific phenomenon and animals as food undercut each other by emphasizing how individual perspective can change the way these animals are observed.

6. Two of the more misguided parodies are *Super Tofu Boy*, a response to the popular flash game *Super Meat Boy* which features a protagonist who has been turned inside out (PETA incorrectly reads this premise as a pro-meat message), and *Mario Kills Tanooki*, a parody which mistakenly assumes that a recent *Super Mario Bros.* game which depicts the character transforming into a raccoon or squirrel-like animal is pro-fur

7. The intense pre-industrial nostalgia of the *Pokémon* games is contrasted in the *Pikmin* series by this post-apocalyptic setting. The post-apocalyptic setting of *Pikmin* allows this game to both defamiliarize everyday objects like pennies or batteries, for which Olimar makes up names and uses in the absence of any other information, while emphasizing the impermanence of the value these human commodities.

8. Unlike *Pokémon*, which has only one “win state,” the *Pikmin* games have multiple canonical options for the end of the game, defined around the player’s success in attempting to escape the planet and collect resources. The “good” endings show the player’s avatar escaping the planet, while the “bad” ending of the first game shows Captain Olimar’s still damaged spaceship breaking up in the planet’s atmosphere and Olimar waking up to find himself buried up to his neck in the ground with one of the Pikmin’s head stalks grafted to his head. While these alternate endings are labeled “good” and “bad,” the transformation of Olimar into a hybridized Pikmin creature in the “bad” ending offers a darkly whimsical reversal of the biopolitical control that he exerts over the Pikmin population throughout the rest of the game, as the Pikmin have taken it upon themselves to use a form of biotechnology to make Olimar live.

9. *Pokémon* typically have a clear animal referent in their design, so that a “Psyduck” will closely resemble a duck, a “Bulbasaur” looks like a dinosaur, and so on, while the creatures on the *Pikmin* planet appear to be mutated combinations of plant and insect species, suggesting that the strange creatures in the post-apocalyptic world may be the result of nuclear fallout.

10. Much of the *Pokémon* media outside the video game franchise, particularly the anime, explore the emotional relationship between Pokémon and their trainers in depth. However, while these depictions of a trainer/animal relationship are closer to the type of messy coshapings formed through training in the material world, there is no real exploration in the tv series or movies of the larger systemic biopolitical apparatus built into the games.

Works Cited

Allison, Anne. "Portable Monsters and Commodity Cuteness: Pokémon as Japan's New Global Power." *Postcolonial Studies* 6.3 (2003): 381-395.

Cazdyn, Eric. *The Already Dead: The New Time of Politics, Culture, and Illness*. Durham, NC: Duke UP, 2012.

Cooper, Melinda. *Life as Surplus: Biotechnology & Capitalism in the Neoliberal Era*. Seattle: U Washington P, 2008.

Dyer-Witherford, Nick, and Greig de Peuter. *Games of Empire: Global Capitalism and Video Games*. Minneapolis: U of Minnesota P, 2009.

Foucault, Michel. *The Birth of Biopolitics: Lectures at the Collège de France, 1978-79*. Trans. Graham Burchell. New York: Palgrave Macmillan, 2008. .

_____. "Society Must Be Defended": *Lectures at the Collège de France, 1975-76*. Trans. David Macey. New York: Picador, 2003.

Franklin, Sarah. *Dolly Mixtures: The Remaking of Genealogy*. Durham, NC: Duke UP, 2007.

Gee, James Paul. *Good Video Games + Good Learning: Collected Essays on Video Games, Learning and Literacy*. New York: Peter Lang, 2007.

_____. *What Video Games Have to Teach Us About Learning and Literacy*. New York: Palgrave Macmillan, 2003.

Stina Attebery – "Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games Pikmin and Pokémon"

Haiven, Max. "Can Pikachu Save Fannie Mae?: Value, Finance and Imagination in the New Pokéconomy." *Cultural Studies* 26.4 (2012): 516-41.

Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1991. 149-81.

_____. *When Species Meet*. Minneapolis: U Minnesota Press, 2008.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 1999.

_____. "Simulated Nature and Natural Simulations: Rethinking the Relation between the Beholder and the World." *Uncommon Ground: Toward Reinventing Nature*. Ed. William Cronon. New York: Norton, 1995. 409-425.

Hearne, Vicki. *Adam's Task: Calling Animals by Name*. New York: Skyhorse Publishing, 2007.

Heise, Ursula K. "From Extinction to Electronics: Dead Frogs, Live Dinosaurs, and Electric Sheep." *Zoontologies: The Question of the Animal*. Ed. Cary Wolfe. Minneapolis: U Minnesota P, 2003. 59-81.

Helmreich, Stefan. *Silicon Second Nature: Culturing Artificial Life in a Digital World*. Berkeley: U California P, 1998.

Jordan, Tim. "The Pleasures and Pains of Pikachu." *European Journal of Cultural Studies* 7.4 (2004): 461-80.

Lippit, Akira Mizuta. *Electric Animal: Toward a Rhetoric of Wildlife*. Minneapolis: U Minnesota P, 2000.

Parikka, Jussi. *Insect Media: An Archaeology of Animals and Technology*. Minneapolis: U Minnesota P, 2010.

Patton, Paul. "Language, Power, and the Training of Horses." *Zoontologies: The Question of the Animal*. Ed. Cary Wolfe. Minneapolis: U Minnesota P, 2003. 83-100.

Paumgarten, Nick. "Master of Play: The Many Worlds of a Video-Game Artist." *The New Yorker* 2 Dec 2010. Web. 25 Apr 2014.

Pikmin. Nintendo Gamecube. Nintendo. 2001. Video Game.

Pikmin 2. Nintendo Gamecube. Nintendo. 2004. Video Game.

Pikmin 3. Wii U. Nintendo. 2013. Video Game.

Pokémon Black. Nintendo DS. 2011. Video Game.

Pokémon Black Version 2. Nintendo DS. Video Game.

"Pokémon Black and Blue." *People for the Ethical Treatment of Animals*, 2012. Web. 2 Apr 2014.

"Pokémon Red, White, and Blue." *People for the Ethical Treatment of Animals*, 2013. Web. 2 Apr 2014.

Pokémon White. Nintendo DS. 2011. Video Game.

Pokémon White Version 2. Nintendo DS. 2012. Video Game.

Pokémon X. Nintendo DS. 2013. Video Game.

Pokémon Y. Nintendo DS. 2013. Video Game.

Shukin, Nicole. *Animal Capital: Rendering Life in Biopolitical Times*. Minneapolis: U Minnesota P, 2009.

Thacker, Eugene. *The Global Genome: Biotechnology, Politics, and Culture*. Cambridge, MA: MIT Press, 2005.

Tobin, Joseph, ed. *Pikachu's Global Adventure: The Rise and Fall of Pokémon*. Durham, NC: Duke UP, 2004.

Stina Attebery – "Coshaping Digital and Biological Animals: Companion Species Encounters and Biopower in the Video Games Pikmin and Pokémon"

Tuan, Yi-Fu. *Dominance & Affection: The Making of Pets*. New Haven: Yale UP, 1984.

Tyler, Tom. "New Tricks." *Angelaki* 18.1 (2013): 65-82.

Vasquez, Vivian. "What Pokémon Can Teach Us about Learning and Literacy." *Language Arts* 81.2 (2003): 118-125.

Wolfe, Cary. *Before the Law: Humans and Other Animals in a Biopolitical Frame*. Chicago: U Chicago P, 2013.

Weber, Sandra and Shanly Dixon. "Playspaces, Childhood, and Videogames." *Growing Up Online: Young People and Digital Technologies*. Ed. Sandra Weber and Shanly Dixon. New York: Palgrave Macmillan, 2007. 15-34.