

LITERARY LABORATORIES: A CAUTIOUS CELEBRATION OF THE CHILD-CYBORG
FROM ROMANTICISM TO MODERNISM

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ABSTRACT

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Constructions of children and constructions of cyborgs in literature and other textual representations are very similar; both identities are liminal since they exist outside the realm of adult human experience and both identities also serve as vehicles through which adults can experiment with their own conscious or unconscious fantasies or fears. Because of these similarities, the figure of the child and the figure of the cyborg frequently become linked in popular culture. Although the figure of the cyborg offers many liberating opportunities for alternative hybrid identity formations (as posthumanist Donna Haraway has pointed out), linking the figure of the child with regressive constructions of the cyborg can have many harmful consequences. Often, the figure of the cyborg becomes a site for the fears and phobias of adults afraid of the future. And since children are already sometimes marginalized in adult texts, or get used as adults experiment with their own anxieties about the present or the future, linking the figure of the child with the figure of the cyborg in some situations can theoretically create a doubly-differentiated “other.” Arguing that the merging of the figure of the cyborg and the figure of the child has become much more popular in recent decades, this project will attempt to analyze the evolution of the child-cyborg from Romanticism to Modernism by discussing representations of the “child-animal cyborg,” the “preternatural child-cyborg,” and the “mechanized (or robotic) child-cyborg.” It will then conclude by interrogating from a sociological perspective how regressive representations of child-cyborgs may affect real child bodies, positing that more progressive constructions of child-cyborgs are both possible and desirable.

In loving memory of Kenneth E. Lupold, Harold F. Williams,
and Eva M. Williams

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INTRODUCTION

It is quite possible to train the baby to be an efficient little machine, and the more nearly perfect we make the running of this machine, the more wonderful will be the results achieved and the less trouble it will be for the mother.

-- Myrtle Meyer Eldred and Helen Cowles Le Cron, *For the Young Mother*

Like many Dadaists of the Weimar Republic, Hannah Hoch regularly incorporated images of the grotesque into her work. Frequently featuring depictions of disassembled bodies in her photomontages, Hoch also often worked with images of cyborgs, women, and children as she assembled her collages. Because Hoch was part of a culture in which artists were increasingly consumed by themes of industrialization, alienation, and automation, it is not surprising that her assemblages often feature these themes in her work. Hoch's work is similar to the work of many other Dada artists in the sense that it reflects a growing concern for the techno-organic hybridized human body at the beginning of the twentieth century; but it is also of interest because it incorporates images of child bodies in conjunction with these themes.

For instance, in her photomontage "Bourgeois Wedding Couple – Quarrel" (1919), Hoch



places an image of a child's enlarged head upon the body of a female athlete (presumably a "bride"). Next to this image is an infantilized male athlete (the "groom"), who virtually disappears under a large feminine-looking hat. Both of these images are foregrounded against a backdrop of various housecleaning machines, which suggest that the

Figure 1: "Bourgeois Wedding Couple – Quarrel" (1919), published in Biro, Matthew. *The Dada Cyborg: Visions of the New Human in Weimar Berlin*. University of Minnesota Press: Minneapolis. 2009. Print.

young couple has become consumed not only by their own gender roles and the prospect of children, but also by the vast array of household appliances available to them. In this way, Hoch's collage is a commentary on the increasing mechanization of the family and the household in early twentieth century Germany. Likewise, one of Hoch's most famous works, entitled "Cut with the Kitchen Knife Dada Through the Last Weimar Beer Belly Cultural Epoch of Germany" (1919), also questions the mechanization of the family and of reproduction itself. This particular photomontage depicts a newborn baby being carried in the air upon a metal tray. The infant is superimposed over the face of Kaiser Wilhelm II of Prussia, and is carried through the air by an upside-down wrestler. The juxtaposition of the organic body of the baby against the cold metal surface of the tray, along with the way the infant itself appears alienated from any sort of caring maternal figure, suggests a mechanization of reproduction and an increasing sense of ambivalence towards the process of childbirth. This image is placed in close proximity to an image of Roal Hausmann, Hoch's collaborator and longtime lover. Hausmann's body is a mechanized cyborg body in the photomontage (a metallic screw emerges from the top of his head and the figure's disproportionate body is made out of a mechanical deep-sea diver's suit).

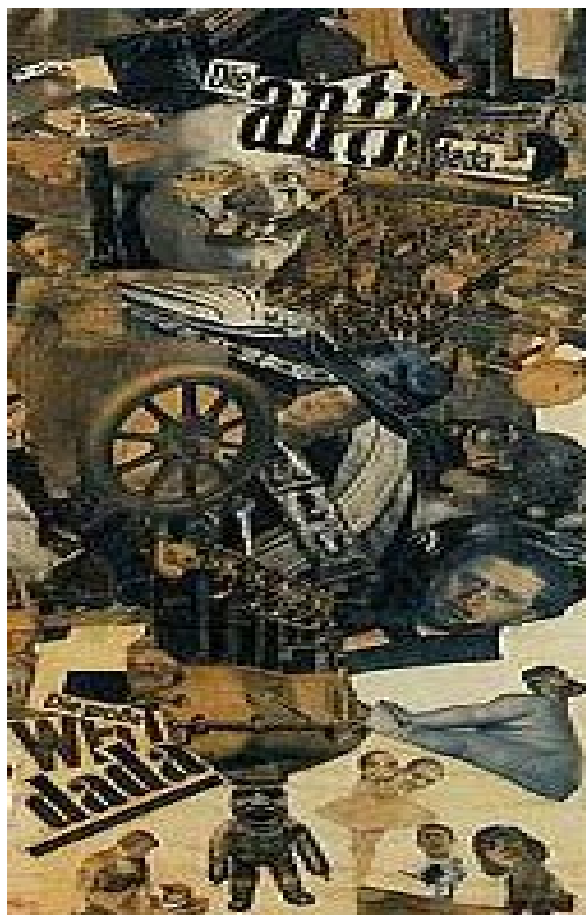


Figure 2: "Cut with the Kitchen Knife Dada through the Last Weimar Beer Belly Cultural Epoch of Germany" (1919), published in Biro, Matthew. *The Dada Cyborg: Visions of the New Human in Weimar Berlin*. University of Minnesota Press: Minneapolis. 2009. Print.

This is one of the first notable works of art to depict an image of a child alongside an image of a cyborg, and it is probably not coincidental that this representation of Hoch's lover appears next to an image exhibiting anxieties about reproduction and/or the mechanization of the family.

The implications of this are important to consider for many reasons. At the beginning of the twentieth century, as one world war came to a conclusion and a second world war loomed on the horizon, adults would begin to turn to images of both cyborgs and children to release their own anxieties and fears for the future, and to also find a form of comfort in these alternative identities. With the growth of an increasingly image-based society during the twentieth century, the figure of the child and the figure of the cyborg would begin to become linked in significant ways in art and film. New developments in the way images could be produced and dispersed on a large-scale in the first half of the century, meant that, for the first time in history, these sorts of hybrid images could become popularized and naturalized.

Increasing associations between children and cyborgs throughout the twentieth century were certainly not coincidental. The figure of the cyborg and the figure of the child have both traditionally been identities located outside of the margins of "human" experience. Childhood is usually described by scholars as a liminal zone existing outside of or prior to adult enculturation and experience, while cyborgs are portrayed as figures that blur the boundaries between humans, machines, and/or animals. Both, in many ways, have traditionally been misconstrued as being monstrous. The interesting questions to ask, then, become: is there something especially cyborgian about childhood, is there anything uniquely childlike about cyborgs, and, more importantly, does the hybridized figure of a "child-cyborg" become a doubly-marginalized target?

The fact that Donna Haraway's groundbreaking essay on cyborgs, entitled "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century"¹ contains no substantial discussion of childhood is oddly conspicuous since childhood is a topic that often gets linked to discussions of feminism, and since Haraway herself references a science fiction story with a cyborgian child heroine (Anne McCaffrey's *The Ship Who Sang*). Other scholars have been reluctant to discuss the similarities between constructions of cyborgs and constructions of children, with psychologist Erica Burman being the primary exception. In her essay entitled "The Child and the Cyborg," Burman investigates the similarities and differences between these two marginalized identity categories, but chooses to focus more on the potentially politically retroactive aspects of the cyborg than on the repercussions of linking children and cyborgs together as sites of abject fantasy in cultural mythos and/or popular culture. While Burman does an exceptional job of fleshing out the similarities and differences between the figure of the child and the figure of the cyborg, the end of her essay concentrates more on the differences between cyborgs and children than on the implications of the similarities between them. The author also fails to acknowledge the way these two entities are often linked in traditional cultural lore or in popular culture today.

Additionally, it is also interesting to consider Noga Applebaum's recent book, entitled *Representations of Technology in Science Fiction for Young People*, in relation to the figure of the child-cyborg, as well as in relation to arguments made by both Burman and Haraway. While Applebaum's text does a phenomenal job of highlighting the technophobia found in the genre of young-adult science fiction, and the anxieties adult authors have long had about the relationship between children and technology, the book does not provide a substantial analysis of adult

¹ Originally published as "A Manifesto for Cyborgs: Science, Technology, and Socialist-Feminism in the 1980s." *Socialist Review* 80 (1985): 65-108. Print.

constructions of child-cyborgs in traditional adult literature, or of the connections that can be made between adult anxieties about children's relationships to technology and historical representations of technology and childhood. Furthermore, although Applebaum's work occasionally discusses Haraway's liberating model of the figure of the cyborg, a sustained discussion of escalating representations of "children-as-cyborgs" in all forms of media does not appear in her text. Nor does Applebaum consider Burman's analysis of childhood and the effects it could potentially have on discourses related to children and technology.

In *Literary Laboratories: A Cautious Celebration of the Child-Cyborg from Romanticism to Modernism*, I analyze constructions of the child-cyborg in literature and other textual mediums by discussing representations of the "child-animal cyborg," the "preternatural child-cyborg," and the "mechanized (robotic) child-cyborg." Beginning with Romantic poet William Blake's *Songs of Innocence and Experience*, a review of textual representations of the child-animal cyborg highlights emerging representations of child-cyborgs in the late eighteenth century and briefly explores the evolution of the child-animal cyborg into the twentieth century. Moving into the late nineteenth and early twentieth centuries, a review of the preternatural child-cyborg in the context of Henry James' *Turn of the Screw*, and an analysis of the uncanny child as a laboring body in Carlo Collodi's *The Adventures of Pinocchio*, help highlight the way representations of the child-cyborg moved from the animal to the supernatural during the Victorian period. And finally, a review of textual representations of mechanized or robotic children in the twentieth century traces how the figure of the mechanized child-cyborg operates in novels such as Aldous Huxley's *Brave New World* and Orson Scott Card's *Ender's Game*. After working closely with literary and cultural texts to examine these hybrid forms of child-cyborgs, I take a sociological approach to analyze how these representations of child-cyborgs may impact real child bodies.

Following Donna Haraway's definitions of the figure of the cyborg, along with Erica Burman's arguments about the relationships between children and cyborgs, this project's introduction begins by clarifying what is meant by the figure of the child and the figure of the cyborg. It then proceeds to engage theories of the posthuman in order to argue that these two identity constructions are more similar than Burman's article indicates. Finally, it concludes by calling attention to the way such similarities have gone unanalyzed for too long by scholars.

Chapter One proceeds with a discussion of various historical and situational factors that led to alliances between children and cyborgs in textual representations and in popular medias. It analyzes the fluctuations in historical constructions of childhood, in historical constructions of the cyborg, and the continued blurring of boundaries between children and cyborgs from the Industrial Revolution to the twenty-first century. Finally, it argues that although the construction of the child-cyborg can have potentially positive benefits, adults often misappropriate the child-cyborg in harmful ways.

Chapter Two of this project posits that childhood as represented in Romantic literature is in many ways cyborgian. The chapter considers the Romanticist construction of childhood as a liminal state and analyzes the way children have traditionally been associated with animality in Romantic texts. It furthermore discusses the emergence of the child-animal cyborg in late eighteenth century textual representations, by completing an analysis of *Songs of Innocence and Experience*, and by interrogating the cyborgian elements of the laboring child body in the increasingly industrialized society of the late eighteenth century. The close of the chapter posits that representations of child-animal cyborgs have not entirely disappeared, but that they continue to appear even in twenty-first century texts.

Chapter Three continues to investigate the evolution of the child-cyborg through an analysis of the preternatural child-cyborg in Victorian literature. This section focuses on late nineteenth century texts such as *Turn of the Screw* and *The Adventures of Pinocchio* in order to examine the evolution of the child-cyborg from representations of animality into representations of ghostly or uncanny children. It, too, focuses not just on the marginalization of children via associations between children and nonhuman entities but also on the way that discourses of labor and representations of children were intertwined at the close of the nineteenth century. Finally, it argues that representations of the preternatural child-cyborg are still widely popular in cultural medias today.

Chapter Four analyzes the emergence of the mechanized child-cyborg in the twentieth century. Positing that there has been a recent escalation of depictions of mechanized children in popular literature and media, this section examines representations of mechanized children or robotic children in twentieth and twenty-first century texts. It considers texts such as *Brave New World* and *Ender's Game* in order to ask whether constructions of mechanized child-cyborgs might arise out of repressed anxieties adults may have about the relationship between children and technology in an increasingly globalized and industrialized society.

The final section of this project, Chapter Five, begins by speculating about the repercussions of associating children with cyborgian (animalistic, preternatural, or mechanized) figures. The chapter analyzes what consequences such associations might have for real child bodies, through a sociological analysis of child-related labor practices, sexual practices, and medical practices. Such an analysis showcases several dangerous new trends in society that have resulted from linking constructions of childhood to regressive constructions of cyborgs in

popular medias, but it also suggests that cautious constructions of child-cyborgs may have potentially liberating and beneficial effects when approached carefully.

However, any discussion of representations of child-cyborgs must first begin with a short clarification of what is meant by a “cyborg” or a “child” independently. Doing so is important in order that the emergence of the figure of the child-cyborg can be more methodically and systematically understood.

“The Cyborg”

For the purposes of this project, the definition of “the cyborg” relies less on early definitions established by scientific theorists in the 1960s (such as Manfred Clynes and Nathan S. Kline),² and instead takes inspiration from Donna Haraway’s conception of the feminist-inspired cyborg first established in 1985. However, there are other definitions of the cyborg that are available, ones which have been coined by scholars in the decades following Haraway’s publication.³ While competing definitions of the figure of the cyborg are endlessly infinite, interesting, and varied, recent essays focusing on definitions of the term frequently spend a good deal of time debating which “pieces” of the puzzle make up the cyborg, forgetting that what is important about Haraway’s conception of the cyborg is the fact that it is a puzzle “in pieces” in the first place. For the purposes of this analysis, the figure of the cyborg is culturally relevant because it is an entity that crosses boundaries, because it is an entity that rejects falsely perceived unity in favor of liminality, and because it is an entity which breaks down socially-constructed

² For further discussion of Clynes and Kline’s concept of the cyborg, see Clynes, Manfred and Nathan S. Kline “Cyborgs and Space.” *The Cyborg Handbook*. Ed. Chris Hables Gray. New York: Routledge, 1995. 29-34. Print.

³ Dan Heggs, for instance, re-appropriates Haraway’s term in his essay “Cyberpsychology and Cyborgs,” modifying it slightly to include the concept of “resistance.” Heggs argues that the cyborg always inevitably means “an armouring of the body against change” (Heggs 198) and ties the figure of the cyborg closely to the figure of the superhero. Unlike Heggs, however, Virginia Nightingale uses the term “cyborg” in her article “Are Media Cyborgs?” to refer to entities which do not necessarily have bodies. Nightingale claims that her definition of the cyborg is informed by her interest in “readership, audience, and fan cultures,” and she openly admits that she sees no “*a priori* requirement that a cyborg must possess physical form or bodily parts in the way that both humans and the anthropomorphized cyborg do” (Nightingale 228).

binaries, borders, and biases in favor of integration. While definitions of the cyborg established by scholars after Haraway are not necessarily irrelevant or unproductive, they are somewhat superfluous since Haraway has already comprehensively and accurately identified the liminal essence of the cyborg's role as an informational system that can be disassembled and reassembled at will. As Haraway herself states in "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," her essay is: "an argument for *pleasure* in the confusion of boundaries" (292). Therefore, the most important thing to remember about Haraway's cyborg is that it is a liminal figure. The cyborg is a figure that exists outside the borders of the human, but this does not mean that it is necessarily a machine. The cyborg does not have to be mechanical, but can be part-animal and part-human. The liminality of the cyborg is arguably its most significant attribute, since this quality allows it to function as a vehicle for political resistance against rigid normativities.

Often, the cyborg is confused with the android, the automaton, or the robot. But the cyborg is none of these things. Haraway writes, "A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" (291). However, even those who are able to remember that the cyborg is a symbiotic blend between the human and machine often forget that the human element of the cyborg does not simply "inhabit" the machine itself. All too frequently we think of the human as something that gets *trapped inside* the cyborg. But, as Haraway states, "The machine is not an *it* to be animated, worshipped and dominated. The machine is us, our processes, an aspect of our embodiment" (315). Therefore, the human does not *reside* in the machine, but rather *communicates with* the machine.

As Anne Balsamo claims in her essay "The Virtual Body in Cyberspace," the line between what constitutes the cyborg's so-called "virtual reality" and "reality" itself is becoming

increasingly blurred. Balsamo writes: “What is becoming increasingly clear in encounters with virtual reality applications is that visualization technologies no longer simply mimic or *represent* reality – they virtually recreate it” (494). This is also true in Haraway’s model. In “A Cyborg Manifesto,” Haraway proves that a new reality is being created in modern society, a reality in which “systems” are more important than “organisms.” For instance, Haraway writes: “It is not clear who makes and who is made in the relation between human and machine. It is not clear what is mind and what body in machines that resolve into coding practices. Insofar as we know ourselves to be cyborgs, hybrids, mosaics, chimeras. Biological organisms have become biotic systems, communications devices like others” (313). In this sense, then, the cyborg is a communication system that is very similar to a “network.” Like a network, the cyborg participates in communicative feedback loops as boundaries become blurred and “systems” become more important than “organisms.” Haraway has stated, “I prefer a network ideological image, suggesting the profusion of spaces and identities and the permeability of boundaries in the personal body and in the body politic. ‘Networking’ is both a feminist practice and a multinational corporate strategy – weaving is for oppositional cyborgs” (307). In this way, cyborgs are communication systems that are constantly changing.

Because the cyborg is a complex communication system that is constantly changing, it is also a figure that resists unity. Unity, in Haraway’s approach, is associated with rigidity, limitation, and traditional Western thought. Unity implies naturalness, and is therefore a mythological cultural construction. Haraway writes, “The cyborg skips the step of original unity, of identification with nature in the Western sense” (292). Indeed, the cyborg is an entity that can constantly be disassembled and reassembled, and as such, it becomes an optimum site for political resistance. Haraway claims that: “Any objects or persons can be reasonably thought of

in terms of disassembly and reassembly; no “natural” architectures constrain system design” (301). This particular thought seems to echo the sentiments of deconstructionist philosophers like Jacques Derrida and Paul de Man, in that it argues against one unitary “truth” or permanent totality. Even the truth of the “body-as-whole” is something that is subject to reconsideration. In her essay “Will the Real Body Please Stand Up?” Allucquere Rosanne Stone echoes the arguments of these deconstructionist theorists when she says that, “In all, the unitary, bounded, safely warranted body constituted within the frame of bourgeois modernity is undergoing a gradual process of translation to the refigured and reinscribed embodiments of the cyberspace community” (523). These new embodiments of cyberspace communities exalt the merits of impermanence and constant reconfiguration. Because the cyborg is prone to impermanence, and since it is a complex system that is constantly redefining its own boundaries, the figure of the cyborg almost resembles the network systems of modern computers, and can therefore be an ideal site for exchange and opposition.

Because the cyborg favors exchange and networking, the assumption is therefore usually that the cyborg is a communication system that is found outside of nature. However, it is important to remember that exchange also takes place in the natural environment, between ecosystems and among plant and animal life. Therefore, it is not surprising that Haraway argues that there is a place for the animal in discussions of the cyborg as well. She writes: “Perhaps, ironically, we can learn from our fusions with animals and machines how not to be Man, the embodiment of Western logos” (Haraway 310). It is the human that is to be transcended in Haraway’s model, whereas the blurring of boundaries between animal and man is to be encouraged. Bringing the animalistic element into the human is a form of emancipation. Allucquere Rosanne Stone notes the way that Nature has traditionally been set in opposition to

the cyborg body, since doing so has had a secondary function. She writes: “Nature, instead of representing some pristine category or originary state of being, has taken on an entirely different function in late twentieth-century economies of meaning...a construct by means of which we attempt to *keep technology visible* as something separate from our ‘natural’ selves and our everyday lives” (Stone 517). And Stone has a point; humans have traditionally needed the animal to be something “other.” However, Haraway reminds her readers of the liberatory effect of bringing the animal into the human via the cyborg. She states, “The cyborg appears in myth precisely where the boundary between human and animal is transgressed. Far from signaling a walling off of people from other living beings, cyborgs signal disturbingly and pleasurablely tight coupling. Bestiality has a new status in this cycle of marriage exchange” (Haraway 293). Again, Haraway proves that open exchange between all types of systems, whether they be organic, animalistic, mechanistic, or partly-human, is where hope for the future lies. Fluidity, and even to some extent disembodiment, are to be striven for.

Indeed, the closer to disembodiment a being can get in this model, the more pure they become, since mobility can be more easily maintained, and since communication can happen more easily. As Haraway points out:

Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum. And these machines are eminently portable, mobile – a matter of immense human pain in Detroit and Singapore. People are nowhere near so fluid, being both material and opaque. Cyborgs are ether, quintessence. (294)

Deborah Lupton, in her essay “The Embodied Computer/User,” takes Haraway’s ideas one step further, arguing that, “In an era in which risks to the health and wellbeing of the fleshly body

abound, in which ageing and death are feared, the cyborg offers an idealized escape route” (480). Therefore, while Haraway seems to value the cyborg for its lightness and mobility, Lupton seems to value the cyborg for its freedom from suffering and mortality. Interestingly enough, these same idealizations are also frequently found in discourses about children.

“The Child”

Utilizing the term “the Child” in discourses about childhood can be problematic since the term is inherently reductionistic and since it does not allow for varying kinds of diverse childhoods across cultures, nations, or classes. However, since the goal of this work is to discuss how childhood operates as a construction in literary and cultural texts, and how childhood has been constructed according to Western adult values and ideologies from the Romantic era to Modernism, it becomes difficult to avoid such terminology at times. It is important to note that any references to the figure of the child from this point on will refer to “the Child” as it has been constructed in Western texts from the late eighteenth century to the twenty-first century, with the full realization that all childhoods across all races, classes, nations and genders are equally important and interesting to consider.

Just as the cyborg is valuable to adult humans because it offers an escape from reminders of mortality and suffering, the figure of the child (as constructed in late Western texts) is valuable to adult humans because it also suggests a freedom from adult anxieties over loss of innocence, suffering, and mortality. Like the figure of the cyborg, the figure of the child has undergone periodic re-classifications over time. Rather than being a fixed and stable category of identity, childhood is a social construction that changes according to the inclinations of adults. Indeed, multiple childhoods can even exist simultaneously. Attention was first drawn to the constructed nature of childhood by French historian Philippe Ariès; one of the goals of his book,

Centuries of Childhood, was to argue that childhood did not “exist” during the Middle Ages, since children were not granted a distinctive social status apart from adults. As Ariès states:

In the Middle Ages, at the beginning of modern times, and for a long time after that in the lower classes, children were mixed with adults as soon as they were considered capable of doing without their mothers or nannies, not long after a tardy weaning (in other words, at about the age of 7). They immediately went straight into the great community of men, sharing in the work and play of their companions, old and young alike. (411)

Although Ariès’ arguments about the constructed nature of childhood are still widely accepted today, many scholars have since debated the accuracy of some of his controversial claims.

Scholars like Shulamith Shahar have argued that childhood really *did* exist in the Middle Ages, since textual material from this time reflects that parents believed children went through different phases of life or that parents devoted a lot of resources to children (Shahar 1). Other scholars, like Linda Pollack, have argued that historians should not depend on *documents* from the Middle Ages but rather on accounts of *what people actually did* when drawing scholarly conclusions about childhood (Pollack 3).

Ariès also argued that modernization was the catalyst for the development of the concept of childhood. Modernization allowed for more isolation of family units, while at the same time families gradually became child-centered (as did state systems and educational pedagogies). While children during the Puritan era were seen as inherently sinful and in need of guidance, children during the Romantic period were seen as uncorrupted and innocent, but still in need of educational guidance so that they would become good moral citizens. In his essay *Histories of Childhood*, John Clarke argues that, “The Puritan family in England or the American colonies was seen as an institution based on ensuring the salvation of family members by proper

education in the rules of good behavior and the importance of faith” (8). Primary documents from the Puritan era not only reflect the urge to educate children in terms of behavioral codes, but also the idea that children should grow up as quickly as possible. However, by the late Romantic period (the middle of the nineteenth century), society had become more modernized, family-centered, and material goods were more easily accessible. Because of this increasing urbanization, many writers and poets turned to pastoral themes as a way to express their longing for a more organic lifestyle. As Linda Austin argues in her essay “Children of Childhood: Nostalgia and the Romantic Legacy,” “At the break of the nineteenth century, that most romantic desire, the longing for childhood, produced one of the most romantic images, the innocent child of nature. Emotion and image were manifestations of a yearning for the past which we have since called nostalgia” (75). The figure of the child during this time began to become closely linked to nature, innocence, and nostalgia, largely in part due to Romantic poets like William Wordsworth or William Blake, who romanticized childhood in their poetry.

However, the images of children crafted in these collections frequently differed quite a bit from the lived reality of many children. As Clarke has noted: “For the great mass of the population of Western Europe countries like Britain and France, children’s lives were characterized by poverty, hard labour and exploitation. This set up a contradiction...between a romantic idealized view of childhood rooted in eighteenth-century Enlightenment and the brutal reality of most children’s lives” (8). This discrepancy is one of the primary reasons that social policy began to focus on the lives of children at this time, and why child psychology and child labor laws suddenly began to blossom. Such a discrepancy also highlights the constructed and often contradictory nature of definitions of childhood.

Additionally, the study of childhood development became a scientific field of study at the turn of the century and brought about many changes in terms of views of childhood and conceptions of adolescence. Social scientists like G. Stanley Hall helped to legitimize studies of adolescent/child behavior and psychology as a developing field.⁴ Parents became more focused on having children for emotional rewards rather than financial ones. The combination of this focus, in conjunction with advancements in technology, resulted in a decline of average family size. Parents began to focus more intensely on the material, educational, and emotional aspects of their children's lives. For this reason, the twentieth century has been called the "century of the child" (Clarke 10). Children growing up in this century had more power, independence, and agency than any children had had previously in other centuries, and parents who doted on these children began to have less. Also, around this time, Freudian theories began to circulate in Western culture, and childhood began to become linked to adulthood in unique new ways. As adults struggled to come to terms with increasing urbanization and the repercussions of two world wars, they began to look inward in the hopes that they could find some sort of comfort or peace. Nostalgia for one's own childhood began to become linked to the need to analyze memories and emotions from early childhood, in the hopes that such analysis would lead to a better understanding of one's own psyche. At the same time, Freudian theories of the unconscious and/or primal drives began to be brought to light, and adults began to associate childhood to some degree with primitivity and even with a susceptibility to trauma. Thus, the figure of the child became a site of contradicting desires, nostalgia, anxiety, and fear.

Similarities Between Children and Cyborgs

Since both the figure of the cyborg and the figure of the child become depositories for adult desire and anxiety, there are more similarities between children and cyborgs than one might

⁴ See Hall, G. Stanley. *Aspects of Child Life and Education*. Ed. Theodate L. Smith. Boston: Ginn, 1907. Print.

initially expect. Both entities function as liminal figures. As Erica Burman states, “Here Julia Kristeva’s concept of the ‘abject’ seems apt. The abject is ‘the place where meaning collapses’ (Kristeva, 1982:2). It does not ‘respect borders, positions, rules’ but rather ‘disturbs identity, system and order’ (ibid., 4)” (Burman 172). Both children and cyborgs threaten the very nature of what being an adult human has traditionally meant. Burman claims that this is because: “Children are constantly being granted new (cognitive or communicative) abilities that undermine presumed developmental thresholds (whether of ages or stage). Similarly, the cyborg is daily proclaimed as becoming more sentient, more human-like, troubling the specific place of *human* ‘being’” (172). Therefore, both children and cyborgs could theoretically pose potential threats to adult humans.

The two figures of the child and the cyborg also both serve as loci for conflicting adult human emotions. Cyborgs and children become a site for adult human fantasy as well as a site for adult human trepidation. Burman acknowledges this when she writes:

In their different ways, and for different reasons, the image both of the child and the cyborg, now unhinged from their previous displacements and safely beyond the bounds of reason or morality, throw previous certainties into question and usher in themes of undifferentiation, as well as the disgust and horror that attends disintegration of hard-won boundaries. In complementary ways, then, both child and cyborg offer an annihilation of self that is both feared and desired; feared because they challenge definitions of human values and qualities, and desired because they seem to offer escapes from the agonies (of mortality and embodiment) that flow precisely from these. (172)

In this way, Burman acknowledges that there are several similarities between children and cyborgs. Both symbolize non-differentiation as well as the annihilation of the self and the escape from mortality and/or embodiment.

However, a good deal of Burman's essay "The Child and the Cyborg" focuses on fleshing out the differences between these two entities. For instance, Burman claims that the figure of the cyborg is a site for possession. She states, "The cyborg is typically less a site for identification than possession, of envious appropriation rather than empathy" (Burman 171). But she contrasts this to the figure of the child, a figure she claims is a site for identification. Therefore the cyborg is something "othered" because it is different and from a distant future, whereas the child is a figure that is "identified with" because it represents a past state-of-being that is both longed for and romanticized. While this is an astute observation, Burman doesn't discuss the fact that adult identification with children, or the adult romanticization of childhood, is also a form of possession, in the sense that it creates a fetishization of children as well as an adult desire to control what is fetishized. Burman claims that the cyborg threatens mastery, whereas the figure of the child represents dependency. She writes, "In different ways each therefore expresses a theme of insecurity of human experience" (Burman 172). In Burman's model the figure of the child is something that is familiar and it is a figure that is symbolic of humanist sentiments, whereas the cyborg is something that poses a greater threat to the adult human because it isn't associated with humanism. Rather, as Burman argues, it "seems a more uneasy site for humanist attributions" (171). Although these are interesting arguments to consider, Burman fails to describe the way that the figure of the child, too - when left "untamed" and "undisciplined" - can also pose a threat to adult mastery and become a site of anxiety.

The most important difference between these two figures that Burman notes in her essay is the way that the figure of the child symbolizes a past adult humans long to reclaim, while the cyborg represents something that challenges the idea of linear progress. For this reason, Burman begins to question whether the cyborg might have more revolutionary political potential than the figure of the child, due to the fact that the cyborg doesn't try to reclaim something that is a product of a capitalist patriarchal society. Burman writes, "In this sense the cyborg – in its isolation, its unique and freakish aspects – does invite some identifications for the alienated (post)modern subject struggling to achieve ontological security" (181). Initially, for Burman, the figure of the child will always exist in the historically linear progression of man's development, whereas the figure of the cyborg seems to exist in a narrative *beyond* the human (since it evades historical linearity and eludes identification).⁵ Burman ultimately concludes, however, that both the figure of the child and the figure of the cyborg can become dangerous if allowed to serve as sites for adult humans' abject fantasies. The cyborg, she argues, does not truly fall outside the bounds of the human, since it does indeed function as a site for abject fantasy (in terms of a desire to escape the human body). Drawing upon Barbara Creed's argument about the domain of the abject,⁶ Burman claims that sites which serve as depositories for abject desire always function within the realm of Western subjectivity. Subsequently the cyborg, like "the Child," cannot exist outside of Western thought, and thus cannot be completely politically subversive.

⁵ For other arguments about historical non-linearity and the posthuman, see Halberstam, Judith, and Ira Livingston. *Posthuman Bodies*. Ed. Judith Halberstam and Ira Livingston. Bloomington: Indiana UP, 1995. 3-4. Print.; Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." *The Cybercultures Reader*. Ed. David Bell and Barbara M. Kennedy. New York: Routledge, 2000. Print.; and Braidotti, Rosi. "Posthuman, All Too Human: Towards a New Process Ontology." *Theory, Culture & Society* 23.7-8 (2006): 197-208. Print. (which compares Haraway's arguments to Deleuzian philosophy).

⁶ For a foundational definition of "abjection," please see Kristeva, Julia. *Powers of Horror: An Essay on Abjection*. New York: Columbia UP, 1982. Print. (in which Kristeva implies that "the abject" is that which is not the self, the place where meaning collapses, the jettisoned object). For Creed's explanation of "abjection" (as that which threatens life or the self) see Creed, Barbara. *Horror And The Monstrous Feminine: An Imaginary Abjection*. London Routledge, 1993. 65. Print.

While Burman's analyses of the differences and similarities between the figure of the child and the figure of the cyborg are not only interesting and valuable, Burman chooses to focus the second half of her essay on fleshing out the differences between cyborgs and children (even though she ultimately concludes that they are more similar than oppositional). And although this tangential focus may not be problematic in and of itself, the fact that Burman devotes so much space to contrasting the figure of the child and the figure of the cyborg, in conjunction with the fact that Burman ends her essay by linking these two entities (without questioning what the implications are for doing so), is somewhat perplexing. Some of the similarities that Burman draws between the figure of the cyborg and the figure of the child invite further speculation; for instance, what does it mean to imply that both children and cyborgs "inspire visions for the future" (Burman 175)? What are the consequences of implying that both figures are birthed out of the costs of capitalism? And what are the repercussions, outside of a political context, of claiming that both figures simultaneously repel and attract the adult human? In addition to speculating about why Burman has not analyzed the ramifications of the similarities she mentions, readers of Burman's article will also inevitably question whether or not there are additional similarities between the figure of the cyborg and the figure of the child. What role does innocence play in the construction of each of these identities? How is the concept of communication tied to both children and cyborgs in a way that is similar? Why hasn't a thorough review been conducted on the way that children and cyborgs get linked in textual representations and popular media, and what are the potential dangers of such associations?

Linking the figure of the child to the figure of the cyborg is not something that should be taken as lightly as Burman's work would indicate. Although constructions of child-cyborgs can be positive and useful in certain situations, all too often the construction of the child-cyborg

becomes regressive in the hands of adults acting out of subconscious agendas. It is extremely important to critically acknowledge that there has been a vast body of work over the last century that has linked the figure of the child to the figure of the cyborg (a body of work which has long gone unanalyzed in terms of scholarship), and to consider the repercussions of such constructed relationality. As later chapters of this project will discuss, the linking of the figure of the child to the figure of the cyborg can be, but is not always, dangerous. “Othering” children in the same way that the figure of the cyborg is sometimes “othered” creates a greater gap between lived adult experiences and lived childhood experiences. By comparing children to regressive models of cyborgs in popular media and cultural discourses, children might more easily become loci of contrasting adult emotions of desire and fear. Child-cyborgs, subsequently, may potentially become doubly-differentiated “others” that get pushed even further outside the margins of “normal” human identity. Therefore, it is possible that child bodies may more easily become sites of curiosity and experimentation in literature and media, as well as in actual lived experience. By depicting child-cyborgs as radically-differentiated “others” in various forms of mass media (such as novels, television, and film), the bodies of real children may become endangered, due to the fact that similar types of experimentation may become more acceptable to perform on actual child bodies in actual lived experience. Therefore, an analysis of such media is desperately needed in order to better understand why and how the connection between the figure of the child and the figure of the cyborg happens, and how such representations could be potentially problematic for real children’s bodies. But before beginning a discussion of the literature and media that have linked the figure of the child to the figure of the cyborg or that have featured child-cyborg characters, an analysis of the historical and situational factors that

allowed for this alliance between the figure of the cyborg and the figure of the child to occur with such ease must be considered.

CHAPTER 1

Manufacturing Tots and Robots:

A Genealogy of “the Child” and “the Cyborg” in Western Society

Each era invents its own child. Over the past 500 years, conceptions of the child changed gradually from an ill-formed adult who must be subjugated to society's goals to a precious being who must be protected from unreasonable social demands. Childhood has come to be seen as a special period of life, rather than as a temporary state of no lasting importance for adulthood.

-- Sandra Scarr, *Mother Care, Other Care*

Cyborgs were a dream long before there were even machines.

-- Chris Hables Gray, *Cyborg Citizen: Politics in a Posthuman Age*

The figure of the child and the figure of the cyborg are cultural constructions, but these constructions are also grounded in material reality. The material bodies of children and the material bodies of cyborgs are often influenced by, as well as inspirations for, representations of children and cyborgs in popular mediums. Since these two identities are frequently linked in popular discourses to conceptions of perfection or immortality, both children and cyborgs inherently call into question considerations of the material body. The child body and the cyborg body are therefore both constructions and lived realities which operate at the margins of adult human experience; in addition, they function as sites of experimentation for human adults who are both envious and fearful of their liminality. Therefore, a genealogy of both figures (and of the figure of the child-cyborg itself) must focus its aims upon a history of not only representational constructions but also upon the histories of real bodies and the way they are disciplined, fetishized, or manipulated by human adults. An archeological genealogy of treatments of both child bodies and cyborg-bodies in Western history can reveal many paradoxical, controversial, and provocative illustrations demonstrating the way bodies can potentially become mythologized and mediated through discourse and/or material practices.

An archeological genealogy of children and of cyborgs reveals that the alliance between the figure of the child and the figure of the cyborg (which together form the figure of the child-cyborg) occurs so frequently for a few very important reasons, most of which center around concepts of embodiment. The bodies of children and the bodies of cyborgs have historically both been loci for two conflicting adult emotions: *desire* and *anxiety*. Such bodies have been sites for a wide array of adult desires – the desire for immortality, the desire for an innocence unsoiled by the experiences and everyday realities of the adult human world, the desire for a physical beauty untainted by human imperfection, and a desire for futurity and change in terms of human civilization. Likewise, the bodies of children and the bodies of cyborgs have also been sites for a wide array of adult anxieties – anxieties over the ability to master and control what is “other,” anxieties over lost possibilities of innocence, immortality, or physical perfection, anxieties about tensions between technology and nature, and anxieties over the difficulty in determining or defining what it means to be “truly human.” Because the bodies of children and cyborgs have so much in common in terms of the way they inspire both desire and fear in adult humans, the lines between these two types of embodiments often become blurred, and the figure of the child-cyborg begins to emerge out of this confusion.

The development of the child-cyborg simply cannot be understood without first conducting a comprehensive examination of constructions of the figure of the child and the figure of the cyborg independently. These two identities frequently emerge, re-emerge, and overlap with each other at various stages throughout history. Therefore, a linear archeology of the two identities will not generate the same sort of illuminations in relation to the figure of the child-cyborg that a Foucauldian genealogy of these subjects will. Much as sociologist Michel

Foucault's historical archaeologies of subjects such as madness, criminality, and sexuality⁷ revealed the contradictory ways that ideas about insanity, punishment, and perversity have been viewed at times in Western discourse, a historical genealogy of children and cyborgs may illuminate the way that each of these concepts have operated independently and often concurrently as constructions in Western society.

Other scholars have previously attempted historical genealogies of childhood or cyborgs independently, but few genealogies have focused on the relationship *between* children and cyborgs. For instance, in books such as *Centuries of Childhood*, by Philippe Ariès, historians have attempted to formulate chronologies of childhood, while arguing that childhood simply did not exist prior to the seventeenth century. Similarly, Chris Hables Gray, in his book entitled *Cyborg Citizen: Politics in the Posthuman Age*, has touched on the historicity of the figure of the cyborg, arguing that cyborgs have existed long before the dawn of machines. But since representations of child-cyborgs in popular images and texts have grown more and more frequent throughout the twentieth and twenty-first centuries, it is important to review the associations between children and cyborgs in Western history.⁸

The Classical Age

Philippe Ariès has argued that it was only with the solidification of the family as an institution after the fourteenth century, and/or the appearance of iconography depicting children as pious and innocent between the fourteenth and seventeenth centuries, that modern conceptions of childhood began to form. Although many scholars have followed in Ariès' footsteps by

⁷ For Foucault's genealogies of these subjects, see Foucault, Michel. *Madness and Civilization: Insanity in the Age of Reason*. New York: Pantheon, 1965. Print.; Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. New York: Pantheon, 1977. Print.; and Foucault, Michel. *The History of Sexuality*. New York: Pantheon, 1978. Print.

⁸ Although considering histories outside of the "western" world would be too ambitious for the scope of this project, the choice to exclude non-western cultures in this work does mean that other histories should be disregarded, nor is it an attempt to privilege "the West" over other cultures.

highlighting the socially constructed nature of childhood, or by supporting the claim that childhood was not an acknowledged category of identity prior to the seventeenth century, such research does not discount the importance of studying adult-youth relationships prior to seventeenth century developments.⁹ Children have always existed, even if childhood itself was not differentiated from adulthood, and children's bodies have always been a site of interest and controversy throughout history. Of course, any genealogy of Western childhood as a historical concept should arguably begin with adult-youth relations during Classical Antiquity,¹⁰ or in other words, with recordable Western history. In Antiquity, the child body was treated in many contradictory and surprising ways. Children were treated almost indifferently from the time of their birth. As they aged and approached citizenship, however, they became greatly respected.

The birth of children in Ancient Greece was not a time of idyllic reverence. If an infant survived the oftentimes difficult delivery, the child was left unnamed until the tenth day after birth. As Charles Gulick writes in his book *The Life of the Ancient Greeks*, "On the tenth day, then, the child was presented to its nearest relatives and the most intimate friends of the family; its right to life and to a name was formally recognized by the father, for, unhappily, the exposure of infants, especially of girls, was common in antiquity" (74). If parents decided that an infant should be exposed, it was left in a basket outdoors where it was likely to be attacked by wild animals, or suffer from dehydration, hunger, or changes in temperature or weather.

⁹ For further examples analyzing childhood as a social construction, see James, Allison, and Adrian L. James. *Constructing Childhood: Theory, Policy, and Social Practice*. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2004. Print.; Woodhead, Martin. "Early Childhood Development: A Question of Rights." *International Journal of Early Childhood* 37.3 (Nov 2005): 79-126. EBSCO. 28 May 2012. Web.; Heywood, Colin. *A History of Childhood: Children and Childhood in the West from Medieval to Modern Times*. Cambridge, UK: Polity, 2001. Print.; and Cunningham, Hugh, and Michael Morpurgo. *The Invention of Childhood*. London: BBC, 2006. Print.

¹⁰ For the purposes of this work, Classical Antiquity will span Ancient Greek society, beginning approximately in 8th century BC, through the Roman Empire (ending in approximately the 6th century AD).

On the other hand, once an infant made it through this period, the child was looked upon favorably and was assigned various roles of great importance according to its gender. Girls, although kept inside the home with their mothers and unable to participate in public Greek affairs of any kind, were given ritual tasks to perform in Greek religious life (such as weaving garments for celebrated goddesses, washing the statues of religious icons, or marching in ritualistic celebrations or parades). Male children granted citizenship status were looked upon even more favorably than girls, because they perpetuated the family lineage and property. Greek boys were educated in schools and trained in sports like wrestling, boxing, and running by private instructors. As Gulick observes, “Boys of aristocratic birth were trained in the use of arms and in military tactics” (81) as well. These sorts of athletic activities and armament trainings were designed to prepare young boys for later participation in competitions, festivals, or battles that would bring Greece pride (like the Olympics).

In much the same way that childhood can be traced back to the beginning of recordable Western history, the cyborg, too, has ancient origins. In *Cyborg Citizen: Politics in the Posthuman Age*, Chris Gray states that, “Humans have always designed our own sentient creatures in myths, beginning with ancient Greek and Hindi tales that describe strange, half-flesh/half-metal creatures, and many other stories that frame humans as automatons, artifacts animated by gods and goddesses” (4). Examples include the Kourai Khryseai that Homer describes in the *Iliad*, golden maidens with human-like intelligence that attended the god Hephaistos on Mount Olympus, or the story of Daidalos and his golden statues that could feel human sensation. It is also necessary to mention the more animalistic cyborgs of Greek lore, mythical creatures of half-human and half-animal anatomy, such as the infamous Sphinx, the centaurs featured in so many Greek tales, or the figure of Icarus and his bird-like wings.

Likewise, animated statues such as Talos the giant or the legendary demon-woman Empusa with her leg of bronze are examples of cyborgs. Finally, the mathematician Archytas who lived during the years 428-347 B.C., also invented a real mechanized automaton figure resembling a flying pigeon. Although the majority of cyborgian references in Greek culture were mythological in nature, these legendary figures were nonetheless early antecedents of the cyborgs, androids, and automata that appear in culture today.

Roman attitudes, also, mirrored the contradictory approaches of the Greeks towards both children and cyborgs. The Roman court poet Claudian's poetry reveals the ever-increasing tendency during the fourth century to separate children into *infantia* (infancy or babyhood) and *pueritia* (childhood); but Roman *infantia* were hardly treated less harshly than Greek infants were treated. The practice of exposure was still quite common. Beryl Rawson, in his book *The Family in Ancient Rome: New Perspectives*, points out that, "Such foundlings [infants abandoned through exposure] could be assumed to be of slave status, although the law made it possible for freeborn children to recover their free status later if they could provide proof of it" (172). Later, with the appearance of Augustine of Hippo, came a new rationale for the intensive corporeal punishment of Roman children. Augustine popularized the concept of Original Sin throughout Rome during the late fourth and early fifth centuries, and proposed that children were born as sinners and needed to be trained if they were to become respectable adults. Thomas Wiedemann, in *Adults and Children in the Roman Empire*, recognizes this important link between Augustine and corporeal punishment when he states "As we have seen, beating children was taken for granted in Graeco-Roman antiquity. What Augustine did was provide a new rationale for the practice: children should be beaten, not as a sign that they were not fully adult, but because they

needed coercive punishment in *exactly the same way* as adults” (105). Therefore, children were often treated poorly during the Roman Empire.

However, children were also given more and more responsibilities in terms of the role they played in Roman religious life, particularly as Christianity began to gain popularity. Christians and Jews dealt with high infant mortality rates by granting children equal status with adults in the religious community, unlike citizens in the earlier classical period (who had mostly excluded children from public events). Wiedemann astutely points out the impact of Christianity on concepts of childhood by observing that: “In certain respects religious beliefs directly affected behaviour – for instance, by categorizing infanticide as murder” (204). Thus, children were beginning to be viewed with slightly more esteem towards the end of the Roman Empire, although Roman adults still continued to display sometimes contradictory and ambivalent attitudes towards children as a whole.

Just as Roman attitudes towards childhood closely mirrored the ambivalent attitudes towards childhood that Greek culture often expressed, the Roman military produced cyborg-soldiers in much the same way that the city-state of Greece did. Young boys, once they had reached an approximate age of fifteen, participated in numerous military camps and training exercises. Foucault states, “The Rome of the eighteenth century and of the Revolution was the Rome of the Senate, but it was also that of the legion; it was the Rome of the Forum, but it was also that of the camps. Up to the empire, the Roman reference transmitted, somewhat ambiguously, the juridical ideal of citizenship and the technique of disciplinary methods” (146). In addition to the militarized cyborg, historical Roman texts also afford glimpses of early mechanized and/or cyborgian figures. One example is Hero of Alexandria and the descriptions of the automata he created for pageantry and stagecraft in the first century A.D. Likewise,

Ovid's *Metamorphoses* and the tale of Pygmalion's stone daughter brought to life present an arguable example of an automaton-human hybrid. In this way, then, precedents of the cyborg also surface in Roman discourse in much the same way they surface in analyses of Greek culture.

The Middle Ages

The development of Christianity and the growth of numerous churches in Roman times continued well into the Middle Ages,¹¹ and with this growth came many new ideologies about children's role in society. The concept of childhood innocence first begins to emerge around this time, since children were frequently viewed as being ignorant to concepts of pleasure and sin, and since they were seen as being Christ-like and free of sexual knowledge. For this reason, children were not restrained from touching their bodies or from roaming freely in and out of adult conversations. Indeed, children were openly encouraged to participate in adult activities. The division, then, between children and adults was not rigid at this time, in spite of the fact that mothers were beginning to grow increasingly more focused on their children.¹²

In addition, gender differences were rarely observed early in life, and children were treated almost as neuter.¹³ No sex was designated in child burials in 14th century Italy, as M.J. Tucker notes in his essay "The Child as Beginning and End." But Tucker concludes that: "Nonetheless, they [adults of the time] sometimes saw children, if mostly asexual, as agents of evil" (233). Children were not seen as naturally good or innocent, but rather had to be baptized and molded into proper human beings, as the writings of religious figures such as John Dominici

¹¹ For the purposes of this work, the Middle Ages will refer to the period from roughly the 5th to the 15th centuries AD.

¹² For further discussions on how children were looked upon more tenderly during the Middle Ages, see Lyman, Richard B. "Barbarism and Religion: Late Roman to Early Medieval Childhood." *The History of Childhood*. Ed. Lloyd deMause. New York: Psychohistory, 1974. Print. or McLaughlin, Mary Martin. "Survivors and Surrogates." *Medieval Families: Perspectives on Marriage, Household, and Children*. Ed. Carol Neel. Toronto: Published by University of Toronto in Association with the Medieval Academy of America, 2004. Print.

¹³ For further elaboration upon the constructed nature of gender, please see Irigaray, Luce. *To Speak Is Never Neutral*. New York: Routledge, 2002. Print.

reflect. These beliefs about molding children into adults sometimes resulted in ethically questionable practices.

As scholar Lloyd deMause has noted in his essay “The Evolution of Childhood,” confining swaddling practices, aggressive disciplinary measures, and abandonment practices continued to occur at this time. He states: “Once parents began to accept the child as having a soul, the only way they could escape the dangers of their own projections was by abandonment, whether to the wet nurse, to the monastery or nunnery, to foster families, to the homes of other nobles as servants or hostages, or by severe emotional abandonment at home” (deMause 51). During the late Middle Ages, children were frequently sent off to *balia*, or wet-nurses, who were sometimes in charge of raising the children for two years while children had little or no contact with their biological families. Noted child historian Philippe Ariès observes the way that the practice of apprenticeship during this time displaced traditional forms of educational instruction, claiming that: “It would be a mistake to describe medieval education in terms of the school: this would be to make a rule of an exception. The general rule for everybody was apprenticeship” (367). The need to acquire apprenticeships forced children to grow up quickly.

Although the abandonment practices of children during the medieval period were ethically questionable, it would be too easy to say that all children during the Middle Ages were treated poorly by their families and communities. An increasing conscientiousness was developing on the part of young mothers of the time, and this conscientiousness continued to widen and develop, with a particularly notable escalation around the dawn of the eleventh century (or what historians frequently refer to as the High Middle Ages). In her discussion of the rise of illegitimate children during this time, and of the concerning conditions of exploited poor women who bore these illegitimate children, Mary Martin McLaughlin notes, “It was in this

period, too, from the late eleventh century onwards, that both categories of victims, mothers and children, began to compel the serious attention of those powerful figures who were most active in the reforming and ‘evangelical’ movements of the age” (122). An increasing concern for children in written literature surfaced as well. By the end of the late Middle Ages, with the dawn of the Italian Renaissance and the Early Modern period, concepts of childhood began to change.

Just as the figure of the cyborg can be traced back to its early ancient prototypes in Greece and Rome, mechanized figures also appeared during the Middle Ages. Examples include the popular legends of the time about Roger Bacon’s talking “Brazen Head” or Albertus Magnus’ infamous “Iron Man.” In his book *Free Energy Pioneer: John Worrell Keely*, Theo Paijmans writes that, “This iron man purportedly served Albertus Magnus for years, opening doors for guests, asking what they wanted and deciding whether or not they could see his master” (296). Although the nature of these android-like figures is difficult to ascertain, since mentions of them are only found sporadically throughout historical texts, there were other more obvious examples of mechanical figures in the Middle Ages. One particularly noteworthy example was the seven-hundred-year-old Astronomical Clock in Prague which showcased a skeleton figure who would ring a bell when the clock tower chimed or which displayed various animated figures moving across the clock’s top alongside representations of the twelve apostles.¹⁴ Similarly, a Venetian engineer named Giovanni Fonatana worked to craft various mechanical dolls and rocket-propelled animal automata in the early 1400s.

But more traditionally cyborgian figures also began to surface during the late Middle Ages. The inventions and drawings of Leonardo DaVinci point to a growing awareness of the human body as a scientifically-observable machine. DaVinci’s famous sketch of the Vitruvian

¹⁴ For a more detailed analysis of these clocks and animated figures, please see Cipolla, Carlo M. *Clocks and Culture: 1300-1700*. New York: Norton, 2003. Print.

Man in 1487 reflects this trend and arguably presents us with a cyborgian figure. DaVinci's most noteworthy design for a mechanized figure, though, was his legendary "robot," a figure which he presented at a celebration in the court of Milan before Duke Sforza. This figure, which resembled a warrior clad in medieval armor, could stand, sit, raise its visor, and maneuver its arms. In the following century, around 1560, a man named Juanelo Turriano is reported to have developed an automaton resembling a monk, one which could walk in a square, beat its chest, and perform gestures of the rosary. Additionally, many historians mention the German knight Gottfried ("Gotz") von Berlichingen and his infamous mechanical prosthetic iron arm which was crafted to replace an arm he had lost during a military siege in 1504. Prosthetics were becoming more popular in the 1500s, and French captain Francois de la Noue also was reported to have an iron arm with an attached hook for a hand. Therefore, it seems cyborgian figures were becoming more and more widespread during the late Middle Ages, particularly since von Berlichingen and la Noue were quite literally cyborgs. In the approaching centuries there would soon be an explosion of increasingly industrialized cyborgs,¹⁵ and both cyborgs and children would never be the same after the Early Modern Era, the subsequent Industrial Ages, and the Modern period of the twentieth century.

The Emergence of the Modern Child and the Mechanization of the Body

As Friedrich Engels and Marxist theory have demonstrated, the monogamous nuclear family developed early on in Western history.¹⁶ But the modern family as it exists today did not begin to take shape until sometime around the fourteenth century, and continued to evolve in the

¹⁵ For a comprehensive discussion of cyborgs and machines around the time of the European Renaissance, see Sawday, Jonathan. *Engines of the Imagination: Renaissance Culture and the Rise of the Machine*. London: Routledge, 2007. Print.

¹⁶ See Engels, Friedrich. *The Origin of the Family, Private Property, and the State*. London: Penguin Classics, 2010. Print.

sixteenth and seventeenth centuries.¹⁷ In an important exploration of the surviving iconography from the Early Modern period, historian Philippe Ariès theorizes that three concepts began to emerge in art of this period: concepts of piety, childhood, and the family itself (which all eventually began to become synthesized together).¹⁸ Many paintings depicted a young child leading the family in dinner prayers or an innocent young Christ-child with his mother Mary. Not only did the first depictions of childhood innocence appear in this era, new conceptions of children as sexual beings were also becoming more and more apparent in painting. Although Renaissance artists were obsessed with depicting scenes of mothers and children, many of these images depicted children in increasingly sexualized poses.¹⁹ It is also interesting to note that at the same time children were becoming increasingly sexualized, they were also more and more often depicted in pious scenes of religious iconography. Hence, concepts of childhood innocence and sexuality have often been historically intertwined and the child body began to draw more attention as notions of children's innocence and sexuality changed.

In general, the human body was increasingly becoming a point of interest in the seventeenth century. Many scholars of cyborgian and posthumanist theory point to the late seventeenth century as a period when mechanizations of the body were becoming more and more common and as a period in which technological and scientific advancements began to result in more and more cyborgian approaches to the human body. France in the seventeenth century was the birthplace of an explosion of mechanical toys and automata, for instance. Most notably, Athanasius Kircher, a German Jesuit scholar, developed an automaton statue that spoke and

¹⁷ For a discussion of the emergence of the modern family, see Ariès, Philippe. *Centuries of Childhood: A Social History of Family Life*. New York: Knopf, 1962. Print.

¹⁸ For the purposes of this work, the Early Modern period will refer to the period from roughly 1500 AD to the late 1700s or the "Age of Revolutions."

¹⁹ For a more detailed discussion of sexuality and Renaissance paintings of children, see deMause, Lloyd. "The Evolution of Childhood." *The History of Childhood*. New York: Psychohistory, 1974. Print.

listened through a speaking tube. Louis XIV was reported to play with a miniature automaton toy coach around the year 1649, and in 1688 General de Gennes constructed a mechanical peacock that walked and ate. In addition, Enlightenment philosophers of the seventeenth century, such as Descartes, Newton, and Willis, would forever change scientific methodology and studies of the human body towards the latter half of the century. In Allison Muri's book *The Enlightenment Cyborg: A History of Communications and Control in the Human Machine 1660-1830*, the author argues that: "Both man-machine and cyborg exist because of the important assumption, established in the Enlightenment, that humans can be defined in the same terms and by the same physics as machines – that is, the assumption that the relationships of matter, energy, and force are common to both natural and artificial organisms" (22-23). Muri goes on to claim that "Rene Descartes' distinction between mind and body – the unitary subject separate from the material world of three-dimensional bodies – informs the literature of the cyborg" (13). Muri is correct in many ways; Descartes' separation of the mind from the body would have a great impact upon the belief that the body was a machine separate from the mind (or soul), and for centuries scholars would continue to portray the soul as something that "inhabited" the body, like a "ghost" inside a machine. Newton and Willis' conceptions of "aether" would also do a great deal to popularize the mechanistic approach to the body, as would the literary works of authors like Swift, Pope, and Coleridge in the seventeenth and eighteenth centuries. This growing obsession with the body as machine may have had something to do with changing attitudes about science and mortality at the time.

When discussing mortality during this period, it is important to note that child mortality rates continued to reflect the dangers inherent in daily life for children. Although wet-nursing and abandonment practices were admittedly beginning to decrease somewhat during the

seventeenth century, the number of yearly child-deaths remained extremely high.²⁰ However, a slight change was beginning to occur. More and more separation was beginning to occur between children's worlds and adult worlds. This is reflected in the way that parents began to wait slightly longer to send their young children out for apprenticeships or for working outside the home. Joseph E. Illick states in "Anglo-American Child-Rearing" that "By the middle of the seventeenth century, parents were hanging onto their children a few years longer" (321). Illick indicates that many children stayed at home until the age of ten. However, this did not mean that children were not sent away to boarding schools or grammar schools very frequently. Indeed, the institutionalization of the school would have a dramatic effect on children and childhood.

Proto-Industrialization

At the end of the sixteenth century and well into the seventeenth century, there was a noticeable change in cultural attitudes about the relationship between children and schools. Renowned philosophers such as John Locke published texts that suggested children should be treated as rational creatures or that advocated the use of discipline in education. Locke notoriously claimed that: "The discipline of desire is the background of character."²¹ Authors like Jean-Jacques Rousseau would continue to advocate the importance of scholastic education in the mid-seventeenth century. Rousseau claimed that, "Plants are fashioned by cultivation, man by education" in his book *Emile, or On Education* (11). But what were the catalysts for these changes? In *Children and Childhood in Western Society Since 1500*, Hugh Cunningham claims that it was initially religion which acted as the catalyst for the increase in the

²⁰ This statement is based on research found in: Cunningham, Hugh. *Children and Childhood in Western Society Since 1500*. Harlow, England: Pearson Longman, 2005. 91. Print.

²¹ Locke presented his theories about desire and discipline in his 1693 book *Some Thoughts Concerning Education* (see Locke, John. *Some Thoughts Concerning Education and Of the Conduct of the Understanding*. Ed. Ruth W. Grant and Nathan Tarcov. Indianapolis: Hackett Pub., 1996. Print.)

popularity of schools. Cunningham also claims, though, that children were vocationally trained within scholastic institutions so that they could aid their families economically.

Considering Foucault and his arguments about “docile bodies” or “disciplinary institutions,” such institutionalizations of the school during the seventeenth and eighteenth centuries can be seen as a sort of mechanization of the body as well. In *Discipline and Punish*, Foucault states, “The disciplinary institutions secreted a machinery of control that functioned like a microscope of conduct; the fine, analytical divisions that they created formed around men an apparatus of observation, recording and training” (173). Since the figure of the cyborg is, then, primarily a human body which is mechanized, the institution of the school during the eighteenth century worked to create child-cyborgs with docile bodies that were trained and mechanized so that they might eventually grow into “proper” adult citizens. Foucault also clarifies that: “The historical movement of the disciplines [in the eighteenth century] was the moment when an art of the human body was born, which was directed not only at the growth of its skills, nor at the intensification of its subjection, but at the formation of a relation that in the mechanism itself makes it more obedient as it becomes more useful, and conversely” (138). This mechanization of the body, then, applied to all of society.

The growth of eighteenth century disciplinary institutions such as hospitals, factories, and military barracks further demonstrates this trend of mechanization. This trend is also evidenced in the many eighteenth century examples of automata or cyborgs that appear in historical documents. Jacques de Vaucanson, for instance, was a famous French inventor who developed a cyborg in 1737. Called *The Flute Player*, this cyborgian figure was life-size and was crafted to resemble a flute-playing shepherd. Vaucanson gloved the automaton’s flute-playing hand in human skin so that the machine could better place its fingers over the finger holes of the flute.

Most important in an analysis of child-cyborgs, however, was an invention Pierre Jaquet-Droz crafted between 1768 and 1774.

Jaquet-Droz was a Swiss watchmaker who designed a group of automata which were programmable as well as changeable. The three figures were named “The Writer,” “The Musician,” and “The Draughtsman.” The two male figures, “The Writer” and “The Draughtsman” are both about the age of three and are seated at desks upon which they work at writing and drawing respectively. These three figures have been deemed the first “androids” or “computers” by some scholars. “The Writer” is extremely interesting to consider since it was both the first of the three android figures Jaquet-Droz crafted, and since it is also what some have argued to be the first complex android developed in history (because it was programmable). Interestingly enough, it is also a child. Jaquet-Droz invented this figure in order to entertain, but also to educate. The android was intended to function as a model for medical research, and the fabrication of artificial organs and prostheses, as well as to increase sales among watchmakers.

Several important questions about “The Writer” must be considered then. The first, for instance, is what does it mean that the figure of a child might have been the first android or programmable computer? It may be possible that adults were using “the child body” in this case to understand the modernization of society or their own fears about mechanizations of the body. Additionally, what might it mean that “The Writer” was also intended to be an educational model that could help aid scientific or medical discoveries? Jaquet-Droz’s machine seems to be a sort of experimentation, a study which sees “the child body” as a legitimate site for exploration in terms of science and medicine. And finally, this particular automaton links together various themes of creativity, childhood, and mechanization that would continue to be pressing concerns for adults in subsequent centuries (particularly in the Romantic era). By linking a child to an art-

form such as writing, which frequently symbolizes creativity or creative inspiration, was Jaquet-Droz making a commentary on the mechanization of creativity in the seventeenth century? Was he romanticizing children for their perceived natural gifts of creativity, wonder, and innocence? Or does placing a child writer at a desk simply symbolize the growing trend of the time towards disciplining children through educational practices? It was, after all, becoming more and more common to see children trapped behind a school-desk at this time, since the institutionalization of the educational system was developing.

However, although education gained increasing importance during the seventeenth century and eighteenth centuries, such schooling was often displaced by more immediate needs related to a family's basic economic income. Children during the eighteenth century, prior to the dawn of the Industrial Revolution, frequently worked inside their family unit to bring income into the household.²² Rather than setting off to find work in cities or factories, then, children usually stayed home. If children did work outside of the home, it was typically to complete a short stint of domestic servitude or to acquire an apprenticeship in a useful trade. Cunningham emphasizes the way children from these low-income family environments often attended "work schools" to pay for their education while simultaneously earning a living: "For the poor, perhaps some 20 percent of the population, payment of fees was out of the question; they were often the target population for work schools which aimed to finance themselves out of the industrial labour of the children" (100). He then goes on to explain that many students who did actually attend regular schools would only attend them a few weeks out of the year, and he notes how children rarely attended school for more than three years total (100-01). Unlike in the nineteenth and twentieth centuries, children of the seventeenth and eighteenth centuries sacrificed schooling for

²² For a more detailed discussion of domestic child labor, see Nardinelli, Clark. *Child Labor and the Industrial Revolution*. Bloomington: Indiana UP, 1990. Print.

work-related training within their families. But working conditions were about to change drastically, and forever alter both childhood and child labor.

The Industrial Revolution and the Romantics

The Industrial Revolution²³ marked a significant change in terms of both children and cyborgs. Although these two identities had occasionally converged prior to the end of the eighteenth century, the rapid industrialization at this time of labor and commerce amplified connections between childhood and mechanization. Children were frequently found working outside of their homes and were valued now more than ever for their production capacity. As Romantic authors began to question the modernization of Western society and their own growing feelings of alienation, they turned to childhood for hope; they used the figure of “the Child” in their poetry and prose to symbolize both innocence and a connection to nature and divinity. But this fetishization of childhood was in some ways problematic. Although children were romanticized for their innocence and for their perceived connections to nature, the ironic reality was that most children living during the late eighteenth or nineteenth centuries were experiencing completely different and more mechanized realities.

In his book *Weathering the Storm: Working-Class Families from the Industrial Revolution*, Wally Secombe states: “Over half the English cotton factory labour force in 1816 were under eighteen; in French textile mills in the mid 1840’s, 15 per cent of the labour force were under sixteen” (36). Increasingly, children ceased to work within their households and turned instead to professions involving factory production or large-scale manufacturing. The schedules of children’s daily workday also began to see a drastic change. Cunningham explains how the lifestyles of children became more mechanized: “First, in contrast to agricultural work, and to a lesser extent proto-industrial work, their work had a regular quality extending

²³ For the purposes of this project, the Industrial Revolution suggests the years between 1750 and 1850 AD.

throughout the year; the trade cycle might bring with it periods of slump and lay-off, but in principle work achieved a regularity on a daily, weekly and annual basis far removed from pre-industrial practice” (89). However, younger children under the age of thirteen usually continued to work inside the household, and these kinds of schedules were mostly reserved for older children.²⁴ Adolescents frequently left school at early ages so that they could continue to earn extra income for themselves and for their families. Employment remained a higher priority than education, and education was often difficult (though not impossible) to obtain.²⁵

But what was the actual reality of a typical workday like for most children during the Industrial Revolution? Critical opinion seems to vary widely on this matter. Seccombe highlights the way that children were frequently exploited for their economic capital, arguing that, “In the initial phase of industrialization, many children working in mills, mines and sweatshops did not receive their own wages; these went directly to their parents or guardians” (62). Cunningham refers to activists like Sarah Trimmer and Samuel Taylor Coleridge who fought against what they perceived to be harmful working conditions for children (141-43). All of these scholars argue that children, especially poor children, were sometimes exposed to dangerous working conditions. However, writers such as Clark Nardinelli have cautioned that children were not completely exploited during the Industrial Revolution. Nardinelli argues that children, in fact, actually benefited from industrialization since they gained both more social freedom and also more economic liberty (99-100). Therefore, there is still some critical controversy over the nature of childhood during the Industrial Revolution. What critics do seem

²⁴ For further arguments about age and labor, see again Seccombe, Wally. *Weathering the Storm: Working-Class Families from the Industrial Revolution to the Fertility Decline*. London: Verso, 1995. Print.

²⁵ For a more detailed analysis of education during this time, see Nardinelli, Clark. *Child Labor and the Industrial Revolution*. Bloomington: Indiana UP, 1990. Print. or Seccombe, Wally. *Weathering the Storm: Working-Class Families from the Industrial Revolution to the Fertility Decline*. London: Verso, 1995. Print.

to agree on is that child laborers, whether ethically or unfairly, were rapidly becoming linked with processes of mechanization and industrialization.

In his essay “Cyborg History and the World War II Regime,” Andy Pickering finds a parallel between these labor practices and the disciplinary processes of militarization. Pickering writes, “In this section I follow one particular line in a little more detail, moving from the military to industry, another key site for the coupling of people and machines” (33). The comparisons that Pickering makes between military practices and industrial practices echo the observations of Foucault about industry as a disciplining mechanism in *Discipline and Punish*. Foucault highlights the connections between breaking labor forces into disciplined compartmental segments (like pieces of a machine) and the factory equipment itself when he states that, “In the factories that appeared at the end of the eighteenth century, the principle of individualizing partitioning became more complicated. It was a question of distributing individuals in a space in which one might isolate them and map them; but also of articulating this distribution on a production machinery that had its own requirements” (144). In this view, the workers themselves *were* the machines, trained through a disciplining and mapping of the body.

This move towards an industrialization of the body is also reflected in the numerous accounts of automata, androids, and cyborgs that began to appear more frequently as the nineteenth century progressed. Henri Maillardet, for instance, was a Swiss mechanic who crafted a famous actual android called “The Draughtsman-Writer” sometime around the first decade of the nineteenth century. This figure was a mechanical boy, an automaton which could draw four types of pictures and “write” three different poems. Similarly, Jean Eugene Robert-Houdin, the legendary magician, developed several automata to use in his magic shows in the 1830s. These included a dancer on a tightrope and a writing/drawing figure which he presented

to King Louis Phillippe and sold to P.T. Barnum at the 1844 “Quinquennial Exhibition.”

Finally, a third android was developed by George Moore, an American professor, around the mid-nineteenth century which resembled a walking steam man.

But this proliferation of man-machine inventions in the nineteenth century were less cyborgian and less revolutionary than a more important model of the cyborg, which gained widespread popularity around 1818. Mary Shelley’s novel, *Frankenstein: Or the Modern Prometheus*, was a depiction of a monster which is arguably one of the first predecessors of the cyborg in literature. Frankenstein’s monster, a surgically-constructed man that blurs the distinction between man and monster, science and nature, and, arguably, gender itself, would forever change how society would perceive not only the monstrous but also the role of technology in society.²⁶ Shelley’s novel expressed the extremely prevalent fears in early nineteenth century society related to the mechanization of the body and the industrialization of society. These themes can also be found in other literature from the time, most notably in E.T.A. Hoffman’s infamous 1816 short story “The Sandman” and his construction of the character of Olympia (a mechanical doll or automaton).²⁷

²⁶ For more on Frankenstein’s monster as cyborgian monstrosity, see Haney, William S. “Frankenstein: The Monster’s Constructedness and the Narrativity of Consciousness.” *Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman*. Amsterdam: Rodopi, 2006. Print.; Graham, E. L. “Frankensteins and Cyborgs: Visions of the Global Future in an Age of Technology.” *Studies in Christian Ethics* 16.1 (2003): 29-43. EBSCO. Web. 29 May 2012.; Clayton, Jay. “Concealed Circuits: Frankenstein’s Monster, the Medusa, and the Cyborg.” *Raritan* 15.4. (Spring 1996). EBSCO. Web. 29 May 2012.; Bann, Stephen. *Frankenstein, Creation and Monstrosity*. London: Reaktion, 1994. Print.; or, for more on Frankenstein’s monster as child, see Claridge, Laura P. “Parent-Child Tensions in Frankenstein: The Search for Communion.” *Studies in the Novel* 17.1 (Spring 1985): 14-26. EBSCO. Web. 29 May 2012.; Rubenstein, Marc A. “‘My Accursed Origin’: The Search for the Mother in ‘Frankenstein’” *Studies in Romanticism* 15.2 (Spring 1976): 165-94. JSTOR. Web. 29 May 2012.; or Johnson, Barbara. “My Mother, My Self.” *Diacritics* 12. (Summer 1982): 2-10. JSTOR. Web. 29 May 2012.

²⁷ For further criticism of “The Sandman” and motifs of mechanization or the uncanny, please see Roberts, Ian F. “Olympia’s Daughters: E.T.A. Hoffman and Philip K. Dick.” *Fiction Studies* 37.1 (Mar 2010): 150-53. JSTOR. Web. 29 May 2012.; Fletcher, John. “Freud, Hoffman and the Death-Work.” *Journal of the Theoretical Humanities* 7.2 (Aug 2002): 125-41. JSTOR. Web. 29 May 2012.; and Bresnick, Adam. “Prosopoeitic Compulsion: Reading the Uncanny in Freud and Hoffman.” *Germanic Review* 71.2 (Spr 1996). EBSCO. Web. 29 May 2012.

Therefore, adults of the late eighteenth and nineteenth centuries, as well as children themselves, were becoming more and more cyborgian in nature. Children were utilized for their production value and their bodies were also becoming more mechanized and more closely linked with industrial technology. Seccombe describes how industrial machines were often specifically tailored to accommodate children's bodies: "From the employers' standpoint, children were recruited because they were small, docile and relatively cheap. Many of the early textile machines were specially adapted to children's physiques" (36). In this way, children's bodies and the machines they worked amongst became almost inseparable, and the mechanized child-cyborg began to emerge with more frequency.

The Victorian Era

As the passage of numerous "factory acts" in the nineteenth century shows, the disheartening conditions many children encountered during the Industrial Revolution began to become a more frequent topic of discussion.²⁸ The Romantic era gradually began to evolve into the Victorian movement,²⁹ and more sympathy started to arise for children's circumstances. Victorian society began to sentimentalize the difficulties children had to confront in daily life, rather than to simply worship children for their perceived qualities of innocence or piety as the Romantics had. Although conceptions of innocent children were still important to the Victorians, most adults during the Victorian movement were willing to face the darker aspects of children's everyday realities. This is evidenced by the heightened social activism of the time and

²⁸ For further reading on legislation passed during this time, see Kirby, Peter. *Child Labour in Britain, 1750-1870*. Basingstoke: Palgrave Macmillan, 2003. Print.; Cunningham, Hugh. *Children and Childhood in Western Society Since 1500*. Harlow, England: Pearson Longman, 2005. Print.; or Nardinelli, Clark. *Child Labor and the Industrial Revolution*. Bloomington: Indiana UP, 1990. Print.

²⁹ For the purposes of this project, the Victorian Era will mean approximately the period between 1837 and 1910 AD.

the national legislation intervening on behalf of children during the Victorian period, as well as by the compulsory schooling mandates that developed at the end of the nineteenth century.

In addition, many individuals were more willing to face other aspects of industrialized society and the mechanization of the body during the late nineteenth century as well. The second half of this century is often referred to as the “Golden Age of Automata” due to the proliferation of automata in the toy industries, watch-making industries, and the doll industry. Many inventors, particularly in Paris, began to make their livelihoods from creating such mechanical figures. Noteworthy automata inventors from this time include Vichy, Rouillet & Decamps, Lambert, Theroude, Phalibois, Renou, and Bontemps.³⁰ Likewise, many writers began to experiment with depicting mechanical humans or animated dolls in their texts. Stories from this time featuring uncanny dolls include Mark Lemon’s *The Enchanted Doll: A Fairy Tale for Little People* (1849), Charles Dickens’ *Our Mutual Friend* (1864), and Lucy Lane Clifford’s short story “Wooden Tony” (around 1892).³¹ Edgar Allen Poe published a short story in 1843 about a cyborgian man with extensive prostheses entitled “The Man That Was Used Up.” Likewise, the Tin Woodsmen, the Tin Soldier, and the character Chopfyt in Frank L. Baum’s *Oz* series are all cyborgs whose organic bodies are replaced with metal.³² Baum’s characters may have provided the inspiration for later cyborgs in literature, such as the superhero with an artificial heart named Nyctalope that appears in Jean de La Hire’s 1908 novel *L’Homme Qui Peut Vivre dans l’Eau*.

³⁰ For further reading, see Bailly, Christian, and Sharon Bailly. *Automata, the Golden Age: 1848 - 1914*. London: Wilson, 1987. Print.

³¹ To learn more about Dickens’ use of automata or the use of dolls in Victorian literature, please see Inglis, Katherine. “Becoming Automatous: Automata in *The Old Curiosity Shop* and *Our Mutual Friend*.” *Interdisciplinary Studies in the Long Nineteenth Century* 6 (2008). EBSCO. Web. 29 May 2012. and Gonzalez, Eugenia. “‘I Sometimes Think She is a Spy on All My Actions’: Dolls, Girls, and Disciplinary Surveillance in the Nineteenth-Century Doll Tale.” *Children’s Literature* 39 (2011): 33-57. PROJECT MUSE. Web. 29 May 2012.

³² For further analyses of cyborgian hybridity or robots in Baum’s work, see Pugh, Tison. “There Lived in the Land of Oz Two Queerly Made Men’: Queer Utopianism and Antisocial Eroticism in L. Frank Baum’s *Oz* Series.” *Marvels & Tales* 22.2 (2008): 217-39. EBSCO. Web. 29 May 2012. or Abrahm, Paul M., and Stuart Kenter. “Tik-Tok and the Three Laws of Robotics.” *Science Fiction Studies* 5.1 (Mar 1978): 67-80. JSTOR. Web. 29 May 2012.

The 1879 novel *The Ablest Man in the World* by Edward Page Mitchell features a character named Baron Savitch with a mechanical clockwork brain, and another one of the characters, named Dr. Fisher, becomes so unnerved by this cyborg that he removes Baron's metal brain and throws it into the ocean. All of these works express, though perhaps subconsciously, a deep-rooted anxiety present in Victorian society related to questions about what it means to be human,³³ and perhaps the origin of much of this anxiety in literature and science fiction was the increasing modernization and industrialization of society.

In terms of childhood, many scholars today debate whether anxieties about children at this time were valid or whether the circumstances child workers found themselves in were less harsh than is commonly believed.³⁴ Whatever the conditions they faced, children's daily lives were becoming increasingly urbanized. Young people frequently worked as laborers in textile mills, coalmines, as agricultural servants, or in factory systems. Due to the large number of people relocating to cities or urban environments, street children, orphaned children, and children who made their living as peddlers or as thieves/gang members frequently roamed the streets. Such conditions, though, eventually caught the attention of reformers.

³³ For additional sources discussing the ways literature has historically dealt with anxieties about the posthuman or nonhuman, see Graham, Elaine L. *Representations of the Post/Human: Monsters, Aliens, and Others in Popular Culture*. New Brunswick: Rutgers UP, 2002. Print.; Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: Univ. of Chicago, 2000. Print.; or Csicsery-Ronay, Istvan. "On the Grotesque in Science-Fiction." *Science Fiction Studies* 29.1 (Mar 2002): 71-99. JSTOR. Web. 29 May 2012.

³⁴ For arguments claiming that child labor conditions were less than harsh, see Hopkins, Eric. *Childhood Transformed: Working-Class Children in Nineteenth-Century England*. Manchester, UK: Manchester UP, 1994. Print. or Nardinelli, Clark. *Child Labor and the Industrial Revolution*. Bloomington: Indiana UP, 1990. Print. For arguments claiming that child labor conditions were inappropriate, see Pollard, Sidney. "Factory Discipline in the Industrial Revolution." *The Economic History Review* 16.2 (1963): 254-71. Print. or Pinchbeck, Ivy, and Margaret Hewitt. *Children in English Society*. London: Routledge, 1969. Print.; Or, for arguments straddling both sides, see Stearns, Peter N. "Child Labor in the Industrial Revolution." *The World of Child Labor: An Historical and Regional Survey*. Ed. Hugh D. Hindman. Armonk: M.E. Sharpe, 2009. 38-44. Print. or Seccombe, Wally. *Weathering the Storm: Working-Class Families from the Industrial Revolution to the Fertility Decline*. London: Verso, 1995. Print.

In *Children and Childhood in Western Society Since 1500*, Hugh Cunningham explains that, “From the 1830s there was an intensified phase of institution building, catering for children of all kinds thought to be in need” (148). He also observes that, “Philanthropists opened and ran homes for orphans and other neglected children, they organized schemes of emigration, they set up kindergartens and schools, they founded societies for the prevention of cruelty to children, and they had numerous programmes for visiting the poor” (137). Many historians have questioned the motives of such changes in the middle of the century, arguing that they were instituted in order to ensure that adult workers were not being displaced by child workers. In *Child Labor and the Industrial Revolution*, Clark Nardinelli disagrees. He writes “Although some manufacturers may have had predatory motives when they supported child labor laws, the dominant motive behind the reform nonetheless appears to have been humanitarianism” (137). This certainly seems to be true, since many individuals who first drew attention to the problems faced by children were members of religious, political, or reformist groups.

However, by mid-century, interventionist efforts began to become more legislative in nature. The famous Factory Acts of 1819 and 1833 imposed restrictions on which children could be employed and when they could work. The popularity of legislative measures continued to grow so much that, eventually, the government became a bigger force in the regulation of child labor than private activist groups. By the end of the 1880s child labor was a primary concern nearly everywhere, in America as well as many European countries. Cunningham suggests that there were actually hidden motives behind these concerns: “Child-saving aimed both to provide the child with what was thought of as a childhood, and to ensure the future of society. The two aims were thought to be entirely consonant with one another” (Cunningham 163). One of the most important ways these two aims soon got conflated was through the institution of the school.

Although children had frequently attended schools before the latter decades of the nineteenth century, schooling became compulsory in the 1880s. Children in the early to middle decades of the century went to school because they were encouraged to do so by their communities or families, not because of government mandates. But national governments around the globe soon grew to see education as a way of dealing with children that had been displaced from factory, mining, or textile work, and schooling became an easy way to try to turn impoverished classes into cultured and literate citizens. Schools were made more accessible to people of all classes and became a way that the government could regulate their citizens and children. Of the United States, Cunningham states:

In 1881 fees were abolished in public elementary schools; in 1882 enrolment in a school was made compulsory; in 1883 every village or hamlet with more than twenty children of school age was required to maintain a public elementary school; in 1885 the budget for the building and maintenance of schools and for the pay of teachers was substantially increased; and in 1886 there was put into place an elaborate system of inspection and control....In England and Wales the chronology was very similar. (158)

From the mid-1880s forward, schools would indefinitely become vehicles for disciplining and normalizing citizens and children in most Western nations. Nardinelli states, “As working-class incomes rose, parents kept children out of the labor force until later and later ages. The production of well-educated children became a realistic and desirable alternative for the working-class family in the late nineteenth and twentieth centuries” (Nardinelli 149). Because children were thought to need protection after the Industrial Revolution, because dropping mortality rates allowed for greater emotional connections between family members, and because the institution of the family itself was becoming a means of normalization at this time, more

emphasis on children began to appear in Western society at the end of the nineteenth century. These changes opened the way for the “child-saving” era in the early twentieth century.

The “Century of the Child”³⁵

The “child-saving” era differed from the era of institution building in the late nineteenth century in various ways. In his book entitled *The Children’s Rights Movement: A History of Advocacy and Protection*, author Joseph M. Hawes states:

The previous generation of child workers might well have been called the ‘institution builders.’ Their conception of children derived from the influence of the Enlightenment thinking, which emphasized reason and viewed children as morally neutral and thus capable of moral improvement through institutional incarceration and discipline. The child savers, by contrast, held a romantic view of children as ‘beings from God’ who, if anything, were morally superior to adults and who represented the future of American society. (27)

Dan Beekman seems to agree with Hawes when he states in *The Mechanical Baby: A Popular History of the Theory and Practice of Child Raising* that, “The twentieth century was to be known, in its early years, as the Century of the Child, the title of a German work on social improvement by Ellen Key (in English, 1909). The epithet is not only an expression of the amount of attention focused on children and child study, but also a symbol of the high hopes parents had for reforming the world through their offspring” (113). These scholars highlight how traditional adult-child hierarchies began to shift in the twentieth century.

In fields such as psychology, medicine, and science, childhood became a legitimate subject of study. G. Stanley Hall, a psychologist and also one of the pioneers of the child study movement, was one of the first scholars to present detailed studies of child education and mental

³⁵ For the purposes of this project, the “Century of the Child” will mean the twentieth century.

health. His books launched an era of investigation in relation to childhood and also helped to create a new category of identity: “adolescence.”³⁶ In the medical profession, the study of pediatrics was becoming increasingly popular. The American Pediatric Society was founded in the 1880s and, as Elliot West claims in *Growing Up in Twentieth-Century America*, the infant mortality rate was declining by “a startling 20 percent between 1915-1919 and 1920-1924” (64). In addition, the founding of a juvenile justice system at the start of the twentieth century also brought more attention to children’s legal rights as well as to conceptions of delinquency. Finally, reformers such as John Dewey and Edward L. Thorndike advocated significant changes in educational systems by applying principles of psychology to educational theories. These changes, in part, led to the deeming of this era as the “century of the child.”

In the early twentieth century, conceptions about childhood innocence also began to change slightly, particularly in the field of psychology. Sigmund Freud’s *Three Essays on the Theory of Sexuality* portrayed child development as a series of psychosexual stages, forever altering society’s views about the relationship between childhood and innocence. Freud argued that children were born with instinctual sexual desires, which sharply contradicted Romantic views about the intrinsic nature of childhood innocence. From this time forward,³⁷ conceptions of the “innocent child” were weakened.

Beliefs about childhood innocence were also challenged by children’s experiences during the First World War. As young mothers were forced to enter the workplace while their husbands fought in the Great War, young children experienced changing home environments and more

³⁶ See Hall, G. Stanley. *The Contents of Children’s Minds on Entering School*. New York: E.L. Kellogg & Co., 1893. Print.; Hall, G. Stanley. *Adolescence: Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education*. New York: D. Appleton and Co., 1904. Print.; and Hall, G. Stanley. *Youth: Its Education, Regimen, and Hygiene*. New York: D. Appleton and Co., 1912. Print.

³⁷ For a scholar who discusses the influence of Freud’s essay upon other psychoanalysts who wrote about childhood, see Geissmann-Chambon, Claudine, and Pierre Geissmann. *A History of Child Psychoanalysis*. London: Routledge, 1998. Print.

freedom. Many of these children lost their fathers in the war, and so became members of single-parent homes. Young children also signed up for military participation, often forging their age by claiming they were over eighteen years old in order to enlist. Child soldiers under eighteen years of age could be found in Belgium, France, Russia, and Turkey. Chris Gray, in his article “MAN PLUS: Enhanced Cyborgs and the Construction of the Future Masculine,” comments upon the militarization and technologization of the bodies of soldiers during World War I. Gray writes, “This long standing incestuous relationship between war, men, and machines may well have finally birthed the psychological reality of cyborgs in the hell of 1917” (277-99). There are many images of child soldiers from the World War I era dressed in full uniform brandishing weapons, or of child war victims devastated by poverty or worse yet wounded.

As militaristic or educational institutions continued to impose disciplinary training practices upon child bodies, children’s lives became more and more mechanized and automatous. Beekman writes that:

Little was known about children in a scientific sense, but a good deal was known about production. Production demanded regularity, repetition, and scheduling. All that seemed to be required of the family was that the parents submit to the same kind of systemization and discipline in the handling of their children as was routinely demanded of factory workers on a production line. (113)

Thus the First World War was an important epoch for escalating associations between children and cyborgs, and for conceptions of cyborgs in general. The term “robot” was first coined in 1920 by Karel Capek. Capek created a play entitled *R.U.R. (Rossum’s Universal Robots)* which depicted robots created by humans that revolt against their creators in a quest for freedom. Images of Dadaist art in the first and second decades of the twentieth century also demonstrate

an intensification of depictions of mechanical bodies. Weimar Republic artists such as Raoul Hausmann and Albert Pfeifer increasingly showcased images of militarized cyborgs in their work, and feminist Dada artists such as Hannah Hoch often conflated depictions of mechanized reproduction, women, and young girls. In short, the Dadaists helped to popularize and foreground conceptions of the cyborg for the first time in a large-scale way. Finally, some of the literature from the late 1920s and early 1930s contain references to cyborgian figures. Edward Hamilton's cyborgian space explorers in the 1928 story *The Comet Doom* are an important example. Similarly, H.P. Lovecraft's story "The Whisperer in the Darkness" (published in 1931 as part of the Cthulhu Mythos) describes the Mi-go aliens and how they turn human brains into cyborgs via devices known as "brain cylinders." Finally, the "Professor Jameson" stories of Neil Ronald Jones surfaced in 1931 and continued until 1951.

The mechanization of the body in art and literature of this period also continued to affect children during the 1930s and 40s as the Great Depression set in and as WWII erupted. The Great Depression significantly affected the lifestyles and finances of many American families, and children faced difficult circumstances as they were forced to enter the workplace to help support their families. Many children's lives were destabilized as they became members of single-parent homes or became homeless altogether. This trend also continued throughout Europe during and after WWII. In his book entitled *War Child: Children Caught in Conflict*, author Martin Parsons states, "At the end of the Second World War, an estimated 13 million European children were facing severe poverty, malnutrition, and destitution. Children were homeless and stateless. Some were kidnapped or deported, identities were changed" (12). Children that were suffering from poverty and poor working conditions were similarly more susceptible to groups such as the Hitler Youth (HJ), the BDM (The League of German Girls),

and other Nazi-affiliated youth paramilitary organizations; the bodies of German children encountered a new form of disciplinary training during the Hitler regime as German children joined these groups and as Jewish children (as well as children from other non-Aryan groups) suffered from the consequences. The mass transit of many Jews to ghettos, labor camps, or concentration camps also reflects a mechanization of child bodies during WWII as well.

Conceptions of the cyborg underwent many important changes during or shortly after World War II, and this was due in large part to a growing relationship between military-industrial practices and technological innovation. In his article “Cyborg History and the World War II Regime,” Andy Pickering claims, “In several respects, the computer emerged within, and as part of, the cyborg projects of World War II” (22). This certainly seems viable, since some of the first electronic autonomous robots (Elmer and Elsie) were created in 1948 by roboticist William Grey Walter. Similarly, numerous other references to cyborgs can be found in the 1940s. C.L. Moore’s short story “No Woman Born” (1944) features a dancer named Deirdre whose brain is placed in a faceless mechanical body after she is badly burned. The famous “Captain Future,” the hero of the self-titled pulp magazine series of the 40s and 50s was a cyborg. And, in the 1949 movie *The Perfect Woman*, a life-size female android is created which a human woman then later impersonates. All of these various references to mechanized bodies depict the widespread changes occurring after the end of World War II.

Many changes also occurred after WWII’s end in terms of childhood. As birth rates soared during the post-war boom, adults began to place even greater emphasis upon children and their roles as future citizens. Young people increasingly began to turn from laborers into consumers. This new emphasis on children as consumers was aided in large part by the publication of Dr. Benjamin Spock’s book *The Common Sense Book of Baby and Child Care* in

1946 and in part due to the increasing appearance of television sets in middle-class family homes. Unlike early psychological theorists associated with the child-study movement, Spock argued that parents should trust their own instincts as they reared their children, and these theories soon resulted in less regimentation and less restriction for children. Young people were seen as having not only the right to basic protection through legal and state systems, but also as having more rights to self-determination and personal agency. At the same time, children were also encouraged less and less to find work outside the home, while the invention of televisions cemented their switch from producers to consumers (since children were soon targeted by advertisers and programmers). In *Growing Up in Twentieth-Century America*, Elliott West notes that, “After World War II, television rapidly became an essential and unavoidable part of American life. In 1946, about 6,000 sets were manufactured. Seven years later annual production had grown to 7 million sets” and that “By 1960, nine out of ten six-year-old girls and boys were watching ‘the tube’ every day” (183-84). The popularization of the television set and society’s growing dependence upon it for information and entertainment meant that children, as well as their parents, were becoming more and more cyborgian. And, as individuals began to become more cyborgian, representations of cyborgs also surfaced more often in popular culture.

The mechanization of society and the emergence of new technologies and electronic medias continued to grow in the Cold War and post-Cold War eras, and an explosion of references to cyborgs and mechanized figures began to appear in literary and popular texts. Since it would be nearly impossible to mention every example of references to cyborgs in popular culture from this point forward, let alone the numerous examples of automata, androids, and robots in Western texts, the subsequent analysis must focus only on a few of the most important cyborgian references to surface between the Cold War and the twenty-first century.

The story “Scanners Live in Vain” published in 1950 by Cordwainer Smith demonstrates several examples of cyborgian figures, including “the Haberman” and “the Scanners.” Similarly, Edmond Wilson’s 1962 short story entitled “After a Judgment Day” explicitly uses the term “cyborg” to describe his group of characters called “Charlies.” A movie made in 1957 entitled *The Invisible Boy* also continued the trend of linking children to robots, as did the 1958 film *The Colossus of New York*. More importantly, the 1950s saw the birth of what some have debatably labeled the first actual cyborg, a white lab rat which was part of an experimental program at the New York Rockland State Hospital, and which was famously mentioned in the 1960 article “Cyborgs and Space.”³⁸ Other medical cyborgs appeared around this time, with an eighteen year old girl receiving a heart-lung machine to control blood circulation in a 1953 operation and an adult man receiving the first heart pacemaker in 1958. Military adoption of cyborg technologies would continue into the 60s with the U.S. Air Force experimenting with things like exoskeletons and biofeedback devices.³⁹

In the 1960s, television shows such as “A for Andromeda” (1961)⁴⁰ and movies such as the James Bond film *Dr. No* (1962) also arguably depicted cyborgian characters, and the 1970s saw little decline in terms of cyborg references. The 1972 novel *Cyborg* by Martin Caidin⁴¹ later inspired the hit television show *The Six Million Dollar Man* in 1974.⁴² The 1970s would see

³⁸ For elaboration, see Clynes, Manfred and Nathan S. Kline “Cyborgs and Space.” *The Cyborg Handbook*. Ed. Chris Hables Gray. New York: Routledge, 1995. 29-34. Print.

³⁹ See Kunzru, Hari. “You Are Cyborg.” *Wired.com*. Conde Nast Digital, 1993. Web. 29 May 2012.
http://www.wired.com/wired/archive/5.02/ffharaway_pr.html

⁴⁰ A run of other television series similar to “A for Andromeda” emerged at this time as well, with shows such as *Star Trek: The Original Series* (1966-69), *Wild Wild West* (1965-69), and *Doctor Who* (1963-89) all featuring cyborgs at various periods.

⁴¹ Other literature from the 1970s referencing cyborgs include Isaac Asimov’s short story “The Bicentennial Man” (1976) (which tells the tale of a robot who modifies himself with organic components) and Frederik Pohl’s novel *Man Plus* (1976) (which features a cyborg character named Roger Torraway who is part of a government program that aims to transport people to Mars after ambiguous cold war tensions escalate on Earth).

⁴² *The Bionic Woman* is also another example of a television series that ran from 1976-1978 and depicted a female cyborg equivalent to her male counterpart in *The Six Million Dollar Man*.

depictions of cyborgs in everything from comic books (Marvel's "Deathlok the Demolisher" in the 1973 *Astonishing Tales*) to films (for instance, the movie alternately known as *Roboman* or *Who?* which was released in 1973 in the U.K. and in 1975 in the United States).⁴³ The latter is interesting to consider, particularly, because it showcases the hostility present during Western and Eastern nations during this period. It is possible that the increase in depictions of the cyborg had a great deal to do with Cold War tensions of the time.

The zenith of the cyborg, though, occurred in the 1980s and 1990s. Films such as *Blade Runner* (1982)⁴⁴ and science fiction novels such as *The Book of New Sun* series by Gene Wolfe (1980-83)⁴⁵ featured memorable cyborg characters. But, more interestingly, several children's television shows from this period also featured cyborgs, including the comic-turned-television-series *The Teenage Mutant Ninja Turtles* (1987-96), the hit show *Inspector Gadget* (1983-86), and the less popular television series *Bionic Six* (1987-89). This latter series is particularly interesting to note since it contains several examples of child-cyborg characters (characters Eric, Meg, J.D., and Bunjiro). Additionally, movies such as *D.A.R.Y.L.* (1985), and television series such as *Small Wonder* (1985) contained references to either cyborgs or childlike robots, as did comic series such as *Teen Titans* (Victor Stone/Cyborg appeared in the series in 1980).

The 1990s too, rival the 1980s in terms of interest in the cyborg. Many advancements were made during these decades in terms of medical practices and cyborgian technologies. For instance, artificial hip joints, cochlear implants, retinal implants, and cosmetic surgeries were all fairly refined practices by the end of the 1990s. Additionally, everything from literature to

⁴³ For other 1970s films with cyborg characters, see *Star Trek: The Motion Picture* (1979) and *Star Wars* (1977).

⁴⁴ For additional 1980s films featuring cyborgs, please consider the movies *RoboCop* (1987), *Innerspace* (1987), *Star Trek: The Next Generation* (1987), *Moontrap* (1989), and the 1989 film *Cyborg* (which was followed by its 1993 and 1995 sequels *Cyborg 2* and *Cyborg 3: The Recycler*).

⁴⁵ For more science fiction with cyborgs from this era, please see the *Sprawl* trilogy by William Gibson (1984-88), and the 1982 novel *Oath of Fealty* by Larry Niven and Jerry Pournelle.

videogames to television and film showcased cyborg characters. The trend of depicting cyborgs in science fiction continued with series such as *The Company* (1997-2010) by Kage Baker.⁴⁶ Baker's series featured a few child-cyborg characters (children who are turned into immortal cyborg machines that retrieve valuable artifacts from the past). Videogames also reflected an increased interest in cyborgs with games such as *Mortal Kombat* (1992) and *Metal Gear Solid* (1998) achieving widespread commercial success.⁴⁷ A run of films were also produced that centered on anxieties about cyborgs or featured cyborg characters, including early 90s films such *Cybernator* (1991)⁴⁸ and late 90s films such as the 1996 movie *Star Trek: First Contact*.⁴⁹ Children's films, such as *Star Kid* (1997), also featured child-cyborgs. Interestingly enough, television seemed to be the medium where the most child-cyborg characters appeared. The series *Mighty Morphin Power Rangers* became widely popular with young child audiences in 1993, and an animated series named *Gadget Boy and Heather* (1995-98) also featured a child-detective with extendable limbs and bionic capabilities.⁵⁰

More recently, there have been several films in the twenty-first century which feature cyborgian figures, including the 2001 documentary *Cyberman*.⁵¹ The figure of the cyborg does seem to appear in the media slightly less frequently today than it did in the 1980s and 1990s, but this does not mean that society has lost interest in the figure of the child-cyborg. Indeed, Martin Scorsese's Oscar-winning movie *Hugo*, which was released in 2011 and nominated for an

⁴⁶ Other 1990s science fiction works include the series *The Gap Cycle* (1991-1996) and the *Saga of the Skolian Empire* (1994-present), as well as the 1993 novel *Legion of the Damned* (1993).

⁴⁷ Other '90s videogames with cyborgs include *Sonic the Hedgehog* (1991) and *System Shock* (1994).

⁴⁸ For more early 1990s films, see *If Looks Could Kill* (1991), *Knights* (1993), *Cyborg Cop* (first released in 1993 shortly before its sequel *Cyborg Soldier* was also released in 1994), *Virtuosity* (1995) and the 1995 and 1996 movies *Nemesis 2* and *Nemesis 3*.

⁴⁹ For other late '90s films, see 1998's *Inspector Gadget*, 1999's *The Matrix* (as well as its subsequent sequels), and 1999's *The Wild Wild West*.

⁵⁰ An additional television show featuring a child-cyborg character from this time is *Star Trek: The Next Generation* (the character Lal in the 1990 episode "The Offspring").

⁵¹ Twenty-first century films with cyborgs include the 2004 movie *I, Robot*, the 2008 film *Cyborg Soldier*, the 2008 film *Repo! The Genetic Opera* and the 2012 film *Men in Black III*.

Academy Award in 2012, features a child star who at one point dreams he becomes a cyborg. There are still frequent references to teen cyborg or teen robot characters on television, as high-school student Cameron Phillips from the FOX series *Terminator: The Sarah Connor Chronicles* (2008-09) and Jenny Wakeman from the Nickelodeon series *My Life as a Teenage Robot* (2003-07) prove. In addition, twenty-first century videogames and comics also continue to utilize the figure of the child-cyborg.⁵²

Finally, adults and children alike continue to purchase new technologies which allow them more and more interaction with information, such as mobile “apps,” e-book readers, and devices like laptops and iPad computers. Children, particularly, have more frequent access to things such as mobile phones, social networking devices, and *Wii* consoles, and the recent trend of re-releasing children’s movies with new and improved 3-D technology certainly points to the power children now have as cyborgian consumers. With the development of new technologies that have often been specifically marketed towards children, ideas about child consumption are frequently linked to stereotypes about the relationships between young people and technology.

Children today are more cyborgian than ever, and this has some extremely positive benefits. Children and teens are able to access more immediate forms of information. They can accomplish things more quickly, communicate with others more effortlessly, and are more adaptable since they have grown up in a rapidly changing world. In today’s increasingly globalized society, children are able to access new material goods and new kinds of information in a way that children of the past could not. However, as children become more powerful as consumers, more familiar with new technologies, and more comfortable with the informational

⁵² For more twenty-first century videogames and comics with cyborgs, see *Halo* (2001), *BioShock* (2007), the comic series *Teen Titans* (featuring Cyborgirl otherwise known as the character LeTonya Charles, first introduced in 2002), *X-Men* (the character of X-23 who was first introduced in 2003), or *The Young Avengers* (the character of Iron Lad who appeared in 2005).

systems that surround them, discourses about the dangers of such access and consumption continue to surface. It is possible that such anxiety stems from fears that traditional adult/child power hierarchies might be overturned as children acquire more power. It is also possible that adults might be using discourses of childhood to analyze their own fears and anxieties about the changing modern world. To better understand the historical relationships between discourses of children, access, technology, and information, a few literary analyses of eighteenth, nineteenth, and twentieth century texts may help trace developments in understandings of childhood or in understandings of the relationships between children and cyborgs.

CHAPTER 2

Into the Wilds of Childhood: Romanticism and the Animal-Child Cyborg in William Blake

Childhood is not a natural state of innocence; it is a historical construction. It is also a cultural and political category that has very practical consequences for how adults “think about children”; and it has consequences for how children view themselves.

-- Henry A. Giroux, *Stealing Innocence: Youth, Corporate Power and the Politics of Culture*

Representations of child-cyborgs in Western texts initially appear not in stories about robots, or androids, or even amongst historical studies of child soldiers or child laborers. They begin, rather, in Romantic texts. Historian Philippe Ariès has infamously claimed that, “in medieval society, childhood as an idea did not exist” (125). Neil Postman, in his book *The Disappearance of Childhood*, has also agreed that childhood was not recognized in the medieval period. Postman claims it was only with the invention of the printing press that a “knowledge gap” between children and adults developed and childhood emerged (28). Both Ariès and Postman believe childhood developed between the fifteenth and seventeenth century. Therefore, although descriptions of biological children can be found in pre-seventeenth century literature, representations of childhood as it is understood today cannot. Childhood as an ideological concept first began to flourish with the dawn of the Romantic age. From this time forward it became linked in important ways to discourses of industrialization, access, information, and modernization. Indeed, Romantic constructions of the “innocent” child arguably arose out of a backlash against modernization; as Romantic authors struggled to cope with the modern world, they grew nostalgic for the past and idealized childhood as a time of innocence and connection to Nature. Linda M. Austin has argued in her article “Children of Childhood: Nostalgia and the Romantic Legacy,” that, “‘Childhood’ may have emerged as an issue of industrialization...” (79). Therefore, it is important to analyze Romantic texts for representations of child-cyborgs.

The period from the seventeenth century to the eighteenth century is also important to consider since it was a time during which children were leaving the shelter of their homes in order to emigrate to urban environments and to obtain employment outside their family units. This was the first time historically that children were gaining widespread access to information, to other people, and to the outside modern world. It becomes interesting to consider, then, whether the separation of childhood from adulthood as an identity category might have arisen out of adult fears about children's access to this increasingly modernized and industrialized world. As children faced harsh realities in working environments or on city streets, many adults feared for children's safety. Similarly, they may have also feared the new agency and power that children were developing. Romantic depictions of children in literary texts coped with these anxieties by lifting children out of industrial settings and returning them to Nature. Childhood began to be seen as a time of innocence, creativity, and connection with the natural world. In this way, childhood was depicted as a liminal state of existence, set in juxtaposition to normative adult experience. In literary works, children were frequently associated with other liminal identities, such as spiritual entities or animals. Representations of the child-cyborg properly defined thus appear in textual culture with the growing deterioration of the boundaries between children and animals in eighteenth century Romantic literature.

Just as posthumanist theorists often analyze the figure of the cyborg in terms of the animal/human dichotomy as well as the organism/machine dichotomy, a discussion of the child-cyborg must take into consideration not only textual accounts of mechanized child bodies but also connections between human children and nonhuman animals in various historical discourses. Many foundational posthumanist theorists have stressed the importance of interrogating animal/human dichotomies in Western thought. Donna Haraway, the posthumanist

theorist widely understood to be the mother of cyborg discourse, states in her essay “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century” that: “The cyborg appears in myth precisely where the boundary between human and animal is transgressed” (293). Haraway then explains that anything which involves a merging of the inorganic and the organic, or the nonhuman and the human, can be considered a cyborg. Many other posthumanist scholars have echoed these arguments, claiming that the animal-human or the animal-machine can be considered cyborgian. In her article “Speaking Cyborg: Technoculture and Technonature,” Anne Kull states, “Cyborgs appear where boundaries are transgressed: between human and animal, organism and machine, physical and nonphysical” (282). Similarly, Jennifer Parker-Starbuck, in “Becoming-Animate: On the Performed Limits of ‘Human,’” describes the way that discussions of the animal are often left out of posthumanist scholarship: “While this proliferation of all-things-cyborg post-Haraway has focused on the integration between humans and machines, it has often overlooked Haraway’s arguments for political affiliations and feminist strategies, and the animal possibilities of the cyborg have been largely ignored” (655). All of these scholars argue that animals are an important aspect of cyborg studies and that blurring the boundaries between the human and the animal can be liberating

For instance, a great deal of ecofeminist discourse centers upon discussions of what humans as well as animals can gain from disrupting the traditional boundaries between the animal and the human. Scholars like Lynda Birke have questioned many other feminists who reject associations between women and animals. In her essay “Exploring the Boundaries: Feminism, Animals, and Science,” Birke states: “For feminism, I suggest, what can be learned is to question not only boundaries of difference within humans (or between women), but also to question the boundaries of what constitutes humanness. What is it that we are afraid of when we

flee from any suggestion of our own connections with other kinds of animals?” (49). Birke recognizes that many traditional feminists have feared associating women too closely with animals, due to the already prevalent tendency in Western society to dehumanize women, but she reminds readers that feminists and animals both have something to gain from moving beyond humanist-centered thought. More recently, critics such as Ronnie Zoe Hawkins have echoed Birke’s claims, arguing that treatment of animals, as well as of women, is all part of the same system of patriarchal domination. In her essay “Ecofeminism and Nonhumans: Continuity, Difference, Dualism, and Domination,” Hawkins writes that: “Aristotle's hierarchical ordering in the *Politics*, naming not only animals but women and slaves as ‘by nature’ inferior and so rightly subject to rule by men, served as one of the first attempts to justify domination by an untenable appeal to biology and should be vigorously opposed” (187). Therefore, Hawkins implies that feminist movements and animal activists should work together more frequently.

Likewise, scholars in the field of critical animal studies have recently begun to discuss posthumanist theories in terms of the way current cultural studies centering upon humanistic practice may need revised so as to encourage more empathy for the nonhuman animal. Cary Wolfe, in his book *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory*, claims that a humanist-centered academy leaves a lot to be desired for both humanity and animals. Wolfe writes: “...the theoretical and ethical issues that attend the question of the animal are only part of the larger issue of nonhuman modes of being and are therefore inseparable (for this reason and for others that I will take up in a moment) from the broader challenge of posthumanist theory...” (193). Following Wolfe’s lead, more recent critics of humanist-centered academic practices within the field of animal rights have begun to seriously debate the relationship between posthumanism, critical animal studies, and animal activism. In

her introduction to a collection of essays about the relationship between posthumanism and critical animal studies, entitled *Animal Subjects: An Ethical Reader in a Posthuman World*, editor Jodey Castricano comments upon the ineffectiveness of humanist ideologies for the future of cultural studies. She writes:

In this context, one imperative of posthumanist theory and this current collection is to explore the role of *empathy* and *compassion* in the production of knowledge concerning the presence of animals in the moral domain in which ‘objectivity’ and charges of anthropomorphism have traditionally been the roadblock towards progress in discussions of how humans might consider the treatment of nonhuman animals. (Castricano 10)

Castricano demonstrates that posthumanist theory has a lot to offer not only scholars of cultural studies but advocates of animal ethics as well.

In these ways, then, posthumanist theory argues that blurring the boundaries between the animal and the human can be potentially liberating, since scholars in the fields of both ecofeminism and critical animal studies have begun to advocate using posthumanist theory in their respective disciplines. Likewise, the field of childhood studies could benefit greatly from a closer examination of posthumanist discourse and what it means for children.

A brief review of Donna Haraway’s model of posthumanist theory might illuminate how. In Haraway’s model, the cyborg can function as a vehicle for escape, inclusiveness, and liberation. Bridging the boundaries between the animal and the human, she argues, can offer opportunities for both humans and nonhumans. The cyborg can function as a means for political resistance, or it can operate as a mechanism for many kinds of unification. Haraway writes:

Language, tool use, social behavior, mental events, nothing really convincingly settles the separation of human and animal. And many people no longer feel the need for such a

separation; indeed, many branches of feminist culture affirm the pleasure of connection of human and other living creatures. Movements for animal rights are not irrational denials of human uniqueness; they are a clear-sighted recognition of connection across the discredited breach of nature and culture. (293)

Therefore, not only does posthumanism allow for an integration of nature and culture, it can also be an agent of unification between feminism and science or the human and the nonhuman. Likewise, linking children to cyborgs could be beneficial if done correctly. Encouraging integration between children and technology, children and information, and children and animals can be important and politically progressive since children are often more adaptable than adults.

Of course, as Haraway would readily admit, the cyborg can also function as an instrument of oppression if used incorrectly. Acknowledging that cyborgs are born out of a culture that is patriarchal and militaristic, Haraway cautions her readers about the cyborg's dangers. She states: "The main trouble with cyborgs, of course, is that they are the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins" (Haraway 293).

Therefore, the cyborg can either function in a restrictive or liberating way, depending on whether it is used to reinforce conventional norms or whether it is used to challenge hegemonic normativity. Haraway advises that the figure of the cyborg should be used cautiously and constructively, claiming that: "This chapter is an argument for *pleasure* in the confusion of boundaries and for *responsibility* in their construction" (292). Unfortunately, the cyborg often gets wrongly appropriated in ways that reinforce normative discourses and that subvert arguments advocating inclusion, particularly in discourses about childhood.

The animal-cyborg, especially, has often been misappropriated in various ways. Women, minorities, and the elderly have sometimes been linked to animals in historical discourses in a way that dehumanizes and marginalizes them as individuals. But children, particularly, are often depicted as nonhuman “others.” In this way, then, the figure of the animal-cyborg can become an instrument of political regression rather than an agent of political evolution, and adults should be cautious of dehumanizing children by associating them with animality in some situations.

During the eighteenth century, many children were linked to figures of animals in literary texts as part of the growing pastoralist movement (a movement which celebrated a mythos of natural innocence, original unity, and rustic divinity). While the pastoral movement as a whole was not necessarily harmful to children, texts from this movement contain many examples of authors who linked children to animals in a way that is arguably dehumanizing. Since children as well as animals become idealized in pastoral mythology, they also become further removed from what is considered normal human experience. Constructing an ideology, then, in which children, animals, and nature are all part of an idealized state of liminal symbiosis far removed from adult human experience can be harmful if it pushes children outside the bounds of relatable routine existence. The bodies of children frequently become linked to the bodies of animals in confusing and concerning ways in Romantic literature, with many children ultimately being marginalized as nonhuman “others.” This conflation of human children with nonhuman animals in Romantic literature sometimes creates regressive depictions of animal-child cyborgs.

One of the first literary texts to consistently present the figure of the child-cyborg in a sustained body of work was a collected volume of engravings and poetry entitled *Songs of Innocence*. The volume was first published in 1789 by Romantic poet William Blake. This collection was later reprinted in 1794, along many with additional poems and images, in a new

volume entitled *Songs of Innocence and of Experience: Shewing the Two Contrary States of the Human Soul*. In this second collection, Blake presented what he felt to be the two fluctuating states of existence that constitute human experience.

Songs of Innocence depicts meditations upon a state of “innocence” which is arguably a way of life, one which has little to do with age or naivety. A great number of literary scholars have commented upon the role that “vision” plays in Blake’s conceptions of innocence, arguing that even adults who have suffered the trials and tribulations of the earthly world are able to maintain a sense of innocence. For instance, Henry Summerfield, in his book entitled *A Guide to the Books of William Blake for Innocent and Experienced Readers*, claims that: “While Blake’s concept of Innocence has its seed in the infant mind, it has come to signify an intense consciousness of heavenly good and a dim consciousness of the earthly evil that this good thwarts. Such a consciousness enables one to survive for a time oppression and hardship...with faith in God, nature and humankind untainted” (57). According to this reading, Blake’s concept of innocence has little to do with naivety, since a person can be aware of hardship or oppression and still remain innocent. Indeed, as Summerfield implies, the most ideal type of innocence in Blake’s work is a type of “informed” innocence. Summerfield writes: “By passing through Experience – a full awareness of suffering, especially suffering inflicted by humans – one can reach the mature Innocence that fully recognizes pain and injustice but sees, transcending them, God’s provision for turning evil ultimately to good” (57). In this interpretation of Blake’s notion of innocence, innocence can be a mature innocence that it is sustainable through transcendent vision. Likewise, critic Martin Price argues in his essay “The Vision of Innocence” that: “The *Songs of Innocence* cultivate a tone of naivety, but we must recognize that what is spontaneously discovered by the child has in fact been earned by the poet’s visionary powers. It is not easy to

achieve Innocence, and one does not reach it by a simple process of subtraction” (99). Price implies, then, that the way to maintain innocence is through vision itself.

In contrast, *Songs of Experience* depicts a state of existence that occurs after a person begins to have *awareness* of the cruelties of the world. The state of Experience, for Blake, has little to do with age. As Samuel Foster Damon indicates in *A Blake Dictionary: The Ideas and Symbols of William Blake*, experience is “...a man’s state when disaster has destroyed the initial bliss” (197). The author compares this awareness to Adam’s fall from God in the Bible, claiming that, “The Fall made Adam aware for the first time of death” (Damon 197). From this perspective, experience has less to do with adulthood and more to do with maturity. It is not, according to Blake, a permanent state but rather a position that one can temporarily escape from through the use of Imagination or Vision.

Blake’s contrary states of Innocence and Experience, then, are each accessible to children and have little to do with naivety or pessimism. Childhood is an ideal state for Blake, not because it is a time of ignorance or moral purity, but because it is a position that allows a person to access Imagination and Vision more readily. In Blake’s model, childhood is a time of connection with Nature, and a time of unification with visionary insight and divinity. For Blake, mankind’s original (and most ideal) state consists of a blissful unawareness of the horrors of the human world and of a synthesis with the rhythms of the natural world. In light of this, it becomes easy to see why Blake might pastoralize and idealize both animals and children.

Innocence

Songs of Innocence is one of the first Romantic texts to develop the image of the child-animal cyborg in a sustained body of work, and it presents both animals and children as liminal figures that blur traditional boundaries between the human and the nonhuman as they merge

together. Frequently, Blake presents child characters or animal characters that possess similar traits, and in this way the author serves to create confusion between animal imagery and images of children. Often, the author even uses sustained metaphors to compare children to animals or to nature, thus pushing children further outside the bounds of normative adult human experience. Rather than simply using animalistic metaphors to describe children, in poems such as “The Lamb” Blake purposefully creates confusion between animals and children until one identity is no longer inseparable from the other and the animal-child cyborg emerges. Children in these poems are not only able to access animalistic qualities (such as intuition, meekness, etc.), they are also able to access divine wisdom and spirituality. Therefore, “the Child,” the animal, and the divine all become intertwined in a cyborgian feedback loop and children suddenly have access to wisdom, knowledge, and information that adults do not have. While establishing connections between children and animals is not in itself regressive, since posthumanist theorists have proven there are many benefits to eliminating human/animal hierarchies, animalizing children can be regressive when such characterizations push representations of childhood even further outside the realm of adult human experience.

For instance, children are depicted as liminal figures in one of the best known poems within *Songs of Innocence*, “The Lamb.” In this poem, children are portrayed as liminal beings that are similar not only to sheep, but also to divinity and therefore the supernatural. The poem begins by constructing a metaphor in which children are compared to “lambs,” and the religious overtones of such a comparison are impossible to ignore. Lambs have traditionally represented both the followers of Christ and the Christ-child himself, in Biblical texts as well as in traditional poetry. When the speaker of the poem states: “Little Lamb, who made thee? / Dost thou know who made thee?” (Blake 1-2), he is using the image of the lamb to represent the connection

between literal lambs, young children, and the followers of Christ who try to model Christ's qualities of meekness and moral purity. As Hal Saunders White states:

It is obvious that Blake in this poem is not concerned with a naturalistic animal. His content or subject matter is the abstract, universal quality of tenderness, meekness, mildness which exists now and did exist before lambs were created. The lamb – Christ – the child – Blake himself in this mood of innocence – equally reflect the essential quality of infinite tenderness. The lamb, Blake, the child, Christ are but images held to the light to catch the rays of this universal quality. (37)

Indeed, this abstract quality which White perceives is further highlighted in the next stanza of the poem. The qualities of meekness and mildness within these lines become so abstracted that divisions between the child, the lamb, and Christ become even more indistinct. The speaker of the poem tells the lamb: “He is meek and he is mild; / He became a little child. / I a child and thou a lamb / We are called by his name” (Blake 13-16). These last few lines of the poem serve to cement the sense of unity that the poem encourages, and this unity is further emphasized by the engraved illustration at the bottom of the page. In this picture, a naked child stands amidst a flock of lambs with his left arm extended towards the mouth of the nearest sheep. The vector of the arm, in conjunction with the way the lamb's nose and mouth extend towards the child, serve to underscore the sense of unity within the poem between children, lambs, moral purity, and Christ. In this way, “the Child” becomes linked with both lambs and divine innocence, and also becomes a child-animal cyborg that blurs the boundaries between the human and the nonhuman. Such

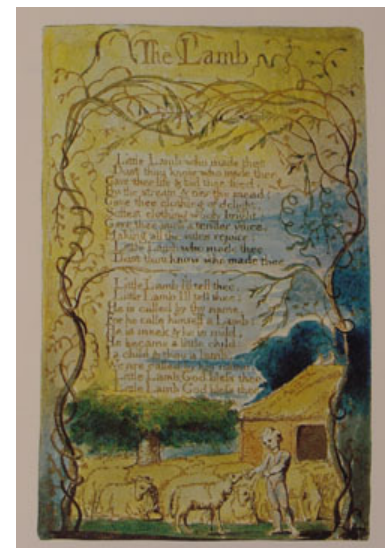


Figure 3: Blake's "The Lamb"

representations of child-animal cyborgs are arguably regressive, due to the way they align childhood with naïve innocence and associate adulthood with experience. Similar motifs appear in the “The Tyger,” a poem which was later published in *Songs of Experience* and which is complementary to “The Lamb.” In this poem, experience is represented symbolically through the figure of the tyger, an animal that is admired for its fierceness but that is also feared for its threatening nature. The narrator explains that something has twisted the “sinews” (Blake 10) of the tyger’s heart and that the tyger, with its “deadly terrors” (16) has been forged in a furnace with an anvil that has a “dread grasp” (15). So here, again, is a regressive model of an animal-human cyborg, since the tyger represents adults, experience, and the cruelties of Nature; the tyger and its experiences are things to be wary of. When Blake questions who “made” the tyger (20), he also questions whether the creature was made by God or whether it came from forces outside the realm of the divine. The tyger (or the adult) stands in contrast to the lamb (or the child) which represents purity.

The theme of linking children to lambs and to Christ appears repeatedly throughout Blake’s *Songs of Innocence*, most notably in poems such as “Holy Thursday,” “Spring,” and “The Chimney Sweeper.” In “Holy Thursday,” the speaker states: “O what a multitude they seem’d these flowers of London town / Seated in companies they sit with radiance all their own / The hum of multitudes was there but multitudes of lambs / Thousands of little boys & girls raising their innocent hands” (Blake 5-8). In these lines, children are compared not only to lambs but also to flowers, which serves to further link them with nature and natural purity. They are also linked once again to Christian piety. We are told that the children were marched by their superiors into the “high dome of Paul” (Blake 4), which we can interpret as St. Paul’s Cathedral in London. And, in addition, they are referred to once again as “lambs” (Blake 7). Likewise,

children are also associated with lambs in the print for the poem “Spring.” At the top of the first page of this poem, a young child sits upon its mother’s lap, reaching out with its arms towards a flock of nearby sheep. On the second page, the speaker of the poem compares a little girl to a rooster when he states: “Little Girl / Sweet and small. / Cock does crow / So do you” (Blake 12-15). The speaker then continues to link the girl to lambs when he replaces the words “Little girl” with “Little Lamb” (Blake 19) in the last stanza of the poem. The piece closes with a printed image of another naked child lounging on the grass in between a second flock of sheep. These printed images, along with the aforementioned lines of text, serve to present the children



Figure 4: Blake's "Spring"

in the poem as liminal cyborgian figures that are partly human and partly animalistic in nature. However, in the poem “The Chimney Sweeper,” the association between children and lambs is more subtle. This poem is a description of children who are forced to work as chimney sweepers in order to survive, and it is a good example of a text that presents the child body as an animal-cyborg. Towards the beginning of the poem, the narrator states: “Theres little Tom Dacre, who cried when his head / That curl’d like a lambs back, was shav’d, so I said, / Hush Tom never mind it, for when you head’s bare, / You know that the soot cannot spoil your white hair” (Blake 5-8). This simile, which associates Tom’s hair with a “lamb’s back,” serves to further cement the connection between animals and children in the poem and is another example of how Blake uses the symbol of the lamb to link children to concepts of piety and innocence. In this way, “The Chimney Sweeper” reiterates many of the same themes that “The Lamb” did at the beginning of *Songs of Innocence*. As Zachary Leader points out in *Reading Blake’s Songs*,

“Tom has but newly entered his apprenticeship and cries for the loss of his curly white hair (an echo of ‘softest clothing wooly bright’ in ‘The Lamb’)” (45). Leader is right to note that, “The Chimney Sweeper” is a description of loss, since much of the poem deals with the morbid nature of the boys’ experiences as chimney sweepers and the way that innocence can be maintained even in the face of disillusionment.

In other poems about childhood in *Songs of Innocence*, the figure of the child is associated with bird imagery instead of lamb imagery. Children are frequently compared to doves, thrushes, and wrens in poems like “A Cradle Song,” “The Echoing Green,” and “Laughing Song.” In Blake’s model of religion, the smallest creatures are the closest things to God because of their vulnerability, innocence, and Christ-like meekness. Therefore, it comes as no surprise that in the poem “A Cradle Song,” the boundaries between representations of children and representations of birds become interchangeable and almost indistinguishable. For instance, the children who are about to fall asleep in this poem are said to possess “Sweet moans, dovelike sighs” (Blake 13). In addition, the following lines from the poem serve to further cement the connection between children, animals, and natural innocence or divinity: “Sweet moans, sweeter smiles, / All the dovelike moans beguiles. / Sleep sleep happy child. / All creation slept and smil’d” (Blake 15-18). Many critics have commented upon how the characters and imagery within this particular poem blend together until they form an almost surreal scene. For instance, Zachary Leader comments upon the dreamlike quality of the poem:

In the second stanza the mother speaks of ‘sleep’ as if it too were separate from her sleeping child. In line 5 it assumes the form of a bird (‘with soft down’), in line 6 it becomes an ‘infant crown,’ and in line 7 an ‘angel mild’ hovering over the sleeping child. These rapid transformations (we barely have time to form one image before it flows into

another) and the fact that ‘sleep’ and ‘dreams’ are made to occupy space, like objects, lends a strange, dream-like quality to the poem, as do the ‘crooning, hypnotic rhythms’ of the mother’s lullaby, like ‘the rocking of the cradle.’ (98)

What Leader seems to be noticing, therefore, is that the surreal qualities of the poem create a feeling of merging between images of animals, images of divinity, and images of children.

Indeed, Leader later remarks that within this poem: “Conventional distinctions between self and other are beginning to dissolve” (98). Thus, a sense of harmony is being created between images of birds, children, and angels within the poem. Just as lambs were used in other poems to associate children with piety and innocence, children in this poem become linked to both birds and divinity. Likewise, in the poem “The Echoing Green,” the implication is that children are similar to little birds gathering in a nest around a mother-like figure. The narrator explains that the children gather “Round the laps of their mothers, / Many sisters and brothers, / Like birds in their nest, / Are ready for rest:” (Blake 25-28). These four lines demonstrate that the perceived fragility of children becomes linked to the perceived fragility of a flock of tiny birds through the imagery that Blake constructs. But perhaps the most obvious example of the way that Blake connects children to birds in *Songs of Innocence* occurs in the poem “Laughing Song.” In this poem, the voices of the children literally become like the chirping songs of little birds. The first four stanzas serve to establish the connection between children and a sense of jollity in the poem. The narrator states, “When the meadows laugh with lively green / And the grasshopper laughs in the merry scene, / When Mary and Susan and Emily, / With their sweet round mouths sing Ha, Ha, He” (Blake 5-8). At this point, children are only being associated with happiness and mirth. But in the next four lines, we see that Blake uses the same terminology to describe the birds laughing in the shade. He writes: “When the painted birds laugh in the shade / Where our table

with cherries and nuts is spread / Come live & be merry and join with me, / To sing the sweet chorus of Ha, Ha, He” (Blake 9-12). These lines highlight the way that the birds’ chorus echoes the chorus of the three girls, and they serve to further tie children to the actual birds being described through the repetition of the words “Ha, Ha, He.” This, then, is perhaps the best example of the way that Blake interchanges images of birds with images of children. The poems “A Cradle Song,” “The Echoing Green,” and “Laughing Song” present children as child-animals, since they imply that children are more closely tied to birds and to nature than other older characters are.

Since his child characters become child-animal cyborgs through the use of lamb imagery and bird imagery, it might be easy to assume that Blake connects children to animals because he sees them as naïve, immature, or inexperienced creatures. However, this is not necessarily the case. There are many poems in this volume which depict the sorrow of struggling children, or which present children who have suffered some misfortune. Yet even in these poems, in which children must come to terms with the darker aspects of daily life, Blake uses animal imagery in connection with childhood. For instance, in the poem “On Another’s Sorrow,” Blake asks: “And can he who smiles on all / Hear the wren with sorrows small, / Hear the small birds grief & care / Hear the woes that infants bear-” (Blake 13-16). Here, neither children nor birds are innocent in the traditional sense. They are not naïve; they have already experienced “woes” and “sorrows” in their lives. They have already experienced what it is like to “weep” as the next four lines demonstrate: “And not sit beside the nest / Pouring pity in their breast, / And not sit the cradle near / Weeping tear on infants tear” (Blake 17-20). Therefore, children are still connected to animal imagery whether or not they are innocent or even worldly. In another series of poems, entitled “The Little Girl Lost” and “The Little Girl Found,” these same sentiments are repeated.

The main character, Lyca, wanders through the wilderness as she follows the songs of a group of wild birds. In “The Little Girl Lost,” the narrator tells us that: “Seven summers old / Lovely Lyca told, / She had wanderd long, / Hearing wild birds song” (Blake 13-16). But in “The Little Girl Found,” Lyca falls asleep in a group of tigers and sheep, as the engraved illustration that appears alongside the poem demonstrates. In Blake’s model of childhood, then, innocence is not necessarily naivety. Lyca has wandered through the woods for several years and has experienced the hardships of the world. Yet, in the end, she once again finds companionship among various animals. Thus, the poems “On Another’s Sorrow,” “Little Girl Lost,” and “Little Girl Found” demonstrate that children are linked to animals in Blake’s ideology regardless of how naïve they are.

In these ways, then, the poems that compile *Songs of Innocence* create an argument that children are innocent but also animalistic. Through the imagery used in the poems, and the illustrated engravings which depict children beside animals in various scenes, Blake helped to create an ideology of childhood in *Songs of Innocence* which would echo through a vast array of literature for years to come. But before examining such other texts, it would be helpful to more closely explore the implications of such an ideology for Blake’s own subsequent work.

Experience

Although Blake may not have consciously set out to create any sort of ideology of childhood in his works at all, the poems and the images within *Songs of Innocence and Experience* do seem to create an argument that children are in many ways liminal and animalistic. The regressive utilization of child-animals cyborgs in *Songs of Innocence* serves to further push children to the margins of normative human experience and these visual and verbal arguments have repercussions. In some ways, Blake’s poetry mirrors sentiments within larger

society at the time of the Industrial Revolution, and in some ways it serves to actively legitimate or validate these sentiments. It cannot be forgotten that Blake was writing during an age of increasing industrialization, or that the Romantic movement was a response in part to the harsh realities of an urbanized modernized world that viewed children in terms of their labor value. Therefore, examining the ways Romantic authors animalized, idealized, and or even marginalized children in their work also means considering how such dehumanization affected the bodies of children that were already at risk in an increasingly industrialized society.

The poetry of William Blake, particularly the poems found in *Songs of Innocence and Experience*, frequently present child characters whose identities are largely defined by their occupations or by the machinery and technology they work with. In this way, Blake's poetry is a reflection of the way adults at both the end of the eighteenth century and the beginning of the nineteenth century used children to increase production efficiency and economic capital. Frequently, child characters which appear within *Songs of Innocence and Experience* are early versions of mechanized child-cyborgs in the sense that their bodies get used for their production value or are changed as these children encounter increasingly industrialized landscapes.

Blake's depictions of the mechanized child-cyborg would become more and more obvious as he continued to write *Songs of Innocence* and as he began to craft *Songs of Experience*. One particular representation of the child-cyborg which appears in both the 1789 and 1794 volumes is that of the figure of the chimney sweeper. As Blake began to move away from pastoral scenes into discussions of children in more urban environments, the figure of the chimney sweeper would keep reappearing in his work. And, since *Songs of Innocence* and *Songs of Experience* each contain different poems entitled "The Chimney Sweeper," it may be helpful

to more closely examine these two poems to trace how the figure of the child-cyborg functions and evolves in these poems.

In the version of “The Chimney Sweeper” which appears in *Songs of Innocence*, an anonymous speaker describes his occupation as well as the struggles of his friend and co-worker, a young boy named Tom. The speaker tells us in the first few lines of the poem that he had been forced into this occupation after the death of his mother due to the fact that his father “sold” him: “When my mother died I was very young, / And my father sold me while yet my tongue / Could scarcely cry ‘weep! ‘weep! ‘weep!” (Blake 1-3). It is here in this stanza that readers first begin to sympathize with this speaker’s misfortune, and it is also at the end of this stanza that readers first get an introduction to how the speaker’s body has become cyborgian. The speaker’s body is an example of a child-cyborg because his organic body becomes a laboring body that is highly affected by the industrialized landscape he now finds himself in. When the speaker states: “So your chimneys I sweep, and in soot I sleep” (Blake 4), the lines between the urban and the organic become increasingly blurry. The fact that the speaker’s body is literally covered in soot, in conjunction with the fact that this condition is so commonplace to him that he can fall asleep in such a state, serves to highlight how industrialized urban environments became a part of the very biology of young boys working as chimney sweepers during the Industrial Revolution. This theme reappears in “The Chimney Sweeper” when the speaker’s friend Tom gets his head shaved in order to keep the soot from accumulating in his hair (Blake 5-8), and when the figure of the chimney sweeper appears again in a slightly different context within *Songs of Experience*.

The version of “The Chimney Sweeper” from *Songs of Experience* does not really seem to contain the original characters from the first poem, although such a connection could arguably be drawn. However, the figure of the child-cyborg does reappear in this piece, since once again

the poem contains imagery of a young boy covered in soot. The first line of the poem opens by stating: “A little black thing among the snow, / Crying ‘weep! ‘weep!’ in notes of woe!” (Blake 1). Here, the lines between the organic and the industrial are so indistinguishable that the speaker’s body has literally become a “thing,” something that is not even necessarily identifiable as human. Later the speaker reveals that his parents are mostly responsible for this situation, since he states that: “They clothed me in the clothes of death, / And taught me to sing the notes of woe” (Blake 7-8). Even the boy’s clothes, then, become symbols of his occupation and of his potentially premature death. Unlike the poem appearing in *Songs of Innocence*, this poem has a much less hopeful ending.

In the first version of “The Chimney Sweeper,” the outcome for the boys is ultimately hopeful, since the speaker of the poem reminds Tom that innocence is a state of mind that can help one to survive even the most difficult lifestyle. Tom has a vision, or dream, of an angel who can free the chimney sweepers from their metaphorical coffins: “And by came an angel who had a bright key, / And he opened the coffins and set them all free;” (Blake 13-14). After he has this vision, readers of the poem can see that Tom is more able to face his daytime work. The angel tells Tom that if he is “good” (Blake 19), God will provide for him. The next morning, the speaker describes how Tom faces his duties with cheer: “And so Tom awoke; and we rose in the dark, / And got with our bags and our brushes to work. / Though the morning was cold, Tom was happy and warm; / So if all do their duty they need not fear harm” (Blake 21-24). The transcendent vision Tom has had, along with the spiritual purity that he can now carry with him, allow him to remain in a state of innocence even though he must face difficult experiences as a chimney sweeper. However, the second version of “The Chimney Sweeper” which appears in *Songs of Experience* is much less optimistic. The speaker’s unhappiness is evident in the last

stanza of the poem: “And because I am happy and dance and sing, / They think they have done me no injury, / And are gone to praise God and his priest and king, / Who make up a heaven of our misery” (Blake 9-12). The boy in this poem seems to recognize that his life will continue to be miserable due to his occupation as a chimney sweeper.

Another poem within *Songs of Experience* that investigates the concept of the mechanized child-cyborg in a cynical way is the poem entitled “London.” Within this poem, Blake describes the growing industrialization of London at the end of the eighteenth century, and comments upon the destitution and despair that emerge as a result of this urbanization. In the second stanza, the speaker of the poem exclaims: “In every cry of every Man, / In every Infant's cry of fear, / In every voice, in every ban, / The mind-forg'd manacles I hear” (Blake 5-8). Blake's use of the phrase “mind-forg'd manacles” evokes a sense of mechanization that is present in society, and the “Infant's cry” that the speaker mentions hints at how children were rapidly becoming part of this mechanized landscape. Further support for this claim is found in the next stanza when Blake again brings up the image of the chimney sweeper. The speaker of the poem states: “How the Chimney-sweeper's cry / Every black'ning Church appalls,” (Blake 9-10). This harkens back to the images of soot and the descriptions of children's woeful cries in both versions of “The Chimney Sweeper.”

Therefore, the poem “London” and the two poems entitled “The Chimney Sweeper” all present child-cyborg characters to readers. The children within these poems are examples of individuals who were forced to participate in labor systems allowing them little agency; they exemplify the laboring and mechanized child body. Blake's depictions of increasingly industrialized and mechanized organic child bodies serve to further blur the lines between the human and the mechanical in his poetry. Such depictions highlight the way children were

rapidly becoming valued primarily for their production value during the Industrial Revolution, and the way that children's bodies occasionally suffered from such practices. Although Blake seems to be sympathetic to the circumstances laboring children found themselves in during this era, his work still uses children to analyze his own anxieties about the future, and presents children as cyborgian characters who are marginalized by society due to their occupations. In this way, children are represented as liminal figures on the outskirts of society. While this in itself may not be problematic, since many children were in fact marginalized and abused during this era by adults in a society that was largely indifferent to their well-being, such representations of mechanized child-cyborg figures may become problematic after considering how these characterizations operate dialectically with cyborgian constructions of child-animals in Romantic literature.

Reverberations

Upon closer examination, it begins to become evident that the figure of the child-animal cyborg and the figure of the mechanized child-cyborg are closely intertwined, and have been since the era of the Industrial Revolution. While it is not entirely possible to say that one of these constructions led to the other, since history is rarely so linear, it may be fruitful to examine how these two identities overlap with and influence each other in a dialectical relationship. Just as nature and technology have been set in opposition to each other in many discourses, and just as conceptions of innocence and experience appear to be oppositional, the figure of the child-animal cyborg and the figure of the mechanized child-cyborg seem to exist in a state of tension. However, just as tensions between nature and technology frequently collapse, blurring the boundaries between the organic and the nonorganic, so too do the tensions between the child-animal cyborg and the mechanized child-cyborg frequently disintegrate. While it is impossible

to say whether the construction of children as animalistic or as dehumanized led in turn to the emergence of the mechanized child-cyborg during the Industrial Revolution, or whether the emergence of the mechanized child-cyborg first led to the construction of the child-animal cyborg in Romantic poetry, it becomes interesting to consider how these two identities overlap and intertwine in texts like *Songs of Innocence and Experience: Shewing the Two Contrary States of the Human Soul*.

For instance, an argument could be made that children have always been dehumanized in some way, whether through associations with animality or primitivity, and that this dehumanization is what led to the abuse of child bodies as cyborgian laborers during the Industrial Revolution. In other words, adults' ambivalent attitudes towards children might have allowed for the abuse of child bodies through labor practices to occur with greater ease. From this perspective, *Songs of Experience* could be read as a sympathetic text, since these poems describe the plight of child laborers in a cautionary and compassionate way. The emergence of the figure of the child-animal cyborg in *Songs of Innocence* could then be seen as an escape from the abuses of society, since the poems in this collection idealize and worship children for their innocence and return children to serene pastoral landscapes removed from industrialized society.

But it is my contention that *Songs of Innocence* might also be dangerous in some ways. As the Romantic poets turned their backs on the increasing industrialization of society, they grew wary of cyborgian and mechanized labor practices, particularly those which forced children to grow up quite quickly. They established an influential tension between nature and technology, and between innocence and experience, using the figure of "the Child" to do so. Such constructions would have long-lasting effects on the relationship between children and technology for centuries to follow. In their effort to "preserve" childhood, the Romantic poets

shunned the mechanized child-cyborg, presenting children in their work as idealized figures, as natural creatures, as animalistic “others.” Children in these poems become idealized child-animal constructions, to the point that their bodies are almost fetishized by adults longing to return to a simpler more childlike way of life, and such representations ultimately act to further marginalize children. Thus, children in these texts are constructed as liminal figures and are pushed even further outside the bounds of normative human experience, making their bodies all too easy to manipulate. Such a dehumanization of children might have had potentially dangerous effects on both subsequent representations of children and on real children.

Certainly Blake’s representations of children continued to influence artists and authors for many years to come. The connection between animals, natural innocence, and childhood only continued to grow after *Songs of Innocence and Experience: Shewing the Two Contrary States of the Human Soul* was published as a completed volume in 1794. Romantic poets such as William Wordsworth, Henry David Longfellow, and Elizabeth Barrett Browning frequently followed Blake’s lead in associating children with animals in their work.⁵³ Children within Romantic poetry were often compared not only to animals, but to plants, or to other natural wonders. Such children were also frequently idealized or fetishized due to perceived affiliations between childhood, nature, and divine wisdom. And, due to the prevalence of such characterizations, representations of child-animal cyborgs increasingly began to appear more and more natural and began to become naturalized. Indeed, this trend of linking children to animals in textual representations would continue throughout the nineteenth and twentieth centuries, in fictional novels such as *The Jungle Book* (1894), *Tarzan of the Apes* (1914), *The Yearling* (1938), *The Black Stallion* (1941), *Lord of the Flies* (1954), *Where the Red Fern Grows* (1961),

⁵³ See Wordsworth’s “Lines Written A Few Miles Above Tintern Abbey,” “Three Years She Grew in Sun and Shower,” and “The Pet-Lamb, a Pastoral;” Longfellow’s “To a Child,” “In the Harbour,” or “The Children’s Crusade;” or Browning’s “The Cry of the Children,” “The Deserted Garden,” and “Comfort.”

Where the Wild Things Are (1963), *Julie of the Wolves* (1972), *Eva* (1988), *Whalesinger* (1990), *The Golden Compass* (1995), and *Dr. Franklin's Island* (2002). Similarly, associations between animals and children have long been a hallmark of the film industry, as an examination of movies like *Lassie Come Home* (1943), *Old Yeller* (1957), *Misty* (1961), *The Black Stallion* (1979), *Teen Wolf* (1985), *Free Willy* (1993), *My Dog Skip* (2000), and *Nim's Island* (2008) reveals. Alliances between children and animals have become naturalized in modern society, and today's representations certainly seem to take their inspiration from early Romantic texts that linked children to innocence, animality, and nature. Children in the early nineteenth century were seen as innocent creatures, of course, but also as liminal figures who had more in common with the natural world than with the human world. Such representations were in many ways dehumanizing. These representations would also consequently lead to harmful ideologies about children which linked childhood to nature and set childhood innocence in opposition to technology.

It is this Romantic marginalization of children through associations with animality, perhaps, that led to a more effortless dehumanization of children during the Victorian period. Although the Victorian era had a great deal in common with the Romantic period, it differed from this movement in many important ways. While associations between animality and childhood had a seemingly positive tone during the Romantic period, associations between children and animals during the Victorian era would soon become a bit darker.

The emergence of evolutionary science towards the end of the Romantic period and throughout the Victorian era had a lot to do with this change. The publication of a two-volume work entitled *Zoonomia* in 1794 by Erasmus Darwin (the grandfather of Charles Darwin) hinted that all warm-blooded animals had descended from a single source. The book also anticipated to

some extent later theories about natural selection. In 1798, a man named Thomas Robert Malthus published “An Essay on the Principle of Population” which would later influence evolutionary theorists through its arguments about struggles between favorable and unfavorable populations. A few years later in 1809, Jean-Baptiste Lamarck would publish his “transmutation theory” in *Philosophie Zoologique*, which argued in favor of the inheritance of acquired characteristics and environmental adaptation. All of these scientists paved the way for later evolutionary theorists who would begin to argue that humans and nonhumans descended from the same ancestors. In 1838, a man named Charles Darwin began working on his theory of natural selection that would forever change how society thought about humanity and animality.

With the publication of Darwin’s book *On the Origin of Species by Means of Natural Selection* in 1859, debates about natural selection’s role in the evolution of various species erupted. Although Darwin only hinted upon what the concept of natural selection might mean for discussions of human evolution in the final chapter of his book, his readers soon began to debate amongst themselves whether human beings had descended from the animal kingdom. Darwin would later take up these arguments in a book published in 1871 entitled *The Descent of Man, and Selection in Relation to Sex*. But even after the initial publication of *The Origin of Species by Means of Natural Selection*, society would never be the same. Religious leaders, scientists, cultural critics, and everyday citizens would struggle to deal with newfound anxieties about being “human.” These anxieties stemmed from fears of primitivity and animality, as well as from fears about what Darwin’s evolutionary theories meant for religion, and subsequently death. The possibility that the human species had descended from animals meant that the concept of God, and therefore the concept of immortality, was in question. Anxieties about

death itself, about the supernatural, and about animality, were more frequently beginning to surface throughout the nineteenth century.

Some people would react to Darwin's scientific discoveries by trying to distance human beings from the animal population as much as possible, and anxieties about primitive instincts began to surface in literature and other forms of art. Therefore, if children were increasingly being depicted as child-animal cyborgs in late eighteenth and early nineteenth century literature, and if such representations were so commonplace that they were, in a sense, becoming naturalized, what did Darwin's theories mean for real children who were already being viewed more and more frequently as animalistic? If children were dehumanized in some ways during the Romantic movement, due to how adults marginalized and fetishized natural innocence, and due to the way children were linked to animals in Romantic poetry, how did a widespread fear of animality in Victorian society affect real children in everyday life?

As the passage of numerous Factory Acts throughout the course of the nineteenth century demonstrates, everyday children in Victorian society were increasingly used by their families for their production value and were subjected to questionable working environments in urban communities. The Factory Act of 1833, which imposed regulations on the number of hours children could work, as well as on the inspections factories had to routinely undergo, indicates what sorts of conditions children found themselves working in at the beginning of the century. A range of other Factory Acts continued to be passed up until the end of the century, with new legislation appearing in 1844, 1856, and 1878, and with additional acts following even in the twentieth century. The proliferation of these Acts points to the terrible conditions children were forced to navigate as they attempted to provide economic capital for themselves and for their families. Therefore, the dehumanization of children through Romantic representations of

childhood was becoming so prevalent that it increasingly affected the way children and their bodies were treated in Victorian society. The laboring child bodies in England during the nineteenth century were mechanized child-cyborgs, and for the first time children's bodies would become organic/mechanical hybrids in a systemized wide-ranging way. Children were experiencing more and more independence as they moved away from their family homes and local communities; they were also accessing more and more technology, more and more embodied experiences, and more and more knowledge. These factors, combined with the spread of theories of Darwinian evolution and animality, worked together to create a growing fear of "the Child" in Victorian society, along with an opposing desire to "protect" children from seemingly undesirable experiences. But these desires could not prevent children from accessing new experiences, new systems of labor, newfound independence, and new sources of knowledge as they ventured past pastoral landscapes out into new urban landscapes.

The influence of Romantic poets, the changes brought about the Industrial Revolution, the theories of evolutionary scientists like Charles Darwin, and the growing associations between children and animals all served in some ways to push actual children even further outside the boundaries of what might be considered "human" during the late Romantic and early Victorian eras. Adults continued to internalize and repress anxieties over issues such as immortality, humanness, embodiment, and religion in the latter half of the nineteenth century, and began to develop at fears about children's access to new kinds of experiences and information. As society struggled to cope with anxieties about death, the afterlife, the nonhuman, the disappearance of human sovereignty, and the unknown, children were becoming more and more exposed to different environments. Because of adults' changing fears about the nonhuman, and because of their fears about changing conceptions of childhood innocence, adult authors and artists would

begin to move away from depicting children as animalistic and would begin to associate children with preternatural themes or with conceptions of the uncanny. Using child characters in textual representations to work through and express fears about the preternatural (whether on a conscious level or not) became a prevalent way of coping with cultural and personal anxieties, as an analysis of *The Turn of the Screw* and *The Adventures of Pinocchio* will prove in the chapter following this one.

CHAPTER 3

Creepy Children: The Uncanny and the Preternatural Child-Cyborg

The double is a threat to the integrity of the self, and frequently evidence of a Gothic, supernatural force at large that brings with it death and destruction. Tales of doubling are, more often than not, tales about paradigms of good and evil.

-- Linda Dryden, *The Modern Gothic and Literary Doubles*

Cultural critics are beginning to understand that, historically, “the Child” has often operated as a lens through which adults have examined and explored their own anxieties about life, death, and all that falls in between. Just as a lens is used to distance the self from what is being examined, while also ironically bringing it closer, representations of childhood are constructions that frequently function as convenient tools for adults. These tools can be put away or manipulated at will. And, unlike mirrors, which usually suggest qualities of reflection and recognition, adults will usually fail to recognize themselves or their desires within the lens of childhood they are looking through at any given time. Examples of this appear in constructions of childhood innocence in Romantic texts, and in the way Romantic authors frequently linked children with nature and animality in order to work through their own anxieties about the mechanization of society.

Because adults *do* project their own emotions and preoccupations upon constructions of children, children can also be seen as metaphorical doubles for adults. Children frequently act as uncanny reminders, both of the unconscious adult “self” and of what is “other,” in literature and popular culture. And if, as Freud has claimed in his seminal essay “The Uncanny,” most feelings of an uncanny nature result from encountering “something familiar which has been repressed” (16), then it is possible that many adults are so drawn to children because they see within these children what they have grown to repress in their own psyches (memories of the purity of

preadolescent states of being, and reminders of the subsequent “fall from innocence” humans experience as they mature).

To complicate things even more, it is important to consider how children also become linked to the uncanny through associations with the supernatural or the preternatural in textual representations. Particularly in Victorian Gothic novels, but also more recently in cinematic texts (such as horror movies and science fiction thrillers), children have become both the heroes and the villains, the innocents that need saving and the unknown adversary that is dreaded. Frequently, they are “possessed,” by unknown forces that epitomize what adults dread being overtaken by. The bodies of such children often become animated by a secondary force, one which inhabits them and threatens to steal the supposed “innocence” they possess. Adults fear that children are able to access informational systems that they themselves cannot, and they worry that children’s innocence, which they fetishize in many ways, will be threatened by relationships with the preternatural.

This fetishized innocence, adults fail to realize, is really their own “lost” innocence, the innocence they have necessarily sacrificed to enter adulthood. Recollections of this loss of innocence create painful responses that are repressed as they age, and this state of innocence is mourned for unconsciously but deeply. Hence, they are drawn with morbid fascination to stories in which adults fight tooth and nail to protect the innocence of children in jeopardy; they sympathize with children’s loss of innocence, they dread it, and they are excited in a strange way by the possibility of such loss since it reminds them of what they themselves experienced.

In this way, children’s encounters with the nonhuman are feared because such encounters demonstrate that children are able to access informational systems that adults cannot regulate, and they imply that the innocence associated with childhood can be annihilated very suddenly.

Likewise, adults fear that the innocence of childhood can be “replaced” by that which is viewed as amoral or depraved. Thus, constructions of childhood as a time of innocence, or representations of lost childhood innocence, hold immense power over adults.

But where did this belief in the power of innocence and lost innocence come from? In recent years, historians have begun to argue that children have not always been seen as innocent. Pointing to the Middle Ages, authors like Philippe Ariès have argued that in medieval society, “nobody thought that this innocence really existed” (108), since children during this time were encouraged to enter into adulthood as quickly as possible. Other critics point to the Puritans, and their belief in “original sin,” as an example of how innocence was not inherently instilled in children at birth. It is widely accepted among scholars of childhood studies today that conceptions of childhood innocence first took root during the Romantic era, and that the fetishization of childhood innocence led to a certain Victorian pathos regarding the loss of innocence many children faced due to changes brought about by the Industrial Revolution.

Indeed, many Victorian and Gothic Victorian novels deal with themes of lost childhood innocence. Both texts written for adults, such as Henry James’ novel *The Turn of the Screw*, and books written for children, like *The Adventures of Pinocchio*, present children tainted in some way by the presence of the supernatural, by the presence of the uncanny, or as a result of child labor practices common during the nineteenth century. In many of these novels, concepts and constructions of childhood purity and the “untouched” emptiness of innocence are actually just facades, ones which mask adult anxieties. As James Kincaid has noted in his book entitled *Erotic Innocence: The Culture of Child Molesting*, “...it is necessary that they [children] be ‘innocent and pure’ if they are to be alluring and also give adults the sentimental stories of denial and projection we find indispensable” (16). And indeed, these projections manifest themselves

as adult authors (or even adult characters) struggle in such texts to come to terms with their own sexuality, animality, or even mortality, through discourses of innocence. If adults become more and more conscious of these projections, particularly as scholars of culture and of literature, childhood ceases to become a lens and acts instead as a mirror. “The Child” therefore becomes a reflection within which they can see and better understand themselves.

Victorian novels illustrate the way that constructions of childhood can become sites for the projection of adult desire and fear (particularly in terms of a loss of innocence), and how children’s bodies can become uncanny “others” reflecting back to adults their unconscious feelings. But these novels also frequently present children who are tied in some manner to the supernatural, as child characters are linked to - or possessed by - strange “others” who inhabit or manipulate their bodies. Taking into consideration the important role the sense of duality plays in Freud’s traditional definition of the uncanny, this double-layer of duality present in so many representations of Victorian childhood becomes especially important to consider. For, as Freud claims in “The Uncanny,” the “...uncanny has in reality nothing new or foreign, but something familiar and old – established in the mind that has been estranged only by the process of repression” (13). Subsequently, Victorian Gothic novels may be, in a sense, doubly uncanny, since childhood itself is an uncanny reminder of familiar and strange adult desires which are unconsciously repressed or projected, and since the bodies of preternatural children become “animated” by an unknown “other” who is also an uncanny double. Through these unmediated experiences with nonhuman systems, children become cyborgian and are able to access experiences and knowledge that adults lack. If the unknown “others” in these stories frequently represent “death” in some way - the “death” of a child’s control of his or her own physical or mental capacities, or adults’ own deaths which the supernatural constantly reminds them of (that

unconscious state of non-being that is both familiar and wildly strange to each individual from the moment of his or her birth) - it becomes apparent why the “creepy child” has remained one of the most terrifying tropes in popular lore. The sense of the uncanny becomes exponential in representations of the “creepy child,” and stimulates simultaneous desires within adults to protect what is familiar, to guard against what is not, and to shut down children’s access to systems they cannot themselves access. This is why preternatural children are often the most terrifying “villains” in popular literature and film. It is certainly one of the reasons why novels such as *The Turn of the Screw* have continued to haunt readers through the years, especially since *both* Flora and Miles signify preternatural children. As James writes in the novel’s opening chapter: “If the child gives the effect another turn of the screw, what do you say to two children?” (3).

But, before performing an analysis of children and the uncanny in *The Turn of the Screw* and other Victorian tales like *The Adventures of Pinocchio*, it may first prove advantageous to more closely consider what aspects of the preternatural child are also cyborgian. Examining discourses of the cyborg from theorists such as Donna Haraway and Bruce Grenville can reveal that the preternatural child has a great deal in common with the cyborg. Both figures are often defined in relation to conceptions of innocence and irony, as well as to the uncanny. And, like cyborgs, preternatural children exist outside the realm of traditional adult experience, strangely alluring yet repulsive. They are liminal figures that blur traditional boundaries between the mortal and the immortal, the physical and the nonphysical, and the human and the nonhuman. If, as Donna Haraway has claimed in her essay “A Cyborg Manifesto,” cyborgs are really “ether, quintessence” (294), it is possible that the preternatural child (the “ghost child” or the “possessed” child) is a child-cyborg of sorts.

In eerily similar ways, both the preternatural child and the cyborg reject traditional innocence. By contacting the supernatural world, the demonic world, or the alien world, the preternatural child is often thought to “lose” some of its innocent purity. Instead of remaining empty and blank, the preternatural child accesses experiences with the otherworldly. It rejects the natural for the supernatural, confined alienation for connection, and all of the myths of “original” purity or natural unity typically associated with childhood. As Haraway notes, “The cyborg is resolutely committed to partiality, irony, intimacy, and perversity. It is oppositional, utopian, and completely without innocence” (292). Indeed, throughout the course of “A Cyborg Manifesto,” Haraway claims that unity should be rejected for partiality and that an innocent original unity is a fiction that does more harm than good. She states, “It is certainly true that postmodernist strategies, like my cyborg myth, subvert myriad organic wholes (for example, the poem, the primitive culture, the biological organism). In short, the certainty of what counts as nature – a source of insight and promise of innocence – is undermined, probably fatally” (294). If the preternatural child, then, is a child who has “lost” some sort of “natural” purity by making contact with the nonhuman, it is a child that is also cyborgian.

Furthermore, the preternatural child is ironic in much the same way that the cyborg is inherently oppositional. The “possessed” child is a paradox of sorts, since it represents both innocence (via the body of the child) and experience (via the possessor). Childhood itself is also ironic, since it indicates paradoxically both immortal youth and the projected fear of adult mortality. Similarly to “the Child,” the cyborg, too, contains oppositional qualities. As Haraway claims in “A Cyborg Manifesto”:

Irony is about contradictions that do not resolve into larger wholes, even dialectically, about the tension of holding incompatible things together because both or all are

necessary and true. Irony is about humour and serious play. It is also a rhetorical strategy and a political method, one I would like to see more honoured within socialist-feminism. At the centre of my ironic faith, my blasphemy, is the image of the cyborg.

(291)

Much as Haraway claims the cyborg is “ironic” or even “blasphemous,” the figure of the preternatural child is also symbolic of contradictory irony and forbidden blasphemy (since it calls into question the sacred innocence of “the Child”).

Finally, “the Child” and the cyborg both contain elements of the uncanny. If children are uncanny in the sense that they contain unconscious projections of fear and desire which are simultaneously strange and familiar to adults, the cyborg is uncanny in the sense that it contains elements of the human in the machine and that it evokes a similar sensation of longing and fear. Bruce Grenville, in his book *The Uncanny: Experiments in Cyborg Culture*, states that, “The cyborg is an uncanny image that reflects our shared fascination and dread of the machine and its presence in modern culture” (10). Much like Freud, who claims that the uncanny is comprised of elements of both the familiar and strange, and Haraway, who writes of the duplicity of the cyborg, Grenville is aware of the ironic and uncanny elements of the cyborg. He writes:

I argue that the cyborg is uncanny not because it is unfamiliar or alien, but rather because it is all too familiar. It is the body doubled – doubled by the machine that is so common, so familiar, so ubiquitous, and so essential that it threatens to consume us, to destroy our links to nature and history, and quite literally, especially in times of war, to destroy the body itself and to replace it with its uncanny double. (Grenville 20-21)

Similarly, the preternatural child is uncanny; the child’s body becomes “possessed,” and the possessor destroys this body in order to animate it. But, it is important to remember the caution

that Haraway posits at the end of “A Cyborg Manifesto.” When considering the concept of animation in relation to the cyborg, she states, “The machine is not an *it* to be animated, worshiped and dominated. The machine is us, our processes, an aspect of our embodiment” (315). Therefore, the “possessed” child is actually a machine in and of itself; it is a network, or system, that functions on its own. The preternatural child literally becomes a cyborg, a human body connected with the otherworldly, but also a fused machine that blurs traditional boundaries between the material and the immaterial, the human and the nonhuman, and the familiar and the strange. In this way, the preternatural child-cyborg is also exponentially uncanny, since it combines traditional conceptions of the uncanny cyborg with the uncanny child, while simultaneously serving as a lens through which adults can examine their own obsessions and problems.

These overlapping qualities that the preternatural child and the figure of the cyborg share afford some interesting opportunities for examining the evolution of the child-cyborg from the Romantic construction of the animal-child cyborg (discussed in the previous chapter of this project) into the Victorian movement. While an analysis of the uncanny in texts like Henry James’ *The Turn of the Screw* can highlight the way in which the liminal child-cyborg figure moved from the animalistic child to the preternatural child during the Victorian period, an analysis of the uncanny in texts like Carlo Collodi’s *The Adventures of Pinocchio* can help track how the laboring child-cyborg body continued to evolve at the close of the nineteenth century. This turn away from the animalistic child-cyborg, so prevalent during the Romantic period, and the simultaneous evolution towards the preternatural child-cyborg and its relationship to the uncanny, may explain a great deal about changing adult preoccupations, obsessions, and repressions from the Romantic movement to the Victorian movement.

Irony and Criticism in *The Turn of the Screw*

Henry James' 1898 publication *The Turn of the Screw* has been a critically contested novel. The book's consideration of "the Child" is part of this controversy, although many critics do not overtly acknowledge this to be so. On the surface, two schools of thought have differed in how they interpret the figures of Ms. Jessel and Mr. Quint, with some critics claiming these figures really are apparitions (even if symbolic ones), and with other more psychoanalytically-inclined scholars arguing that these characters are really the hallucinations of a hysterical or sexually-repressed governess. This divide among critical scholars is so controversial because what is at stake in these interpretations is the very conception of innocence and its relationship to "the Child."

The criticism which claims that Ms. Jessel and Mr. Quint are to be read as apparitions, implies that the innocence of the children in the text has been in some ways compromised. Many literary scholars have demonstrated in various ways how *The Turn of the Screw* can and should be read as a ghost story or a story in which the figures of Ms. Jessel and Peter Quint are symbolic of the presence of evil. Critics such as Francis X. Roellinger, Jr. and Charles G. Hoffman have argued in favor of the apparition interpretation, while more recently other critics such as Robert Heilman, Thomas J. Bontley, and Peter G. Beidler have explained the way that these ghosts, if not literal apparitions, are at least symbolic of some larger darkness operating within the text.⁵⁴ While it is not the goal of this project to either prove or disprove these apparitionist theories, it is interesting to note that such interpretations usually construct the innocence of child characters

⁵⁴ For further reading, see Roellinger, Francis X. "Psychical Research and 'The Turn of the Screw.'" *American Literature* 20.3 (Nov. 1948): 401-412. *JSTOR*. Web. 4 April. 2012.; Hoffman, Charles G. "Innocence and Evil in James's *The Turn of the Screw*." *A Casebook on Henry James's The Turn of the Screw*. Ed. Gerald Willen. New York: Crowell, 1960. Print.; Heilman, Robert. "The Turn of the Screw as Poem." *A Casebook on Henry James's The Turn of the Screw*. Ed. Gerald Willen. New York: Crowell, 1960. Print.; Bontly, Thomas J. "Henry James's 'General Vision of Evil' in *The Turn of the Screw*." *Studies in English Literature, 1500-1900* 9.4 (Autumn 1969): 721-35. *JSTOR*. Web. 6 Apr. 2012. or Beidler, Peter G. *Ghosts, Demons, and Henry James: The Turn of the Screw at the Turn of the Century*. Columbia: University of Missouri, 1989. Print.

Miles and Flora as being jeopardized by preternatural presences. According to these interpretations, the children are not only able to see the ghosts, they also maintain mysterious relationships with these ghosts during their playtime and when they should be sleeping. The apparitionist theorists, then, would interpret the ending of the book (Miles' death) as a commentary on the way that the presence of the supernatural, or evil, can ruin childhood innocence (since they would claim Miles dies of fright when he sees the ghost of Peter Quint).

On the contrary, a view of the governess as mentally ill suggests that both Flora and Miles remain untouched by the supernatural at the end of the text. Critics such as Edmund Wilson have argued that Ms. Jessel and Peter Quint are hallucinations stemming from the mind of a sexually repressed governess, while scholars such as Edna Kenton, Oscar Cargill, and John Lydenberg have similarly implied that the ghosts are the imaginings of a mentally ill woman.⁵⁵ In these interpretations, the children have never seen supernatural spirits at the end of the tale, even though they have suffered at the hands of an insane governess. Such readings claim that the ending of James's novel depicts the horrors of an overbearing maternal figure, and not the horrors of the supernatural, since such interpretations imply that Miles dies of fright at the hands of the *governess* and *not* as a result of seeing Peter Quint. While these arguments seem to be as equally interesting and as equally problematic as any countering apparitionist theory, ultimately James' text does not support such a conclusive reading either way. What these two schools of critical interpretation have in common, however, is that they both allow for a sense of the uncanny to operate within James' text.

⁵⁵ See Wilson, Edmund. "The Ambiguity of Henry James." *The Triple Thinkers*. New York: Macmillan, 1976. 88. Print.; Kenton, Edna. "Henry James to the Ruminant Reader: The Turn of the Screw." *A Casebook on Henry James's The Turn of the Screw*. Ed. Gerald Willen. New York: Crowell, 1960. Print.; Cargill, Oscar. "The Turn of the Screw and Alice James." *PMLA* 78.3 (Jun 1963): 238-49. *JSTOR*. Web. 5 Apr. 2012.; and Lydenberg, John. "The Governess Turns the Screws." *A Casebook on Henry James's The Turn of the Screw*. Ed. Gerald Willen. New York: Crowell, 1960. Print.

In apparitionist readings of the novel, Miles and Flora are certainly examples of exponentially uncanny children. Because adult readers, as well as the governess, project onto the children their own fetishizations of childlike innocence, as well as their own feelings of mourning for past innocence states which have been sacrificed to maturity, the two children are both familiar and strange. Likewise, because the children are able to see and contact the supernatural figures of Ms. Jessel and Peter Quint, they are liminal figures that blur the boundaries between the mortal and the immortal, the human and the nonhuman, and the spiritual and the physical. Their contact with the supernatural calls into question their ability to remain human, especially since they are in danger of being possessed by these preternatural figures. In this way, the contact Miles and Flora have with Ms. Jessel and Peter Quint can mean several things for an apparitionist critic. For instance, the possession of the children's bodies (or the possession of their innocence) by ghosts could be said to result in a certain kind of death for these children, a metaphorical death in terms of loss of control of the mind/soul over the body. Likewise, the supernatural also symbolizes death since it represents life beyond the mortal physical body, a strange yet familiar state. Miles and Flora unnerve both readers and the governess precisely because so much about them is familiar and strange, known and unknown.

In contrast, psychoanalytic readings of *The Turn of the Screw* are uncanny only to the governess herself. For this character, Miles and Flora symbolize what she once had and what she has lost. They represent her own former innocence, which she projects onto them and relentlessly attempts to protect. In her mind, the children have also been "possessed" by supernatural forces whether literally or metaphorically. Therefore, they are uncanny to her in many ways, just as she herself appears uncanny to readers of the text. Because the governess sees herself in the children, and because they also represent the "death" that the preternatural

symbolizes, they appear exponentially uncanny to her. Since readers see their own desires to protect children in the governess, as well as the possibility of hysteria or madness when such desires become manic, the governess can be seen as strangely eerie and uncanny. To the psychoanalytic critic, the governess is horrific precisely because she represents not only the goodness of well-meaning intentions, but also the devastating consequences that come with allowing oneself to be carried away by the force of such intentions.

Out of these two divergent readings, then, an interesting tension arises. It is my argument that it is precisely this tension that has led to the long-lasting popularity of *The Turn of the Screw*. Since readers are equally drawn with morbid fascination to the uncanny child characters of the novel or to its uncanny governess (depending on which interpretation they choose to align themselves with), a paradox is created in which readers are constantly unsettled as they try to determine who they should sympathize with. As they struggle to recognize themselves in both the children and the governess, they must come to terms with their own conceptions of childhood innocence and the preternatural. A brief analysis of several passages of the text might illuminate such tensions, as well as the ways children can be read as preternatural cyborgs in James' novel.

Sight and Possession in *The Turn of the Screw*

The central tension in *The Turn of the Screw* arises out of a struggle for sight, and therefore knowledge and power. Throughout the novel, the governess attempts to keep the children from "seeing" Ms. Jessel and Peter Quint, while she also finds it difficult to cope with what she herself has seen. In addition, Ms. Jessel and Peter Quint also frequently "fix" (James 56) Flora, Miles, and the governess with stares that the governess finds intimidating. Returning for a moment to Freud's definition of "The Uncanny," this scopophobia that the book exhibits becomes interesting to consider.

As Freud initiates his exploration of the uncanny, he begins by investigating the role of intellectual uncertainty in uncanny feelings, but quickly downplays this uncertainty as he moves into a discussion of sight. Referencing Hoffman's infamous story of "The Sandman" in *Nachtstücken*, Freud spends a significant portion of his essay analyzing motifs of eyes and sight in popular stories. Of "The Sandman," he writes: "This short summary leaves, I think, no doubt, that the feeling of something uncanny is directly attached to the figure of the Sand-Man, that is, to the idea of being robbed of one's eyes; and that Jentsch's point of an intellectual uncertainty has nothing to do with this effect" (Freud 7). Later, he proceeds to qualify this observation by discussing the relationship of the eyes to infantile psychology. He states, "A study of dreams, phantasies, and myths has taught us that a morbid anxiety connected with the eyes and with going blind is often enough a substitute for the dread of castration" (Freud 7). Therefore, Freud links issues of castration and power to issues of sight, implying that a fear of losing sight often equals a fear of losing phallic power.

Elsewhere in his essay, Freud explains how this fear manifests itself in relation to the uncanny: "One of the most uncanny and wide-spread forms of superstition is the dread of the evil eye. There never seems to have been any doubt about the source of this dread. Whoever possesses something at once valuable and fragile is afraid of the envy of others, in that he projects on to them the envy he would have felt in their place" (12). And certainly, this explanation appears relevant in the case of the governess, who seems to believe that Ms. Jessel and Peter Quint desire and envy the innocence the children possess. Her fear of the children "seeing" the apparitions represents her own fear that Miles and Flora will "see" evil, and her fear of the ghosts "fixing" the children or herself with an "evil" eye symbolizes her fear that the apparitions envy the innocence they see (which she believes they wish to compromise).

Therefore, sight in this novel is intimately connected to both power and knowing, with sight essentially symbolizing some sort of loss of innocence. To begin an analysis of the uncanny and the preternatural child-cyborg in *The Turn of the Screw*, then, it may be helpful to start by turning to the first moment in the text that the children “see” an apparition.

This moment occurs as Flora plays by the lake during an afternoon hour on the grounds of Bly. It is interesting that confirmation of the children’s relationships with the ghosts begins with Flora, since Miles, readers learn, had requested to stay inside to read. But what is more interesting than the appearance of the figure of Ms. Jessel to both the governess and Flora, is what happens directly after this encounter. The governess hurries to speak with Mrs. Grose, a fellow servant at Bly. She rushes at Mrs. Grose and cries: “They *know* – it’s too monstrous: they know, they know!” (James 53). When pressed by Mrs. Grose to explain what she means, the governess claims, “Why all that *we know* – and heaven knows what more besides!” which is followed by a short exclamation of “Flora *saw*!” (53). Here, it seems that what has unsettled the governess is that Flora has gained access to information that children typically do not have, and more importantly that Flora has done this through the power of sight.

As the conversation proceeds, the governess reveals that her own fear stems not from seeing the ghosts, but of *not seeing* the ghosts as they play with the children. When Mrs. Grose asks the governess if she is afraid of seeing the ghosts again, she responds: “Oh no; that’s nothing – now!” (55). This statement indicates the governess is indeed discussing her own innocence – since she has seen the ghosts on several occasions, she realizes that her innocence has been compromised and that it is no longer worth worrying about. However, what really terrifies her is that Flora will continue to see the ghosts without her knowing. The governess tells Mrs. Grose that what she is really afraid of is “that the child may keep it up – and that the

child assuredly *will* – without my knowing it” (55). What the governess is primarily concerned with is the protection of Flora’s innocence, which, after taking into consideration the previous discussion of the role of repression in adults’ formations of children, can be viewed as her own lost innocence. Flora is uncanny to the governess since the governess recognizes her own self (the lost innocence she once had and still fetishizes and mourns) within this child.

Next, the governess proceeds to describe what she believes Ms. Jessel wants from Flora. Readers learn that Ms. Jessel “fixes” Flora with her “awful” eyes, and that these eyes were filled with a fury of “intention” (56). When pressed by Mrs. Grose to disclose what this intention might have been, the governess admits she believes the apparition wanted to “possess” Flora. She claims Ms. Jessel’s intention was “to get hold of her [Flora]” (56). At this, Mrs. Grose shudders with uneasiness. The real fear in this exchange is that of losing the child to the supernatural through a form of “possession.” What is uncanny is that Flora’s mind, body, and spirit can become “animated” by a supernatural force that might destroy her innocence.

As the novel progresses, Flora becomes more and more at risk of possession by the apparitions the governess believes the girl sees. In a scene which takes place shortly after the appearance by the lake, the governess realizes that Flora has again been visited by supernatural forces. Although Flora more directly gazes at Ms. Jessel in this scene, she still has not yet become completely “possessed” by the apparition. The governess, we are told, has stayed up late to read, and walks out into the hallway after sensing something “astir” in the house (71). On the landing of the staircase, she encounters what she believes to be the ghost of Peter Quint. Returning to Flora’s bedroom flustered, she realizes that the child’s bed is empty. When she realizes she cannot see Flora around the window-blind, she is frightened, but this fear is assuaged when Flora emerges, rosy and flushed. We realize that Flora is not “possessed” at that moment

by the supernatural, since the governess explains that she “stood there in so much of her candour” (73). Whatever Flora has been looking at out the window (presumably Ms. Jessel) has not compromised her childlike innocence. We can see that Flora still maintains a childish glow about her, since the governess describes her “pink bare feet” and the “golden glow of her curls” (73). What is most interesting about this passage, though, is that the governess seems to feel a sense of rebuke from Flora, which prevents her from scolding the child. Readers are told that Flora “looked intensely grave” (73). This is followed by the governess’ confession that she had “never had such a sense of losing an advantage required” and that Flora cried out “You naughty; where *have* you been?” (73). In this situation, then, it is the governess who has been caught flirting with the supernatural; Flora, although not completely innocent, has not been caught doing anything that would compromise her childlike purity. The governess is drawn to this innocence, since she describes Flora’s body and eyes in a fetishized way. As the child reclines on the governess’ lap, the governess closes her own eyes, “yielding, consciously, as before the excess of something beautiful that shone out of the blue of her [Flora’s] own [eyes]” (74). The governess nearly yields to the beauty of Flora’s innocence, until she asks Flora what the child was looking for at the window, and begins to suspect that Flora is lying (74). The governess’ eyes snap open and a sense of the uncanny is created as she begins to recognize a sense of immorality in Flora. This immorality in the child is both strange and familiar to her, since the innocence the governess wishes to protect is not just Flora’s but also her own lost innocence, and since she has not directly been able to witness the nature of Flora’s encounter with “the other.” For these reasons, the governess is unnerved, and she is not able to maintain her regular patterns of sleep.

Eleven nights later, when the governess finally begins to relax a little and return to her regular sleeping habits, the children again encounter the supernatural. This time, both Miles and

Flora are involved. The governess rises from her sleep at one o'clock in the morning, feeling as if a hand had touched her. She realizes the light has blown out, and admits that she believes Flora is responsible for this (75). After glancing at the window, she realizes that Flora is again gazing out through the open casement, peering at something the governess cannot see. The governess states: "That she now saw – as she had not, I had satisfied myself, the previous time – was proved to me by the fact that she was disturbed neither by my re-illumination nor by the haste I made to get into slippers and into a wrap" (77). Here, the governess is obsessed over the issue of sight. But, she is also concerned about the way Flora has become so absorbed in what she witnesses. The governess tells us that, "Hidden, protected, absorbed, she evidently rested on the sill – the casement opened forward – and gave herself up" (77). It is interesting to look at the specific words James chooses to use in this sentence, since they suggest that Flora is no longer in control of her own self. Phrases like "absorbed" and "gave herself up" indicate that the supernatural has "possessed" the child. It is stated of Flora that, "She was face to face with the apparition we had met at the lake, and could now communicate with it as she had not then been able to do" (77). It is at this moment, then, that Flora becomes a preternatural child-cyborg, since she becomes possessed by the supernatural and is able to communicate with otherworldly forces in a liminal state where the borders between the physical and non-physical erode. She connects with the otherworldly through the sense of sight, and appears uncanny to the governess because the governess recognizes her own "fall" from innocence within this child.

To even further heighten the sense of the uncanny, the narrative presents readers with not just one, but two, preternatural child-cyborgs. As the governess attempts to find another window from which she can see what Flora is looking at, the moon appears over the dark lawn of Bly and reveals a second figure standing outside. This figure, she comes to realize, is Flora's brother

Miles. Just like Flora, Miles has been transfixed by something he gazes at, something in the tower above the window where the governess stands. The governess states, “The moon made the night extraordinarily penetrable and showed me on the lawn a person, diminished by distance, who stood there motionless and as if fascinated, looking up to where I had appeared – looking, that is, not so much straight at me as at something that was apparently above me” (78-79). After realizing Miles is probably gazing at one of the apparitions (presumably Peter Quint), the governess explains as the chapter closes that she feels sick. The sight of Miles as a preternatural child-cyborg, linked to the apparition through his sense of sight, unnerves her greatly.

Later in the novel, more is revealed about the nature of the relationship between the children and the apparitions. The governess, in a conversation with Mrs. Grose shortly after the lawn scene, describes how the children have been absent. She explains to Mrs. Grose that she feels the goodness of the children has been a farce, stating: “...the very things that have delighted, fascinated, and yet, at bottom, as I now so strangely see, mystified and troubled me. Their [the children’s] more than earthly beauty, their absolutely unnatural goodness. It’s a game” (85-86). Of interest, here, is how the governess describes the children’s goodness, since she admits it has both delighted and troubled her. She goes on to say that the children: “...haven’t been good – they’ve only been absent. It has been easy to live with them because they’re simply leading a life of their own. They’re not mine – they’re not ours. They’re his and they’re hers” (86). The children have been absent, then, because they have been distracted or “possessed” by Ms. Jessel and Peter Quint. The apparitions have laid claim on the children’s bodies, minds, and souls. When prompted by Mrs. Grose for an explanation about why the apparitions would want to get to the children, the governess responds that they wish to ply the children with evil (86). Therefore, the governess believes the children have literally become

empty containers, while their “selves” are erased and filled with “evil.” She confesses to Mrs. Grose that she believes Ms. Jessel and Peter Quint can “destroy” the children (87), and that they are trying to “shorten the distance” (87) that separates them.

As the novel continues, the governess explains how she becomes more and more “possessed” by the children each day. By this, she means that the children have control over her since she is obsessed with protecting them. The sense of the uncanny she perceives in the children becomes more and more heightened as well. She explains: “How can I retrace today the strange steps of my obsession? There were times of our being together when I would have been ready to swear that, literally, in my presence, but with my direct sense of it closed, they had visitors who were known and were welcomed” (92). This sensation of familiarity and strangeness that the governess perceives is representative of the uncanny nature of both the ghosts and the children. Eventually, the children’s relationship with the supernatural exceeds the governess’ and she states that: “...whatever I had seen, Miles and Flora saw *more*” (94). These realizations become too much, and she admits that she cannot handle the situation. After an encounter with Miles on the way to church, she states that, “I wanted to get away from him” (102). It is at this point that the children have become alien “others” which are so uncanny that they completely unnerve the governess and shake her resolve to protect their innocence.

This growing tension explodes on the night the governess finds Flora has wandered outside to the lake. The sense of uncanniness in this particular scene is extremely obvious. As the governess listens to Miles playing the piano, she enters a strange state of half-alertness. She describes it as such: “For at the end of a time that under his influence I had quite ceased to measure I started up with a strange sense of having literally slept at my post. It was after luncheon, and by the schoolroom fire, and yet I hadn’t really in the least slept;” (117). The

strangeness the governess is experiencing signals the role the uncanny will play in the passages to follow. After realizing Flora has disappeared out upon the grounds of Bly, the governess and Mrs. Grose set out to look for her. When Mrs. Grose expresses concern that Flora is alone, readers are told the following by the governess: “‘She’s not alone, and at such times she’s not a child: she’s an old, old woman.’ I scanned all the visible shore, while Mrs. Grose took again, into the queer element I offered her, one of her plunges of submission;” (121). It is revealing that the governess chooses to use the word “queer” in the above passage; perhaps what Mrs. Grose is really plunging into here is the uncanny itself. When the two women finally spot Flora upon the grass, the governess explains that she is smiling, but that she is also giving a “performance” (123). And, when the governess cries out that she sees Ms. Jessel upon the shore, Flora does not do what the governess expects her to do. Rather than turn her gaze in the direction of the apparition, Flora turns instead a scolding gaze towards the governess herself. The governess reveals the following about the experience:

I had said shortly before to Mrs. Grose that she was not at these times a child, but an old, old woman, and my description of her couldn’t have been more strikingly confirmed than in the way in which, for all notice of this, she simply showed me, without an expressional concession, or admission, a countenance of deeper and deeper, of indeed suddenly quite fixed reprobation (126).

This passage implies that Flora may have become Ms. Jessel, and that it is Flora’s power of sight that unnerves the governess. Indeed, the governess admits that Flora’s fixed gaze diminishes her innocent beauty. The governess states: “her incomparable childish beauty had suddenly failed, had quite vanished. I’ve said it already – she was literally, she was hideously hard; she had turned common and almost ugly” (128). Because Flora now has access to the supernatural, as

well as to power, knowledge, and sight, her innocent beauty has diminished and the governess sees her only as “ugly.” Flora has challenged traditional notions of childhood, and has refused to be a blank page for adults to project repressed desires upon. As a child with access to experience and knowledge, she is no longer something that can be fetishized and so ceases to appeal to the governess in any way. When Flora perceives that she no longer appeals to the governess, she becomes hysterical and pleads to be taken away. The governess orders Mrs. Grose to remove the child, and then falls weeping onto the ground in an indulgence of grief.

What is most interesting about the novel, though, is that it is not ultimately the preternatural which destroys the children. Flora, although hysterical after the encounter by the lake, leaves Bly with her life intact. And, for Miles, the real threat is not the supernatural, but rather the governess herself and her need to protect him from the world. In the closing scenes of the text, the governess turns to Miles instead of Flora to reassure herself that children really can remain innocent. When the governess tells Mrs. Grose that she can “save” Miles by forcing him to confess to stealing letters, Mrs. Grose asks whether she means by this that she can really save herself (138). As the governess sits with Miles and asks him to discuss the letters, she becomes aware of the fact that Peter Quint’s apparition lurks outside the window. Thinking of the boy she has just grasped in her arms, she states, “It was like fighting with a demon for a human soul, and when I had fairly so appraised it I saw how the human soul – held out in the tremor of my hands, at arm’s length – had a perfect dew of sweat on a lovely childish forehead” (149). What the governess fears is complete possession of Miles by a supernatural force. But, as the scene progresses, it is revealed that Miles can no longer see the apparitions. The governess describes him in the last passage as “glaring vainly over the place and missing wholly, though it now, to my sense, filled the room like the taste of poison, the wide, overwhelming presence” (155). Not

believing that Miles has fully escaped endangerment, the governess tells Miles to forget Peter Quint, claiming: “What does he matter now, my own? – what will he *ever* matter? *I* have you...but he has lost you for ever!” (155). And it is true – the power of the preternatural has been unable to “possess” Miles; but ultimately he is not able to escape possession. Instead of becoming possessed by an apparition, Miles now becomes possessed by the governess, due to her attempts to keep him forever innocent. And, because no child can ever exist in a complete vacuum - because the innocence adults project onto children is simply that, a projection, and not a reality that children can live up to - the book ends and Miles dies. A child’s heart “dispossessed” of all experience, completely blank and innocent and pure, is not a possibility in the everyday world, since no child can live in a complete and utter void. And so, it is not the preternatural which endangers Miles. The fact that he has occasionally been a preternatural child-cyborg is not what ultimately ruins him. Rather, it is the governess’ fear of the preternatural child-cyborg, as well as what she perceives as the “evil” in the supernatural, which results in Miles’ death. He may be a “dispossessed” child, but he is also a child who has suffocated underneath the expectations and projections of repressed adults.

The reason critical interpretations of *The Turn of the Screw* have remained so divided has a great deal to do with James himself, and with his seemingly purposeful use of ambiguity and irony within the text. However, this divide may have more to do with our own repressed anxieties about childhood innocence than with preferred differences in theoretical approaches. For, upon closer examination it appears that each side of the divide has negative implications for childhood innocence. Critics who view the novel as a ghost story inadvertently suggest that the children have lost their innocence to the supernatural in spite of the governess’ attempts at protection (which could imply there are some things adults cannot protect children, or even

ourselves, from). And critics who approach the text through the lens of psychoanalytic theory inadvertently indicate that in some cases, adults can go too far in their attempts at protecting childhood innocence, which may result in the destruction of innocence altogether at the hands of incompetent adults. Neither of these opposing outcomes is favorable for the repressed adult struggling to mourn their own loss of innocence, an innocence which is fetishized and projected onto children.

However, by realizing that James' arguments about childhood innocence are in fact radical – since either interpretation implies that innocence is not something that can be realistically sustained in the everyday world – it is possible to come to some sort of larger understanding about adults' expectations for children. Certainly, by comparing constructions of preternatural child-cyborgs in literature during the Victorian era to depictions of animal-child cyborgs in Romantic literature, it becomes apparent that conceptions of the liminal child-cyborg began to change as the centuries progressed.

Although children were sometimes marginalized during the Romantic movement through textual representations that depicted them as being animalistic, these depictions gradually turned towards themes of the preternatural and the uncanny with the dawn of the Victorian era. It seems likely that these variations were a result of changes in evolutionary and scientific theories, as well as a result of an increasingly industrialized cultural landscape. As Victorians became more and more uncertain about divisions between the human and the animal at the end of the nineteenth century, their romanticization of everything “natural” gradually evolved into a fear of animality, the “unknown,” and the role of spirituality in society. For these reasons, Victorian literature gradually began to deal with conceptions of the supernatural. This is evident in the many Victorian novels that tell stories centered around “ghosts” or “the uncanny,” as well as in

the texts which depict representations of the preternatural child-cyborg as something to be feared. *The Turn of the Screw* is one example of such representations, as is *The Adventures of Pinocchio*. However, *The Turn of the Screw* differs from *The Adventures of Pinocchio* in the sense that it offers a radical reading of the preternatural child-cyborg. Since the real enemy at the end of James' novel is likely the governess, James does not depict preternatural children in a marginalizing way. Rather, his novel forces reconsiderations of how the preternatural child, or any children for that matter, is treated. In this way, James' text may be a generic anomaly. An analysis of *The Adventures of Pinocchio*, though, will provide a better sense of how Victorian texts marginalized children by depicting the preternatural child as undesirable; for in this text there are not only depictions of the uncanny in relation to the preternatural child-cyborg, but also depictions of the laboring child body.

The Uncanny and the Disciplined Body in *The Adventures of Pinocchio*

Carlo Collodi first published *The Adventures of Pinocchio* beginning in 1881 as an Italian serial that targeted adult audiences. At the end of the original tale, Pinocchio dies, after being hung to death for his naughtiness. To make the story suitable for children, however, Collodi added twenty-one chapters to the tale, changing the ending so that Pinocchio lives after experiencing several personal and moral revelations. These chapters from the updated serial were published in 1883 as a completed storybook. The story became popular when it was translated into English in 1892 and was a household favorite by 1911.

The preternatural child-cyborg takes two forms in this story. The first is Pinocchio himself, a character that begins the tale as a block of wood, which is then changed into a puppet, a donkey, a puppet once more, and finally a "real boy." As a result of this last change, Pinocchio leaves behind his puppet body for good. The second example of the preternatural child-cyborg is

the “Blue Fairy,” who first appears as a “dead” little girl that Pinocchio meets when he stumbles upon her house during his travels. This girl with blue hair also experiences many changes throughout the story, being described conflictingly at times as a “dead” child, as a thousand-year-old fairy, as a blue-haired goat, and also as a grown woman.

Since this serial was written at a time when animality was still a concern in Victorian texts, Pinocchio’s story also contains many examples of animal-children or uncanny animals. This is especially noticeable in the characters of the “talking cricket,” and the anthropomorphic snail that help Pinocchio throughout the story, but also in the children who are turned into animals (such as the little boy named Lampwick, a friend of Pinocchio’s who becomes a donkey). *The Adventures of Pinocchio* is therefore an especially pertinent story to consider, since it demonstrates how associations of children with animals were gradually becoming linked to associations of children with the uncanny or the preternatural. It is also a tale in which the laboring child body is a key consideration, since throughout the story we learn how Pinocchio’s problems result from his inability to commit to various disciplinary systems (such as educational study and vocational labor) that other “good” children submit to. Indeed, at the story’s end, Pinocchio and his father Geppetto are able to live happily ever after because Pinocchio experiences a moral transformation in which he learns the importance of family and labor (by making baskets to aid the ailing maternal figure of the fairy), as he becomes, finally, a “real” boy at the story’s end. As Richard Wunderlich argues in “The Tribulations of Pinocchio: How Social Change Can Wreck a Good Story”: “His proper purpose is to become an adult, which means to become aware of the effect he has and can have on others, to take the concerns of others into account, and, if necessary, to assume responsibility, deferring his own needs on behalf of others” (199). The story is an excellent example of how Victorian children and their bodies were

marginalized by nineteenth century authors who used the fictional bodies of children to experiment with and advocate for how children should “act.” It is also an illustration of how fears of the uncanny were becoming linked to fears of non-innocent children in Victorian culture.

The Adventures of Pinocchio begins with a description of a carpenter named Mr. Antonio (nicknamed Mr. Cherry) who hears a voice crying from inside a block of wood. At first Mr. Cherry does not believe that this voice has been coming from inside the wood, and he begins to look around for someone hidden in his room. However, he experiences a terrible fright when he realizes that the piece of wood is crying like a “baby” (Collodi 8). This is the first moment when a sensation of the uncanny is experienced in the story, and it is significant that the fear experienced with this sensation occurs when Mr. Cherry realizes that the noise coming from inside the wood sounds like a crying infant.

Mr. Cherry’s investigation into the matter, though, is interrupted by a man named Geppetto who knocks on the carpenter’s door asking for a piece of wood from which he can make a puppet that will travel with him around the globe and help him earn a living. From the beginning, then, it is apparent that Pinocchio’s body is going to be used for purposes of labor and adult profit. Much like the “real” children in Blake’s *Songs of Innocence and Experience*, Pinocchio will not be able to escape being a child-cyborg working within an adult system of labor. When Geppetto finally “meets” Pinocchio for the first time, he realizes that there are “two wooden eyes looking at him” (11) from the block of wood he is carving into a puppet. Not coincidentally, it is the Freudian eye that best symbolizes Geppetto’s sense of the uncanny here. When Geppetto states: “Naughty wooden eyes, why are you staring at me?” (11), his uneasiness over being watched becomes evident.

Shortly after this scene, Pinocchio runs away, which results in Geppetto chasing him through the streets and landing in prison. Pinocchio returns home to find for the first time the “talking cricket” that acts as his conscience through the rest of the story. Although Pinocchio is at first frightened by this uncanny animal (17), he eventually confesses to the cricket his fear of being sent to school. The cricket informs the puppet that he should “learn a trade” if he doesn’t like going to school, so that he might “earn his bread honestly” (18). Pinocchio responds by throwing a mallet at the cricket and killing him. Not only is the cricket representative of the disciplinary structures of education and labor that Pinocchio is trying to escape, he demonstrates aspects of the uncanny by containing elements of the human in the nonhuman. Indeed, in Chapter 13 the “ghost” of the dead cricket returns. He tells Pinocchio to return home and ignore the temptations of the talking fox and cat the puppet has met upon his travels (who also are examples of uncanny animals). This connection to animals that Pinocchio has through private conversations serves to link the child-puppet to animals in a liminalizing way.

But this marginalizing affiliation between children and animals gradually turns into an affiliation between children and the supernatural or the uncanny as the story progresses. In Chapter 15, Pinocchio meets a “dead” little girl who peers out a window at him as he knocks upon the door of her house in an attempt to hide from malevolent pursuers. The narrator states that, “Without moving her lips she said in a very low voice that seemed to come from another world, ‘There is nobody in this house. They are all dead’” (50). She later states, “I am dead, too” (50). This girl is representative of the preternatural child-cyborg, since she is described as being otherworldly as well as dead. She is an uncanny reminder to Pinocchio that he too, is about to face “death” at the hand of the assassins (the fox and the cat) who are chasing him.

Later, when this child saves Pinocchio from where he had been left for dead hanging from a tree, we learn that the girl is really a “good-hearted fairy, who had lived in that wood for more than a thousand years” (53). In this sense, the child’s body ceases to simply be linked to the preternatural, and becomes an actual supernatural cyborg that blurs the boundaries between the human and the nonhuman. She also becomes a maternal figure that nurses Pinocchio back from the brink of death. But Pinocchio fails to learn any lessons from his near-death experiences and soon sets off again upon a journey that leads him into more questionable situations.

In Chapter 21, Pinocchio is caught stealing grapes from a peasant farmer, who punishes him for this naughtiness by placing a collar around his neck and forcing him to serve as a “watchdog” overnight that must guard against other thieves. The link between childhood and animals here is not subtle, since it is Pinocchio’s own “animalistic” behavior that lands him in this situation, and since he must sleep in a kennel outside and bark like a dog when he catches several thieves in the middle of the night. The peasant, to show his gratitude when Pinocchio later describes how he resisted the bribery of the thieves, rewards him by releasing him and allowing him to act like a boy once more. Therefore, Pinocchio is an example of the animal-child cyborg in this scene since his body becomes linked to animals and treated in an animalistic way. He also remains the preternatural child-cyborg, since he is still an uncanny puppet demonstrating human qualities.

Repeatedly failing to learn any lessons from his experiences, however, Pinocchio soon gets into trouble once more and lands upon the shore of “Busy Bee Island.” Pinocchio realizes that everyone upon the island is constantly working, and states, “...this place will never do for me. I was not born for work” (82). Once again, readers see that Pinocchio does everything within his power to resist the disciplinary systems that adults would have him submit to.

Eventually, he meets the “Blue Fairy” upon a road near the town of Busy Bee, who has now become a grown woman. The woman explains that she will also give him a piece of bread if he will help her carry pails of water to her home. As always, the fairy attempts to bend Pinocchio’s disobedient and lazy nature to the disciplinary system she represents. Eventually, Pinocchio begins to recognize the child fairy’s features within the woman, and he exclaims at one point: “it’s...it’s...you are like...you remind me of...Yes, yes, yes. The same voice...the same eyes...the same hair...You have blue hair, too, just as she had!” (84). This exchange is especially significant because it depicts how children and adults can function as uncanny doubles for each other, since the adult fairy still contains elements of the child fairy. As Pinocchio realizes that the fairy has grown into a woman, he soon expresses his own desire to “grow up” as well. He states, “It’s about time I became a man, like other people” (85). The fairy responds by telling him that the way to become a man is through being a good boy and by going to school. Although Pinocchio confesses he does not like school, he agrees to “turn over a new leaf” (85) and attend it regularly. The fairy informs him that after he finishes school, he must also “choose some profession or trade, whichever you would like...” (86). Pinocchio expresses disdain, but ultimately concedes, claiming, “I will study, I will work. I will do everything you tell me, for I am sick of being a puppet” (87). Pinocchio has been manipulated into thinking that the only way he can exist is by succumbing to normative disciplinary institutions like the educational system and the capitalist labor market.

His commitment to such institutions, though, is short-lived, since he is soon tempted to run away from school. A fight ensues, and Pinocchio is sent to prison (another disciplinary structure that appears repeatedly throughout the tale). Later, he promises the fairy to be on his best behavior, but breaks this promise when he journeys with Lampwick to a place called

“Playland.” Lampwick explains to him, “There’s no school there, no masters, and no books” (106). Pinocchio succumbs to temptation, and stays in “Playland” for five months. At the end of these five months, he suddenly awakens to find that he has begun to turn into a donkey. This metamorphosis is no coincidence, since earlier in the story Pinocchio is told that laziness turns boys into (metaphorical) donkeys. But here the connection between children and animals becomes the most obvious and the most concerning in the entire story. Pinocchio and Lampwick, also now a donkey, are taken to be “sold” at a marketplace, after which they are whipped by their new masters and made to perform before circus crowds. The “lazy child” is here so degraded that he becomes not only nonhuman but he is also subjected to physical brutality and mockery. When Pinocchio becomes lame due to a circus injury, he is sold to a new master that attempts to drown him by tying him to a rope and throwing him over a cliff, in the hopes that his hide can eventually be turned into a drumskin for a village band. The level of brutality and animality in these chapters is so extreme that virtually any act can be performed on Pinocchio’s body by adults, and the suggestion is that he has “earned” such treatment.

After turning back into a puppet in the water, Pinocchio proceeds to attempt to correct his behavior, although he does have several false starts as the story progresses. Eventually, he turns things around, reunites with Geppetto, and begins to behave like a good son by expressing concern for his father’s physical weakness (Geppetto has been surviving on rations inside the belly of a shark). Pinocchio’s first act of submission to disciplinary systems is to agree to work for a man named Giangio in exchange for some milk for his father. He continues this agreement for five months, getting up “before dawn every morning to turn the windlass” (139). He also learns how to weave reed baskets, make a cart for his father, and to refine his study habits by practicing reading and writing in the evenings. Through these acts of labor, Pinocchio proves to

his father, the symbolic paternal figure of the story, that he is loyal and mature. He undergoes one final trial, however, which tests his loyalty to the maternal as well. Pinocchio learns that the “Blue Fairy” is ill, and sells his suit in order that she might buy some food. He also promises to “work five hours longer every day” (140). The fairy appears to him in a dream, and when he awakens the next morning, he is finally a “real” boy. What is interesting to note, here, is the way that Pinocchio must prove his goodness through work and study. In order to truly exist, or to be recognized by adult society, he must succumb to the disciplinary structures of normative society. As he transforms into a “real boy,” Pinocchio also leaves behind his “puppet body” and becomes more human-looking. This moment seems to be uncanny for Pinocchio, since when he sees his new hair and eyes in the mirror, he “no longer knew whether he was awake or asleep with his eyes open” (141). Looking over at his puppet body slumped upon a chair, he exclaims: “How ridiculous I was when I was a puppet! And how happy I am to have become a real boy!” (142). The suggestion is that immature children are “puppets,” pulled in every direction by negative influences that would distract them from “proper” activities such as school and work. Only by heeding the advice of older and wiser figures, can they mature into “real children” who are responsible and supplicant to the systems that adults are dependent upon.

In this way, then, *The Adventures of Pinocchio* exemplifies how Victorian authors often manipulated the bodies of children in their texts, first by marginalizing and dehumanizing children as they linked representations of youth to depictions of the preternatural or the animalistic, and then by using the bodies of young people to work through their own anxieties about mortality, humanness, and the uncanny. Unlike Henry James’ *The Turn of the Screw*, Collodi’s story does not offer children any redemption at the end of the tale outside of the homogenous ideologies adults impose upon children. By presenting children that were liminal,

preternatural, animalistic, and dehumanized, Victorian authors could more easily experiment with child bodies in order to understand their own unconscious obsessions.

As the twentieth century continued to progress, more and more representations of the preternatural child-cyborg began to appear as adults struggled to come to terms with the nonphysical and its relationship to material existence. Children increasingly began to be “othered” as they were depicted as creepy, uncanny, or preternatural in literary texts and popular culture. The preternatural child-cyborg is a phenomenon that still has widespread appeal today, which is evidenced by the rising popularity of preternatural children in films throughout the twentieth century.⁵⁶ But what is especially interesting to consider is how this obsession with the preternatural child-cyborg eventually evolved into an obsession with the robotic child-cyborg near the middle of the twentieth century.

Although adults continue to express anxieties even today about children’s access to the supernatural, or children’s access to information that might corrupt their innocence, these anxieties also took on different forms as new technologies began to develop throughout the twentieth and twenty-first centuries. Gradually, adults began to question the boundaries between the human and the machine, and began to voice concerns over children’s access to technological devices and the informational systems young people could access with greater ease. The subsequent chapter will attempt to explore this evolution through an analysis of robotic child-

⁵⁶For films that associate children with demon or demon possession, see *Rosemary’s Baby* (1968), *The Exorcist* (1973), *Beyond the Door* (1974), *The Omen* (1976), *Amityville II: The Possession* (1982), *Children of the Corn* (1984), *The Gate* (1986), *Five Girls* (2006), *The New Daughter* (2009), *Case 39* (2009), *Insidious* (2010), etc.; for films that associate children with aliens or alien possession, see *Teenagers from Outer Space* (1959), *Village of the Damned* (1960), *Escape to Witch Mountain* (1975), *The Watcher in the Woods* (1982), *E.T.* (1982), *Mac and Me* (1988), *Body Snatchers* (1993), etc.; for films that associate children with witches or bewitchment, see *Little Witches* (1996), *The Crucible* (1996), *Sabrina the Teenage Witch* (1996), *Silent Hill* (2006), etc.; for films that associate children with ghosts and ghostly possession, see *The Innocents* (1961), *The Haunting of Julia* (1977), *The Shining* (1980), *The Sixth Sense* (1999), *The Others* (2001), *The Devil’s Backbone* (2001), *The Ring* (2002), *The Orphanage* (2007), *The Awakening* (2011), etc.

cyborgs in modern and postmodern fiction, like *Brave New World* and Orson Scott Card's *Ender's Game*.

CHAPTER 4

Robotic Babies: An Anatomization of Mechanized Child-Cyborgs in Modernist Texts

...I've got a pretty good idea of what children are, and we're not children. Children can lose sometimes, and nobody cares. Children aren't in armies, they aren't commanders, they don't rule over forty other kids, it's more than anybody can take and not get crazy.

-- Dink Meeker, *Ender's Game*

Martin is Mommy and Henry's REAL son. After I find the Blue Fairy, then I can go home. Mommy will love a real boy. The Blue Fairy will make me into one.

-- David, *A.I. Artificial Intelligence*

The mechanized child-cyborg is an interesting paradox since it signifies simultaneously both innocence and modernity. Its very existence synthesizes the natural with the artificial, emotionality with utilitarianism, and idealism of the past with uncertainties about the future. The robotic child is at once familiar and strange, a ghost inside the machine, an android that feels. It stimulates protective impulses and evokes dread about what is unknown. Its body is often a site for experimentation, a container into which hopes can be placed, and it is a figure that is always, inevitably, uncanny.

While it is difficult to say exactly when the figure of the robotic child-cyborg first emerged, mechanized child bodies began to appear with more and more frequency at the beginning of the twentieth century. Daniel Beekman, in his book *The Mechanical Baby*, argues that even though descriptions of mechanized children existed prior to the twentieth century, these depictions were metaphorical in nature and did not entirely separate children from humanity:

The image of the mechanical child can be traced back at least as far as Nelson in the 1750s. In earlier references, however, the mechanical child was held out metaphorically as an ideal type; much of the advice took into account the child's nature and humanity. It

is only here, in the early twentieth century, that we find a conscious, systematic effort to actually turn the child into a biological machine. (110)

In Beekman's view, the raising of children became a production in the twentieth century, a production sharing many similarities with labor practices of the time. Children's bodies became reflections of the desires and anxieties of people who wanted to "mold" them into trained adults.

But child-care practices were not the only way that children's bodies were beginning to become increasingly mechanized in the twentieth century. Children were also more frequently subjected to disciplinary practices for militaristic purposes, educational purposes, and manufacturing purposes.⁵⁷ They attended schools which were designed to train them to become "proper" citizens, they worked outside the home to support their families, and they were drastically affected by two world wars engulfing the globe. Child soldiers in full military uniform were occasionally featured in print, or depictions of child soldiers sometimes appeared in propaganda. Dada artists began to focus their work on themes of modernization, as well as on the mechanization of the family and the household, and images of techno-organic children in visual mediums became more common.⁵⁸



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⁵⁷ See the historical genealogy of children and cyborgs in Chapter One of this project for further elaboration on historical relationships between children and disciplinary practices.

⁵⁸ For a more elaborate discussion of images portraying the mechanization of the family and the household in Dadaist art, see the discussion of Hannah Hoch in the Introduction of this project.

⁵⁹ This WWI field postcard from 1916 was published in Biro, Matthew. *The Dada Cyborg: Visions of the New Human in Weimar Berlin*. Minneapolis: University of Minnesota, 2009. 191. Print.

It was this growing acceptance, I would argue, of representations of mechanized child bodies in images and popular discourse, which led to the gradual emergence of the robotic child-cyborg. As the disciplining of child bodies became more acceptable in twentieth century society, the mechanized child gradually began to emerge. As children's bodies were devalued in the workplace, in militaristic societies, and in public school systems designed to strip children of any individuality, it became easier to experiment with child bodies in order to explore adult phobias and desires emerging as a result of rapidly changing societal structures. Increasingly, representations of children were used to explore adult concerns. These concerns frequently manifested themselves in two ways in twentieth century representations. The first was through an increase in the use of children to explore utopian or dystopian visions of the future. The second was to construct child-robot figures more often in various texts. This chapter will attempt to explore both of these trends by examining mechanized child-cyborgs in twentieth century texts such as Aldous Huxley's *Brave New World* and Orson Scott Card's *Ender's Game*.

Children and Futurity

In "A Cyborg Manifesto," Donna Haraway writes that, "By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism. In short, we are cyborgs. The cyborg is our ontology; it gives us our politics" (292). Although this is true for human beings of all ages, races, and genders, it is especially true for children of the twentieth and twenty-first centuries. As technologies to aid reproduction and fertility continue to be refined and made more accessible for the general public, associations between engineered children and robotic production have grown more frequent in popular texts.

⁶⁰ This image from 1914 of two German children was published in Friedrich, Ernst. *Krieg Dem Kriege!* Berlin: Freie Jugend, 1924. Print.

⁶¹ This picture from 1944 of Polish *Szare Szeregi* fighters during the Warsaw Uprising can be found here: Świrszczyńska, Anna. "Swir." *Budowałam Barykadę*. Kraków: Wydawnictwo Literackie, 1984. 35. Print.

In Haraway's view, blurring boundaries between the human and the nonhuman is emancipating; in her model, the figure of the cyborg is politically progressive due to the way it favors integration over binary dualisms. In "A Cyborg Manifesto" she writes, "These machine/organism relationships are obsolete, unnecessary. For us, in imagination and in other practice, machines can be prosthetic devices, intimate components, friendly selves. We don't need organic holism to give impermeable wholeness..." (314). While it is true that the breakdown between the human and the machine can be viewed as progressive, the figure of the cyborg often becomes misappropriated or is used to symbolize all that is unknown, feared, or threatening. Technophobic authors, filmmakers, and artists often use the figure of the cyborg in conjunction with discourses about the dangers of industrialization and/or modernized society. When the figure of the cyborg is used correctly it can be politically liberating, but its positive features often become distorted when the cyborg functions to symbolize what is "other" or feared, as it frequently does. As Haraway states in her essay "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others," "A cyborg subject position results from and leads to interruption, diffraction, reinvention. It is dangerous and replete with the promises of monsters" (333). If this is true, associating children with machines can be viewed as either a progressive or a regressive act.

When the bodies of children are used in popular texts to encourage active cooperation between the mechanical and the human, new avenues of communication about the role of technology in society can open up. However, all too often, children become linked to politically regressive significations of monstrous cyborgs in popular discourses. Since children and cyborgs are both identities which are frequently seen as liminal or marginal (because they exist outside the realm of "normative" adult human experience), linking children to constructions of cyborgs

can be doubly marginalizing. These associations between children and cyborgs, or between “the Child” and the robotic, can have detrimental effects on real children if they are not made responsibly. A brief analysis of texts featuring engineered or robotic child-cyborgs that are in some ways politically regressive may illuminate how such associations can be problematic.

As societal awareness about the increasing dangers modernity posed to children began to rise at the end of the nineteenth century - with the help of socially satirical publications by authors like Charles Dickens, Francis Hodgson Burnett, and Mark Twain - fears about the consequences of industrialization for children became a common topic of discussion in twentieth century literature. Also, since children were beginning to be seen as a means of changing the future for the better, or as a means of “rescuing” modern society from its own absurdity, they were often also presented in conjunction with discussions of utopian or dystopian societies. This trend of associating children with utopian hopes for the future, or of linking children to social critiques of modern society, gradually began to occur with more and more frequency as the twentieth century progressed. Child bodies increasingly began to become sites of experimentation for adult authors, who used them to speculate about the future of modern society in literature, visual mediums, or other popular texts.

An examination of early literature from the twentieth century reveals that adult authors often used children in conjunction with constructions of utopia. Published in 1911, *Peter and Wendy*, for instance, romanticizes the island of Neverland as an idyllic utopia within which one never has to “grow up.” Writing this book allowed its author, J.M. Barrie, to envision a world in which adult constraints on behavior were temporarily “lifted” so that children could behave as they wished, and some might argue that Neverland afforded more flexible lifestyles to its inhabitants than the Darlings’ London society had offered. Similarly, Edith Nesbit’s *The Magic*

City (1910) presents two children who escape into a magical world called “Polistarchia.” Once inside this land, step-siblings Philip and Lucy learn to reconcile their differences and cooperate to free the capital of Polistarchia from a character named Pretenderette. These two novels allowed adults to construct alternative societies in which different identities and different ways of relating could be explored. And, in other later texts of the twentieth century, this trend continued to thrive. For example, texts such as *The Chronicles of Narnia* by C.S. Lewis published in 1950, used children to explore utopias in relation to spiritual transformation. Also, many feminist science fiction novels of the 1980s and 1990s conflated discussions of childhood with discussions of matriarchal or patriarchal societies.⁶² More recently, films such as *Waterworld* and *Children of Men* have explored the way that societies sometimes pin their hopes for a utopian future upon children. In most utopian texts, children are depicted as “savior figures” who “teach” adults alternative ways of being. This is probably not a coincidence, as Peter Krafti hints in his essay “Utopia, Childhood, and Intention”:

Whether figured as the axis of modern domesticity (Ariès 1967), or as the manifestation of a society in “crisis” (Scruton 1997), childhood in all its incarnations has played critical — if ambiguous — roles in the utopian imagination. In Western cultures, one may discern a particular resonance between cultures of childhood and utopian impulses. For instance, notions of nostalgia, community, play, romantic authenticity and rarefied creativity are shared by many Western visions of both childhood and utopia. (69-70)

And perhaps these connections between children and creativity, community, and nostalgia are in part the reason that so many dystopian novels with child characters appear throughout the twentieth century as well.

⁶² See, for example, the novels of Ursula K. Le Guin, Doris Lessing, Margaret Atwood, and Octavia Butler (all arguably evolutions of earlier feminist science fiction texts such as Charlotte Perkins Gilman’s 1915 *Herland*).

If the utopian child protagonist represents a certain hope in futurity, the dystopian child likewise represents either some disillusionment about present society or some anxiety about what the future may bring. Krafti states, “Children and young people — whether babies or teenagers — have been represented for decades as the “future” of society. Conversely, they have also been the locus of anxieties about the future of society (some kind of lost hope)” (75). In twentieth century texts, these anxieties often focus on themes of industrialization, technology, and modern alienation. This becomes especially apparent when examining the sheer volume of robotic children, genetically engineered children, or cloned children in popular dystopian texts of the twentieth century. And, recognizing the emergence of the mechanized child-cyborg at the turn of the century reveals how societal fears about spirituality, embodiment, and humanness in the nineteenth century gradually morphed into fears about immortality, technology, and artificiality in the twentieth century. It is not purely coincidental that depictions of the preternatural child-cyborg gradually began to evolve into obsessions with the mechanized child-cyborg as Victorianism slowly died away and turned into the Modernist era.

Mechanized Children and *Brave New World*

Indeed, many dystopian novels, such as *Brave New World* by Aldous Huxley, force readers to confront their own underlying anxieties about industrializations of the body, consumerism, and conceptions of perfection, while prominently featuring child characters. Although Huxley’s novel presents a seemingly utopian society at the most superficial level, his text can be considered dystopian, since it is deeply satirical of the community that it presents, in both its tone and in its closing scenes. Huxley’s masterpiece contains many examples of the mechanized child-cyborg, since its opening pages describe a futuristic “World State” (London in 2540 AD), in which children are genetically engineered in a factory called the “Central London

Hatchery and Conditioning Centre.” *Brave New World* is an interesting example of the mechanized child-cyborg, since all of the children in the novel are genetically and behaviorally customized in the hopes of producing a more “stable” society. Cyborgian children are constructed in the text through: its themes of production and/or consumerism; its themes of social conditioning, physical and mental conditioning, and perfection; its themes of sexuality and/or fertility regulation; and finally, its dehumanizing depictions of children.

Before beginning an analysis of these themes and depictions, though, it is important to keep something in mind. Although Huxley is primarily critiquing the society he presents to readers, in some ways he is also using child bodies in order to experiment with complex philosophical issues. Even though he appears to have written *Brave New World* for the purposes of social satire, he is also inadvertently linking children to themes of consumerism, artificial production, roboticism, and perfection in a way that could potentially normalize such associations. While it is not the purpose of this project to denigrate or vilify Huxley for what is, primarily, an insightful critique of modern society, it is important to trace the way that children and young-adults became increasingly linked to themes of technophobia, roboticism, and dystopian disillusionment, in order to better understand how child bodies were gradually to become more susceptible to experimental manipulation in twentieth century literature.

Brave New World begins with an open acknowledgement of the relationship between genetic engineering and consumer-driven production. The story opens in the “Fertilizing Room” of the “Central London Hatchery and Conditioning Centre,” and the narrator describes this room in the following way: “Millions of identical twins. The principle of mass production at last applied to biology” (Huxley 7). Children are engineered in these hatcheries and conditioning centres through a complicated process of assembly-line fertilization, pre-natal conditioning, and

behavioral habituation. Huxley blatantly compares the production of these children to industrialized production practices, through his descriptions of the Centre's conveyer belts and/or machinery that move the test-tube babies through the various rooms, and through the numerous references the characters make to Henry Ford (a figure they deify). In this way, biology becomes linked to mechanical production, and child bodies are presented as manufactured products. This is apparent, for example, in the descriptions of "Bokanovsky's Process." This process is described as a form of cloning in which one fertilized egg is split into multiple genetic copies of the original. The Central London Centre and the citizens of the "World State" privilege such quantified production, which is apparent in the narrator's description of the Bokanovksy Process. He states, "Making ninety-six human beings grow where only one grew before. Progress" (6). Reproduction has become divorced completely from personal connection, and quantified results are what constitute "progress." This production mentality is also evident in the descriptions of parenting throughout the book. The word "parent" has become so obsolete that the students exploring the Conditioning Centre can no longer remember what the word means. When the Director of Hatcheries and Conditioning asks the students to define the word, readers see that, "There was an uneasy silence. Several of the boys blushed" (23). Reproduction now consists of manufactured production instead of personal parenting. Indeed, personal connection is now so far removed from reproduction that women are paid "six months' salary" for ovaries that they never get to see develop (5).

This financial compensation is also an example of the consumerist themes within *Brave New World*. In addition to critiquing modernity's obsession with industrial production, Huxley's novel is also a critique of modern society's commodification of childhood. Descriptions of the "Embryo Store" are particularly representative of this, as even the name of the room itself

suggests. When the students touring the factory with the Director descend into the Embryo Store with an employee of the Centre named Mr. Foster, readers are given a description of this room by the narrator. Once in the darkroom, with its red artificial lighting which protects the embryos from daylight, readers learn that the bottles containing the babies had “glinted with innumerable rubies” (11). This metaphor comparing the children to a priceless jewel is suggestive of the way these infants have been commodified. Likewise, Mr. Foster is asked by the Director to “give them a few figures...” (11) about the tiers of racks containing the embryos inside the gallery. The sheer vastness of the room, combined with Mr. Foster’s figures and the descriptions of the various “levels” of the galleries, all serve to suggest that the children in this room are being displayed on racks like objects in a store. And indeed, several chapters later, this theme of consumerism and commodification is again picked up when the Director takes the students to the garden outside the Conditioning Centre. One particularly revealing moment occurs when the Director describes the way that even the games of “World State” children are designed so as to encourage consumerist tendencies. He states:

...strange to think that even in Our Ford’s day most games were played without more apparatus than a ball or two and a few sticks and perhaps a bit of netting. Imagine the folly of allowing people to play elaborate games which do nothing whatever to increase consumption. It’s madness. Nowadays the Controllers won’t approve of any new game unless it can be shown that it requires at least as much apparatus as the most complicated of existing games. (31)

This statement highlights the way that the “World State” is actively conditioning children to become consumers as they age, and is yet another example of how children become linked to conceptions of consumerism in literature written by adults.

These consumerist themes become modified and refined slightly in Huxley's depictions of social conditioning in *Brave New World*. Not only are children trained to become "proper consumers" in Huxley's new London, but they are also manipulated to become obedient laborers according to class designations. All of the preparations that the Centre enacts upon the children are designed to separate them into various class categories, to help them to develop the skills necessary to their class-specific trades, and to mentally condition them to enjoy the jobs they are destined to acquire. Social stability in the "World State" is predicated upon two principles: duplication and class segregation. For instance, the Director explains to the students in the Fertilizing Room how Bokanovsky's Process results in social stability. He states, "Ninety-six identical machines!" and then follows this by claiming that, "You really know where you are. For the first time in history....If we could boganovskify indefinitely the whole problem would be solved" (7). In this society, then, social stability is contingent upon having identical twins working in the same environment. Through duplication, normality is achieved, and stability is acquired. Interestingly enough, these references to duplication also subtly evoke Freudian conceptions of the uncanny. The eerie atmosphere of the factory is all the more disturbing for Huxley's descriptions of the "twins" working the machine in every room. Particularly in the Embryo Store, in which the workers are described as being "dim red spectres of men and women with purple eyes and all the symptoms of lupus" (11), the sense of uncanniness in the "World State" is all too present. This sense of uncanniness operates in conjunction with the disconcerting depictions of children being "preconditioned" (in rooms like the "Social Predestination Room"), creating a sense of unnaturalness in the Conditioning Centre.

This unnaturalness is also highlighted by the class segregation that occurs in the Embryo Store. Throughout the novel as a whole, there are repeated references to the way individuals are

segregated according to class as babies in order that they become better workers and consumers as adults. For instance, Mr. Foster explains: “We also predestine and condition. We decant our babies as socialized human beings, as Alphas or Epsilons, as future sewage workers or future...Directors of Hatcheries” (13). Therefore, babies in the Centre are segregated according to one of several class categories, including “Alpha,” “Beta,” “Gamma,” “Delta,” or “Epsilon,” the latter being the lowest caste. This caste segregation is a critical factor in creating social stability within the “World State.” Mr. Foster explains that simply fertilizing and hatching the embryos is not enough to maintain stability, for he claims “any cow could do that” (13). Rather, the workers of the factory must instead regulate what kinds of treatments the various embryos get, so that the children grow into adults well-suited for certain tasks. Readers are told that all embryos receive a nutrient supplement of “blood surrogate” via a revolving pump, and that sometimes workers reduce the number of revolutions for embryos assigned to the lower classes. As the Director informs the students: “...an Epsilon embryo must have an Epsilon environment as well as an Epsilon heredity!” (14). By separating members of the “World State” into various groups according to class, the state is able to ensure not only social stability but also that individuals are well-prepared for their jobs and that they enjoy these jobs. As the Director tells the students when they leave the Embryo Store and head towards the heat-conditioning tunnels, “...that is the secret of happiness and virtue – liking what you’ve got to do. All conditioning aims at that: making people like their inescapable social destiny” (16). Of course, readers realize that this destiny is anything but inescapable.

The fact that the social “destinies” of the genetically-engineered babies are constructed becomes even more apparent after considering that the babies are subjected to disturbing physical conditioning as they progress through the various rooms of the Centre. For instance, the

heat-conditioning tunnels expose the children to a combination of cold temperatures and X-rays that teach them to dislike the cold so that they become workers who migrate to the tropics. In addition, the infants are inoculated against various diseases with long syringes. When one of the workers, Lenina, is asked by Mr. Foster what she is doing, she nonchalantly explains: “Oh, the usual typhoid and sleeping sickness” (17). These inoculations are another way of preparing the children for their future careers, as are the chemical treatments and the balancing treatments that the children also receive in the tunnels.

Another type of preparation that the children undergo involves mental, rather than physical, training. Through a process called “hypnopaedia,” the babies are conditioned morally and socially. During this procedure, which is a form of “sleep-teaching,” children are made to listen to voices coming out of speaker-like boxes while they sleep in State Conditioning Centres. Although the Director discloses to the students that hypnopaedia fails to work well in terms of intellectual education, he admits that it is frequently employed for the purposes of moral indoctrination. Of moral education he states that it, “ought never, in any circumstances, to be rational” (26). And, of course, hypnopaedia is also utilized for class discrimination as well. When the students enter the dormitories, where children sleep upon rows of cots, they hear the voices from the speakers indoctrinating the sleeping children with ideas about children from other classes. For instance, when the Director turns on the trumpet-like loudspeaker, a voice recites: “I don’t want to play with Delta children. And Epsilons are still worse. They’re too stupid to be able to read or write. Besides they wear black, which is such a beastly colour. I’m *so* glad I’m a Beta” (27). In this way, then, the children are unconsciously trained to associate with members of their own class or the classes above them. These “suggestions” whispered to the children as they sleep become such a deep part of their psyches that they are never able to

realize that the suggestions are not their own thoughts. The Director hints at this when he states, “Till at last the child’s mind *is* these suggestions, and the sum of the suggestions *is* the child’s mind” (29). This mental conditioning in relation to class is yet another way that *Brave New World* comments upon the relationship between childhood and themes of perfection.

Throughout the text, Huxley repeatedly stresses how important it is to rid the children in the “World State” of any unintended abnormalities. The goals of the hatcheries and conditioning centres primarily consist of creating perfectly molded children, whose very imperfections are flawlessly designed. This becomes apparent when considering the way the embryos are pampered as they move along the assembly line and how they are treated in terms of their play and sexuality. For example, ovaries with eggs that show any trace of “abnormality” are removed from the conveyer belt (5), and all embryos receive the aforementioned “blood surrogate” as well as supplements of hormones like “thyroxin” and “pituitary” (12). This is to ensure that each embryo reaches its fullest capabilities, or at least the fullest capabilities its class designation allows for. Other references to perfection are also found elsewhere in the book, particularly in the descriptions of the children’s play. In the era of the “World State,” sexual role playing is encouraged and is considered “normal.” Children are taught at a young age to engage with each other in erotic play, and if they refuse, they are considered “abnormal.” The Director explains to the students when they reach the garden outside the Centre that in the Pre-Ford era, adolescents had been taught to suppress their sexuality and that the results of such suppression had been “terrible” (33). The students have difficulty understanding such suppression, since they have been taught to believe that erotic play is both necessary and normal. When a little boy standing nearby in the bushes near the students refuses to engage in a “rudimentary sexual game” with a little girl, he is sent away at once to see the Centre’s Assistant Superintendent of Psychology,

who must see if there is anything “abnormal” about him (31-32). In this way, anything that falls outside the range of what the state has deemed “normal” gets excluded from society altogether. Only perfect individuals (even if they contain imperfections considered acceptable for their caste) are allowed to thrive in the “World State.” Thus, Huxley’s novel creates an association between perfection and childhood, and implies that children in the “World State” are in some ways the gateway to perfection.

Just as many other novelists do, Huxley also creates associations between children, innocence, and sexuality in his text. Traditionally, childhood innocence has been eroticized in literary texts (a custom first initiated by Romanticist artists in the eighteenth century). In some ways, Huxley continues this tradition. Children in this text are not only encouraged to play erotic games with each other but are also asked to sit through “Elementary Sex” training courses (27). The scene in which the little boy refuses to play erotically with the little girl in the garden conflates conceptions of innocence, sexuality, and experience, and also indicates that children may be acceptable sexual objects. Themes of sexuality are also brought up in the novel in relation to discussions of fertility. The children are subjected to forced sterilization processes as part of the Centre’s attempts to create social stability. We are told by Mr. Foster that the Centre allows: “...as many as thirty per cent of the female embryos to develop normally. The others get a dose of male sex-hormone every twenty-four metres for the rest of the course. Result: they’re decanted as freemartins – structurally quite normal (except...that they *do* have the slightest tendency to grow beards), but sterile” (13). Therefore, the bodies of these children are not only subjected to rigorous conditioning practices, their very sexuality is manipulated by the “World State.”

In these ways, then, children in *Brave New World* are dehumanized as their bodies and minds are controlled by adults and by the “World State.” Such dehumanization becomes especially apparent in the many degrading metaphorical associations between children and other objects in the text. In the nursery scene, for instance, the babies which are brought into the room are presented upon “dumb-waiters.” When they are again taken away, the narrator explains that, “Still yelling, the khaki babies were loaded on to their dumb-waiters and wheeled out, leaving behind them the smell of sour milk and a most welcome silence” (22). Here, the children are not only dehumanized, they are also presented as anonymous objects to be consumed. And in the previous scene, the narrator describes how the children are subjected to torture and electrocution as they are taught to fear nature and books: “The screaming of the babies suddenly changed its tone. There was something desperate, almost insane, about the sharp spasmodic yelps to which they now gave utterance. Their little bodies twitched and stiffened; their limbs moved jerkily as if to the tug of unseen wires” (21). Not only are these children subjected here to arguably unethical training practices, the babies are also compared to puppets being tugged by unseen wires. Huxley’s novel contains many more examples of children being dehumanized through disciplinary training practices or through associations which compare these children to nonhuman objects.

Although Huxley may not have intentionally set out to marginalize children in his work (since he was, after all, attempting to critique modern society and mechanized reproductive practices in *Brave New World*), the novel in many ways normalizes depictions of dehumanized children. By linking children to technology, consumerism, disciplinary practices focusing on perfection, and themes of sexuality and animality, Huxley’s novel suggests that the body of the mechanized child-cyborg can be used as a site for adult experimentation or social critique in

science fiction. Furthermore, an analysis of Orson Scott Card's *Ender's Game* can now reveal how this trend continued well into the twentieth century as adult authors shifted their focus to robotic children. While novels like C.J. Cherryh's *Cyteen* (1988) and films such as *Never Let Me Go* (2010) would continue to examine the links between children, genetic engineering, and production, novels like *Ender's Game* would begin to make the links between children and robots more of a central focus in popular texts.

Robotic Children and *Ender's Game*

The trend of linking children to depictions of robots, androids, and cyborgs, or of portraying the child body and the mechanized body as interchangeable in literary and popular texts, certainly originated prior to the Cold War. Associations between robotic servants and child characters had undoubtedly existed in literature since the end of the 1920s, with many novels featuring robotic servants that could “take care” of human children as surrogate parental figures.⁶³ But after the escalation of the Cold War and the Cuban Missile Crisis in the 1960s, a notable increase in stories and novels featuring android or cyborgian children began to occur. With publications such as Anne McCaffrey's *Brain & Brawn Ships* series and “The Ship Who Sang” (1961), Brian Aldis' short story “Super-Toys Last All Summer Long” (1969), David Gerrold's *When HARLIE Was One* (1972), James Tiptree Jr.'s “The Girl Who was Plugged In” (1973), and Seth McEvoy's *Not Quite Human* series (1985), the boundaries between children and robots began to become more and more permeable. But with the publication of Orson Scott Card's short story and eventual novel *Ender's Game* (in 1977 and 1985 respectively), the link between children and robots would become further cemented in cultural legacy.

⁶³ See “The Psychophonic Nurse” (1928) by David H. Keller, “Strange Playfellow” (1940) by Isaac Asimov (which features a robot known as “Robbie” in later Asimov collections like his 1950 *I, Robot*), or “Nanny” (1955) by Phillip K. Dick

Card's novel presents a young boy, Ender Wiggins, who becomes both a literal and a metaphoric mechanized child-cyborg in the novel and its subsequent series. *Ender's Game*, like *Brave New World*, is a dystopian text set in a futuristic landscape. Ender Wiggins, much like the children in Huxley's novel, is a character that becomes a locus for the hopes of an entire planet, since he is selected to attend a militaristic training program which will prepare him to save the Earth from an invading alien species known as the "buggers." In much the same way that the children in Huxley's novel become linked to technology, disciplinary conditioning, dehumanizing treatment, and conceptions of perfection and heroism, Ender can either be read as a victimized figure or a heroic character. In many ways Card seems to be critiquing the way that characters in the novel (like Colonel Graff) manipulate Ender in order to achieve their goals; but in many ways Card can also be read as an author who manipulates Ender's body himself in order to experiment with ideas about morality and amorality.

In the opening scenes of the novel, it is apparent that the link between technology and children has become literal in this text, since readers learn that Ender is having a computer monitor removed from his brain. Although Ender is a human boy, he is presented as a cyborgian figure before he is even thoroughly introduced to readers. From the start of the narrative, Ender's body has become a robotic-human hybrid and his very life is endangered by this fusion. Ender's doctor, after removing the monitoring device from Ender's brain, states, "We could have switched him off, do you realize that? We could have unplugged his brain for all time" (Card 4). Although Ender escapes a lifetime of surveillance because of the removal of this device (the monitors are cameras through which the military can scrutinize the actions of potential child recruits), readers are unable to escape the suggestion throughout the novel that Ender is in many ways robotic.

Much of this ambiguity about Ender's "humanity" stems from the calculated efforts of the author. As Card constructs Ender's character, he uses Ender as a vehicle for questioning many philosophical and moral issues (as do the adult characters in the text itself). Ender Wiggins is repeatedly presented as a morally and emotionally ambiguous boy, and readers are never completely sure whether this is the fault of the adults who help to rear him or whether it stems from Ender's own innate character. Regardless of whether or not Ender's aggression in the novel comes from his own genetic history (his brother, Peter, is also portrayed as aggressive) or from the intervention of adults in his affairs (adults encourage him to battle and control his siblings and peers), Ender becomes a site upon which adults can interrogate what it means to "be human." These interrogations focus on issues of aggression and animality, on conceptions of death and/or war, and on the adult quest for perfection and salvation through "the Child."

Card presents Ender as an aggressive and animalistic child that is also simultaneously a victim of his environment. Ender repeatedly finds himself, whether from his own actions or the calculated manipulations of adults, in situations that force him to make difficult ethical decisions. And, interestingly enough, many of these decisions often involve other children. For example, at the start of the novel Ender encounters a group of male schoolmates that harass him as he heads home for the afternoon. Feeling as if he is being forced to make a decision about whether to continue letting his peers harass him or whether to put an end to the harassment through physical intimidation and violence, Ender decides to kick another boy named Stilson to the ground. The narrator tells us that, "Ender knew the unspoken rules of manly warfare, even though he was only six. It was forbidden to strike the opponent who lay helpless on the ground; only an animal would do that. So Ender walked to Stilson's supine body and kicked him again, viciously, in the ribs" (7). Shortly after, when the other boys have gone, Ender cries alone in the hallway. It

remains uncertain whether Ender is innately violent or whether he simply felt he needed to deter future fighting, but more importantly, Ender also becomes a means of questioning what it means to be “manly” or “ethical” in combat. Similar situations reoccur in the novel when Ender breaks Bernard’s arm on the shuttle (33), when Ender fights the Giant in his virtual game (65), and when he stomps upon a classmate during a battle simulation session (115).

Ender’s willingness to make these difficult decisions is in part why Graff and the other soldiers of the International Fleet (the human army) select Ender to participate in the Battle School’s training program. They decide that Ender has the potential to be a strong leader, and so they take him away from his parents and begin to subject him to many rigorous disciplinary training programs. These disciplinary conditioning treatments are designed to both test and mold Ender into a future commander, but we must ask ourselves whether some of these practices are ethical. Ender is forced to participate in physical conditioning programs, mental conditioning programs, and even his “play” becomes regulated. These training practices are designed to “perfect” Ender, and to shape him into the ideal military commander that can lead humanity to salvation in their war against the buggers. But these imposed conditioning treatments have many dehumanizing results, for both Ender and other children, and this dehumanization could likely have consequences upon not only future constructions of childhood but also upon real children.

Many of the physical disciplinary practices that Ender is forced to undergo, for instance, suggest that children’s bodies can become legitimate sites for experimentation. In addition to the brain surgery that Ender must undergo for the implantation and removal of his monitoring device, the boy must also engage in various training exercises at the Battle School he is taken away to live at. Life at the school consists of daily lessons in mathematics, computers, and military history, but Ender is also exposed to rigorous physical drills in the battleroom. The

battleroom is a place for war games and battle simulation, in which children are organized into armies that fight mock battles. In these drills, children literally become militaristic cyborgs, since they don futuristic uniforms and fight each other with technologically advanced weapons in zero-gravity environments. To get into their lockers, the children have to have their hands and voices “coded into” a computer system (39). They are arranged into groups based on their uniform colors, and are told when to eat, when to study, and when to participate in drills. The uniforms the boys have to wear are similar to spacesuits, “complete with helmet and gloves” and light devices similar to laser guns (39). These futuristic space uniforms, along with the “coding” of various parts of their bodies, serve to suggest that the children are some sort of alien “others,” futuristic cyborgs that are part human and partly nonhuman. Likewise, militaristic mentalities and disciplinary exercises are encouraged among the children, and their bodies are subjected by adults to various training exercises and daily army drills. Frequently, the boys wound or injure each other during these training exercises, which is acceptable in the eyes of the adults monitoring their activities. Ender describes some of the physical training the boys undergo, which is designed to prepare them for war. He explains that the boys learn: “The ability to make a soft landing and absorb most of the shock. Accurate flight. Course adjustment using the frozen soldiers floating randomly through the room. Rolls, spins, dodges. Sliding along the walls – a very difficult maneuver and yet one of the most valuable, since the enemy couldn’t get behind you” (84). While the boys participate in these activities, the adult leaders of the school typically try to remain uninvolved. The lack of interest the adults seem to have in the rigorous exercises and brutal confrontations stems from the fact that these adults are attempting to construct the perfect child soldier. Graff, the director of training at the Battle School, explains the relationship between himself and the children:

My job is to produce the best soldiers in the world. In the whole history of the world.

We need a Napoleon. An Alexander. Except that Napoleon was lost in the end, and

Alexander flamed out and died young. We need a Julius Caesar, except that he made

himself a dictator, and died for it. My job is to produce such a creature, and all the men

and women he'll need to help him. Nowhere in that does it say I have to make friends

with children. (34)

The rigorous lifestyle of the Battle School and the physical discipline it requires are presented ambiguously, as both necessary and yet controversial, even by the adults within the school who occasionally question their own methods.

In addition to the way the children's bodies are molded into child soldier cyborgs in daily drilling exercises, the children's play is also designed to improve their performance in battle. In this way, *Ender's Game* echoes many of the same themes found in *Brave New World*. Much as children's play in the "World State" is monitored and manipulated in order to encourage "proper" sexuality and role-playing, the Battle School monitors children's play in order to ensure that they become better soldiers. During the evenings, when Ender is no longer obligated to participate in army drills or organized activity, he frequently returns to the battleroom for "free play" or he heads to the upper-level of the school to refine his battle skills in the game room. In the game room, Ender can engage in holographic games or play with two-dimensional videos, and most of these sorts of games require that the children play against computers. Ender at one point expresses his regret that he cannot play naturally with other children: "It was the other boys he wanted to play. The boys who had been so trained by the computer that even when they played against each other they each tried to emulate the computer. Think like a machine instead of a boy" (46). The children of the Battle School have no free time simply to play naturally, and

associations between children and computers continue to develop in the text. Further evidence for such associations can be found in descriptions of Ender playing with the school computer in his bunk bed, as he tries to beat the simulated “Giant” who is his opponent. This game, readers learn, “...was a shifting crazy kind of game in which the school computer kept bringing up new things, building a maze that you could explore...He had lots of deaths but that was OK, games were like that, you died a lot until you got the hang of it” (62). The game occasionally requires Ender to “murder” other virtual characters, asking him to slay the Giant or even to drown a small group of children. These challenges result in mental devastation for Ender, which is apparent when the narrator summarizes Ender’s thoughts after he slays the Giant by digging a hole into its eye: “This was supposed to be a game. Not a choice between his own grisly death and an even worse murder. I’m a murderer, even when I play” (65). By manipulating Ender as he plays with the computer, the adults in the text attempt to strengthen not only the boy’s physical expertise but also to mentally prepare him for war.

By combining mental disciplinary practices with physical ones, the commanders at the Battle School aspire to create the perfect military leader. In reality, they are using Ender to experiment with their own phobias about death in relation to combat or social isolation, in a way that is ultimately harmful to Ender’s mental health. The personnel at the Battle School seem to realize this, since one of the commanders states, “I think we’re going to screw him up” and a second commander responds by stating “Of course we are. It’s our job” (10). The implication, then, is that Ender can only become mentally prepared for leading his future troops into battle by facing the usual fears human beings often have. One way that the leaders of the Battle School try to mentally prepare Ender is by exposing him repeatedly to death in simulated combat. Not only must Ender drown or deface the bodies of the characters he plays against in the virtual

world of the computer, he must also himself undergo many brutal torture simulations that remind him of his own mortality. Occasionally he gets “crushed” to death beneath a landslide or becomes paralyzed and cut open along the length of his spine by the Giant (62-64). At one point, he must stick his head into a large glass of acidic liquid that dissolves away his face, catches him on fire, or drowns him (63). Each of these scenarios has been crafted carefully by the leaders of the Battle School to expose Ender to the possibility of death during combat and to remind him of his own mortality. These mental challenges, though, begin to take an emotional toll on Ender as the novel progresses. He states, “Perhaps it’s called the end of the world because it’s the end of the games, because I can go to one of the villages and become one of the little boys working and playing there, with nothing to kill and nothing to kill me, just living there” (74). In this way, even the play of children in the Battle School becomes a means of mental manipulation which has extremely strong consequences for Ender. Another example of mental training that Ender must undergo is forced isolation. Repeatedly throughout the text, the military commanders at the Battle School purposefully sabotage Ender so that he is excluded from his peers, as the following exchange between two commanders demonstrates:

‘Oh good. He has to be a genius and nice, too.’

‘Not *nice*. Nice will let the buggers have us all.’

‘So you’re going to isolate him.’

‘I’ll have him completely separated from the rest of the boys by the time we get to the School.’

‘I have no doubt of it. I’ll be waiting for you to get here. I watched the vids of what he did to the Stilson boy. This is not a sweet little kid you’re bringing up here. (27)

The isolation obviously takes a large toll on Ender's emotional well-being, since he often expresses resentment for the sense of aloneness he feels. Shortly before Ender has to leave his friend Ali behind, when he is promoted to the "Salamander Army," he confesses: "I wanted to learn what it was like to have a friend" (69). As the novel progresses, Ender becomes more and more haunted by thoughts of death and the forced isolation the commanders impose upon him. But up until the end of the novel, the commanders continue to use Ender to experiment with the limits of military training, and to question what roles death and isolation play in actual combat. By encouraging Ender to beat all odds and become a respected leader who is not afraid of dying or of losing friends by making difficult decisions, they produce what they believe is the "perfect" child soldier.

Thus, conceptions of childhood and perfection are intertwined in *Ender's Game* just as they are in many adult novels that feature child characters. Although Ender seems entirely divorced from traditional conceptions of childhood innocence, he is still closely tied to ideas of perfection and salvation. The "perfect child" in this novel may have nothing to do with spiritual purity or innocent wholesomeness, but there is still a belief that children must meet some sort of imposed ideal in order to be worthy of adult affection – in Ender's case, he must become the perfect warrior, the savior figure who can lead humanity to political victory. In order to obtain this sort of perfection, though, the military commanders believe they must sacrifice Ender's own health for the good of the planet. Graff tells Ender: "Maybe you'll break down under the pressure, maybe it'll ruin your life, maybe you'll hate me for coming here to your house today. But if there's a chance that because you're with the fleet, mankind might survive and the buggers might leave us alone forever – then I'm going to ask you to do it" (25). These sentiments seem to echo the themes of a great deal of apocalyptic literature, since many science fiction novels

discussing utopias or dystopias often seem to rely on the figure of “the Child” for deliverance or salvation. In a curious sort of way, then, children who are sacrificed for the greater good must pay two costs. First, they must forfeit personal happiness and health. Secondly, they must also suffer the anxiety and guilt that goes along with realizing a whole society is depending on their success for survival. Indeed, the adult characters in *Ender’s Game* seem to realize the price they are asking Ender to pay, although they rarely seem to waver from their larger goals. Anderson, a military commander, says to Colonel Graff that, “We’re going to make him [Ender] the best military commander in history” to which Graff responds: “And then put the fate of the world on his shoulders” (36). This shows that he is fully aware of the expectations being placed upon Ender’s success as a military leader. After looking at other examples in the novel, it becomes apparent how unrealistic the expectations for Ender are, and how harmful they could potentially be. Near the end of the story, one of the combat leaders named Mazer Rackham, openly admits that Ender ceased to be seen as human by those around him and that the boy was used as a literal weapon in the war against the buggers. He states, “You had to be a weapon, Ender. Like a gun, like the Little Doctor, functioning perfectly but not knowing what you were aimed at. *We* aimed you. We’re responsible. If there was something wrong, we did it” (298). Here Ender’s body is literally seen as an object, something to be used in warfare. The adult characters in the text admit that they are using Ender for the greater good of society, and they make little apologies for it.

Readers, though, must ask themselves who is really doing the most harm to Ender – the adult characters in *Ender’s Game* who manipulate him for their own gain, or the author himself, Orson Scott Card, who creates Ender in the first place. Initially, Card’s novel would seem to be

a harmless satire of a society that endorses the abuse and exploitation of children.⁶⁴ Critics might note that Card's novel is subtly sarcastic, and that the book is for all intents and purposes a social critique of a militaristic society (one that does not place enough value on the lives and bodies of small children). And, indeed, this was most likely Card's well-meaning intention. But in many other ways, Card's novel is yet another example of a text that uses children to explore adult themes in potentially dangerous ways. Since Card's primary purpose in writing the novel seems to be to provide a cautionary tale for readers about the ethical ambiguities of war and militaristic institutions, the use of Ender as a character to critique such institutions is in many ways problematic. Just as the battle commanders exploit Ender for the purposes of victory in combat, Card can also arguably be said to exploit Ender's body for the purposes of exploring the ethical or unethical aspects of war. Ender's body becomes a site of experimentation, a liminal laboratory, upon which Card and his readers can explore philosophical issues related to ethics, war, and leadership. Also, constructing a child character who is allowed to be abused by militaristic or educational institutions, and who ultimately emerges out of such training as a victorious and heroic success, is in many ways irresponsible since it does little to question the merits of such institutional practices. Rather, the suggestion is that the manipulation of children for larger societal goals, while unpleasant, might be necessary. As Card himself admits in the self-authored "Introduction" to the 1991 Tor Book edition of *Ender's Game*, using a child protagonist to probe the relationship between military institutions and ethical leadership was for all intents and purposes an afterthought (xvii).⁶⁵ Therefore, his use of a child character to question the ethics of war is in some ways problematic, since it presents a child body to readers

⁶⁴ For further discussion of *Ender's Game*, see Applebaum, Noga. *Representations of Technology in Science Fiction for Young People*. New York: Routledge, 2010. Print.

⁶⁵ To read more about Card's thoughts on the creation of the novel, see the introduction in: Card, Orson Scott. *Ender's Game*. New York: Tor, 1991. Print.

that can be physically and mentally abused with little consideration for the ethical repercussions of such actions. Both Graff and Anderson, the two primary leaders of the Battle School, escape after their trial with few consequences (305-308). In addition, Card's novel can be read as just another narrative in a long series of texts that present problematic associations between children, technology, and futuristic landscapes while liminalizing and marginalizing child bodies.

Constructions of mechanized child-cyborgs in this text have gone unchallenged for too long, and even today many novels of the late twentieth century continue to endorse associations between children and machines in problematic ways.

In "A Cyborg Manifesto," Haraway reminds her readers that, "Writing, power, and technology are old partners in Western stories of the origin of Civilization" (294). Because discussions of childhood and discussions of cyborgs are often closely tied to discourses of power, such discussions must be approached carefully. Both cyborgs and children have traditionally been defined as figures that exist outside of so-called "civilized" society, and so the two identities are often linked with each other and with written narratives containing themes of "discipline," "education," "progress," and "cultivation." For these reasons, it is important to revisit such discourses with extreme caution and acute skepticism, since it is often all too easy to become lost inside narratives which would dehumanize children by linking them to misguided constructions of threatening cyborgs, or which would attempt to link both cyborgs and children with regressive narratives about what "proper cultivation" and "progress" mean. Because written narratives, technology, and power dynamics are becoming increasingly harder to separate in the twenty-first century, an analysis of the relationship between children and cyborgs should first begin with an examination of literary and popular texts, as this work has demonstrated.

But such an analysis does not have to end there. In order to completely comprehend the potential perils of linking children and cyborgs together too casually in popular narratives, an analysis of the potential effects that written narratives can have on real children and real child bodies should be performed. Although the use of children to explore adult topics in science fiction is not necessarily unethical, it can become problematic if these explorations are conducted irresponsibly. As Donna Haraway reminds us in “A Cyborg Manifesto,” “the line between science fiction and social reality is an optical illusion” (291). Therefore, experimenting with the bodies of children in utopian or dystopian science fictions could potentially have negative repercussions for real children in everyday society.

CHAPTER 5

Considering the Consequences: Concerns for Real Child Bodies

How best should one investigate the body of a child?

-- Darshak Sanghavi, *A Map of the Child: A Pediatrician's Tour of the Body*

The child is thus figured as a body being sculpted and re-sculpted into an increasingly refined functioning entity, on its way to becoming a fully functional adult.

-- Claudia Castañeda, *Figurations: Child, Bodies, Worlds*

As earlier chapters in this work have demonstrated, the child-cyborg can be a politically progressive or regressive construction. When children are allowed to access new information and new experiences freely, they can potentially demonstrate and discover new modalities of being that adults may be either unaware of or unable to access. However, when the cyborg is seen as a threat, and children become linked to discourses which fear access, connection, and fusion with the larger world, then children can become linked to cyborgs in concerning ways. The previous analyses of eighteenth, nineteenth, and twentieth century texts have shown how adults sometimes manipulate the bodies of fictional child characters in literary and popular texts in order to experiment with their own anxieties about the changing modern world, children's access to experience and information, and the threats that nonhuman identities pose to humanist-centered ideologies. These regressive associations between children and cyborgs can act to create harmful discourses about childhood and modernization in popular medias; however, what effects do such fictional depictions have upon the material bodies of children in everyday life?

Just as Donna Haraway reminds readers of "A Cyborg Manifesto" of the "permeability of boundaries in the personal body and in the body politic" (307), it is important to also remember that the boundaries between fiction and reality are permeable as well. Therefore, all experimental uses of children in textual representations should be approached carefully. Constructions of children and childhood in literary and visual mediums often affect the way

children are viewed in everyday life, and vice versa. Therefore, if adults continue to haphazardly and irresponsibly use children in textual representations in order to interrogate their own obsessions and anxieties, they may simultaneously jeopardize real children and their physical and mental health.

Previous chapters of this work have demonstrated that discourses about children, access, technology, information, and industrialization frequently contain contradictory messages. On the one hand, some texts seem to contain the desire to “protect” children from the adult world and from uncensored kinds of information, technology, and experience in modernized society. From this perspective, connections between children and information, children and technology, and children and the modern world are viewed as potentially dangerous; instead, Nature is presented as a wholesome and healing alternative and childhood innocence is something to be protected. Frequently, children are also feared for the increasing power they wield as *consumers* and for the threat child consumers pose to stable adult-child hierarchies.

On the other hand, many texts purposefully expose child characters to dangerous aspects of the modern world in order to create cautionary tales for readers or in order to explore the desires and fears of adult authors who see information, technology, and modern experience as potentially threatening to perceived innocence. Children are often linked to discourses of the cyborg in a way that constructs both identities as non-normative, alien, and threatening, and children’s bodies become legitimate sites of experimentation for adult authors. It is this “othering” of the child-cyborg body as something nonhuman that creates harmful discourses which pose potential threats to the material bodies of real children.

If children’s bodies therefore become devalued in fictional representations, and are presented as viable sites for adult manipulation and experimentation, then such practices may

potentially occur more readily and more frequently in reality. When representations of childhood in popular culture suggest that it is acceptable for children to be exposed to harsh disciplinary practices, suggest that it is acceptable to subject children to questionable medical and scientific procedures that are experimental in nature, or suggest that childhood innocence can be fetishized and eroticized, then such beliefs become normalized over time and real children may suffer as a result. Many of today's child-related medical practices, labor practices, and sexual practices reflect the sometimes ambivalent attitudes adults often have towards children and childhood, and such attitudes are largely influenced by constructions of children in literary and popular texts.

Medical Practices

In many of the texts analyzed in previous sections of this work, children's bodies become sites of manipulation and experimentation for adults. These texts also suggest that children's bodies are not their own, or that children's bodies belong to parents, caretakers, or social institutions. Such constructions, or the hidden ideologies behind them which become normalized over time, greatly influence how children's bodies are viewed in everyday reality. An analysis of modern child-related medical practices, such as gender reassignment surgeries, craniofacial surgeries, and limb-lengthening procedures, may reveal some of the negative consequences of constructing ideologies which imply that it is acceptable for children to have little agency in making decisions about their own bodies.

Twenty-first century parents often feel a great deal of pressure when it comes to raising their children. Young couples are judged by their parenting styles and the types of children they produce and raise. Therefore, generating physically and mentally healthy children is often a main priority. The pressures to produce "perfect" children are severe, and perfection can mean

different things to different families. While some families stress academic excellence, others encourage their children to become all-star athletes. When infants are born with some type of physical “abnormality,” therefore, interventions are often made in order to ensure that such irregularities are immediately corrected.

Gender reassignment surgery, or genital surgical modification, is often employed in order to “correct” the gender of newborn infants who are born with ambiguous genitalia. Babies undergoing such procedures are made to look “more female” or “more male.” As Suzanne J. Kessler points out in her article “The Medical Construction of Gender: Case Management of Intersexed Infants,” such decisions are often made based on the interests of adults rather than children. Kessler claims that, “In fact, doctors make decisions about gender on the basis of shared cultural values that are unstated, perhaps even unconscious, and therefore considered objective rather than subjective” (18). Such values are often called into question by scholars who interrogate gender reassignment surgeries, or by clinicians who favor postponing reassignment surgeries until children reach an age of consent. Perrin C. White reminds readers of the potential value biases of adults in his essay “The Endocrinologist’s Approach to the Intersex Patient.” White states that, “It must also be recognized that recommendations for sex assignment are to some extent culture specific. In cultures that value infant boys over girls, parents may strongly resist rearing a female with ambiguous genitalia as a girl, and many girls with severely virilized external genitalia will be raised as males” (116). These surgical practices and technologies, then, often serve to facilitate heteronormative or patriarchal ideologies about gender and sexuality. Other cultural biases, or the personal preferences of pediatricians or parents, sometimes have disastrous results upon children as they age. In *Transgenderism and Intersexuality in Childhood and Adolescence: Making Choices*, authors Peggy Tine Cohen-

Kettenis and Friedemann Pfäfflin point out some of the negative physical consequences of such surgeries. They explain:

Consumer organizations state that, unless medically necessary, surgery should not be performed before individuals are old enough to make their own decisions (Chase, 1997). They have several arguments to support this position. First, the long-term outcome of early surgery is far from satisfactory. There are reports of chronic pain, scarring, loss of sexual sensitivity, inability to achieve orgasm, distress about the cosmetic appearance of having no clitoris and the necessity of multiple operations (Alizai, Thomas, Lilford, Batchelor, & Johnson, 1999; Creighton, Minto, & Steele, 2001; Schober, 1998, 1999). (Cohen-Kettenis and Pfäfflin 100)

These physical side-effects that Cohen-Kettenis and Pfäfflin point out often also operate in conjunction with mental side-effects that arise when children realize they have not been assigned the gender they would have chosen if they had been consulted later in life. Therefore, gender reassignment surgeries are often utilized to serve the interests of adults rather than children.

Other types of surgical practices upon children have also begun to be questioned in recent years for their ethical implications. Craniofacial surgeries for children born with cleft lips or palates, as well as limb-lengthening procedures for children born with achondroplasia (a cause of dwarfism), are growing more controversial and force adults to question whether children should be able to provide consent for such practices.⁶⁶ Indeed, adults often use such surgical practices and technologies in order to interrogate children's bodies, to explore their own personal anxieties about perfection and the body, and to "normalize" such individuals by ensuring that they adhere to specific cultural ideologies.

⁶⁶ For a further investigation of the ethical problems related to craniofacial practices, achondroplasia practices, and gender reassignment surgeries, see Parens, Erik, ed. *Surgically Shaping Children: Technology, Ethics, and the Pursuit of Normality*. Baltimore: Johns Hopkins UP, 2006. Print.

The desire to produce “perfect” children also increasingly happens at younger and younger ages. In recent years, technological, medical, and scientific advancements have led to the merging of various reproductive and genetic technologies and the creation of a new subfield of science known as reprogenetics.⁶⁷ The development of germinal choice technologies within the field of reprogenetics, such as preimplantation genetic diagnosis (PGD) and human genetic engineering (genetic enhancement and/or gene therapy), have allowed adults to experiment upon as well as genetically modify embryos, fetuses, and newborn infants. Such procedures have raised ethical concerns about whether there ought to be limitations placed upon adults’ ability to “interfere” with children’s DNA.

For instance, PGD procedures typically consist of identifying genetic abnormalities in embryos created by In Vitro Fertilization (IVF) techniques. Typically, PGD is a genetic screening procedure designed for medical purposes in the hopes that genetic diseases and disorders can be caught in embryos shortly before implantation of the embryo occurs. However, in recent years, individuals have begun to criticize PGD procedures that could potentially be used for non-medical purposes. These purposes might include gender selection, the creation of sibling donors for children with terminal illnesses, or the creation of “designed disability” for families in which parents wish to create children who have disabilities similar to their own (e.g. deafness). PGD has also been questioned since it could potentially result in couples choosing to abort fetuses that demonstrate genetic abnormalities early on. In his book *Babies by Design: The Ethics of Genetic Choice*, Ronald Michael Green discusses other potential outcomes PGD might result in. Green states:

⁶⁷ For further explication of the term, see Silver, Lee M. *Remaking Eden: How Genetic Engineering and Cloning Will Transform the American Family*. New York: Avon, 1998. Print.

Somewhere down the line, we will see the emergence of what I call ‘cosmetico-genomics,’ as parents strive to give their children more attractive physical features, including normal height, good teeth, clear complexions, and pleasing faces. In the more distant future, we may see cognitive and neurological enhancements, ranging from reduced susceptibility to dyslexia, learning disorders, and depression to improved memory and enhanced IQ. (7)

These optional non-medical procedures continue to elicit strong critical response from the scientific community and other concerned individuals, and some scholars feel that PGD might even have some negative medical effects as well. In an article entitled “‘It’s A Designer Baby!’ – Opinions on Regulation of Preimplantation Genetic Diagnosis,” Bratislav Stankovic explains that, “...genetic tests are not completely accurate, with an error margin of false positives – and the prospects of having less-than-desired children – of about 3%. Therefore, some parents will end up with “handicapped” children....It is also difficult to draw a line to decide when “genetic enhancements” might start imposing more than minimal risk in the children” (20). In addition to these risks, the author also points out that PGD potentially poses financial difficulties as well. Stankovic claims that, “PGD currently costs thousands of dollars, and if used solely for sex selection will divert medical resources from genuine medical need” (22). Therefore, PGD continues to remain controversial and it potentially poses some risk to children and their families as well as the medical community.⁶⁸

⁶⁸ For more sources discussing the ethical ramifications of PGD, see The Ethics Committee of the American Society of Reproductive Medicine. “Sex Selection and Preimplantation Genetic Diagnosis.” *Fertility and Sterility*. 72.4 (Oct 1999): 596-98. Print.; The Ethics Committee of the American Society of Reproductive Medicine. “Preconception Gender Selection for Nonmedical Reasons.” *Fertility and Sterility*. 75 (2001). Print.; Roberts, Jason C. “Customizing Conception: A Survey of Preimplantation Genetic Diagnosis and the Resulting Social, Ethical, and Legal Dilemmas.” *Duke Law and Technology Review*. 12 (2002). Print.; Wolf, Susan M. et al. “Using Preimplantation Genetic Diagnosis to Create a Stem Cell Donor: Issues, Guidelines & Limits.” *The Journal of Law, Medicine, and Ethics*. 31 (2003). Print.; Pennings, G. et al. “Ethical Considerations on Preimplantation Genetic Diagnosis for HLA Typing to Match a Future Child as a Donor of Haematopoietic

Similarly, human genetic engineering procedures, such as genetic enhancement or gene therapy, raise multiple ethical considerations. Genetic enhancement is typically understood as a process by which “ideal” genes can be transferred or modified into an already-existing embryo or human. For example, children can be genetically enhanced so that they have a higher likelihood of becoming a professional athlete or musician. In contrast, gene therapy involves replacing “defective” genes with “healthy” genes on already-existing embryos or humans. Both procedures have raised a great deal of controversy in recent years for the potential ethical dilemmas they create.⁶⁹ Concerns about equal access to such technologies, about the effects such procedures may have upon evolutionary processes, and over the experimentation upon animals these procedures essentially require, have all impacted these developing fields in the last few decades. Adults’ use of such technologies upon embryos, fetuses, infants, and children continues to remain questionable since such individuals are not able to provide consent. These procedures are also demonstrative of the way that adults attempt to “perfect” child bodies by experimenting with and manipulating their DNA.

Reprogenetic procedures like PGD and human genetic engineering, as well as surgical procedures such as gender reassignment practices, craniofacial practices, and limb-lengthening practices, all highlight the way adults frequently impose their own desires onto the bodies of children. In their quest for the “perfect child,” parents and medical practitioners often put children and their bodies at risk for procedures they might not have consented to if consulted at an older age. While surgical procedures and genetic procedures themselves are not necessarily

Stem Cells to a Sibling.” *Human Reproduction*. 17 (2002). Print.; Malinowski, Michael J. “Choosing the Genetic Makeup of Children: Our Eugenics Past – Present, and Future?” *Connecticut Law Review* 36 (2003). Print.;

⁶⁹ For further reviews of the controversies surrounding human genetic engineering, please see Baylis, Francoise, and Jason Scott Robert. “The Inevitability of Genetic Enhancement Technologies.” *Bioethics* 18.1: 2004. Print.; Resnik, David B., and Daniel B. Vorhaus. “Genetic Modification and Genetic Determinism.” *Philosophy, Ethics, and Humanities in Medicine* 2006. 1-11. Print.; and Kuhse, Helga, and Peter Singer, eds. *Bioethics: An Anthology*. Oxford, UK: Blackwell, 1999. Print.

inherently unethical, imposing procedures upon the bodies of children to fulfill adult desires and to placate adult anxieties can potentially be quite harmful.

Labor Practices

If constructions of children in texts marginalizing child bodies seem to influence the way real children are treated in medical practices, such representations, too, must certainly seem to influence how children are treated in domestic and international labor practices. When children become “othered” they also become valued less, and this often leads to serious abuses of labor standards in both industrialized Western nations and non-industrial countries. Just as children’s bodies often get subjected to experimental medical practices which afford them little agency, labor practices, too, often dehumanize children in alarming ways. Illegal domestic labor in the United States, the abuse of international child laborers by Western companies, and the exploitation of young children in the entertainment industry all reflect how Western societies undervalue the material bodies of children.

For instance, although the twentieth century is sometimes called the century of the child, modern-day child labor practices do not always reflect the reverence for childhood Western adults often claim to have. In their article “Illegal Child Labor in the United States: Prevalence and Characteristics,” Douglas L. Kruse and Douglas Mahony describe the way that late twentieth century American teenagers and children are often exploited by businesses. They write:

In an average week during the period surveyed, 153,600 children and adolescents are estimated to have been working illegally in the United States, comprising 40,800 16- and 17-year-olds, 68,100 14- and 15-year-olds, and 44,700 children under age 14....The total number estimated to have been employed illegally at some point during 1996 is

300,900....In an average week, over 2 million hours of illegal work are estimated to have been performed by these youths, totaling 110 million hours in one year. (20-21)

Although we might initially think that such abuses arise primarily out of the exploitation of illegal immigrants or certain racial or socioeconomic groups, Kruse and Mahony did not find this to be true. They claim that illegal employment spans all demographic and geographic groups, and that "...it cannot be generally blamed on poverty or labor market disadvantage forcing youths into illegal employment, since illegal employment was actually more common among white non-Hispanics, and the rate varied little by family poverty status" (32). Therefore, since such labor abuses do not necessarily arise out of economic need or labor markets, it is possible such violations emerge because of Western attitudes about children and child bodies.

The labor industry has a long history of exploiting child workers, dating all the way back to the Industrial Revolution. Even today, when new industrial technologies are developed, children in non-Western countries are frequently enlisted to operate machines within factories or sweatshops run by Western businesses, because of their ability to quickly adapt to new environments and because they are unable to adequately defend themselves against unfair labor practices. In recent decades, foreign child workers have been utilized in the production of new electronics equipment and the recycling of old outdated "e-waste" produced by Western companies. Although preventative international initiatives, such as the *International Labor Organization's* INDUS (India-US) Child Labour Project, have been passed in an attempt to curb such practices, child workers are often employed in the electronics industry today under questionable conditions. The Southeastern region of Asia, in particular, has become infamous for media scandals involving child laborers and electronic industry suppliers. In May of 2008, the *New York Times* presented an article describing the dire working conditions for many child

laborers in China. The article's author, David Barboza, reported that, "Authorities in southern China's Guangdong Province, near Hong Kong, said they had made several arrests and had already "rescued" more than 100 children from factories in the city of Dongguan, one of the country's largest manufacturing centers for electronics and consumer goods sold around the world" ("China Says Abusive Child Labor Ring Is Exposed"). China is well-known amongst NGOs and other international watch groups because it is home to many suppliers working for electronics companies such as IBM, and because of its long record of labor violations. But other countries also sport equally problematic labor records. The questionable policies of recycling plants for old electronic equipment in Delhi, India, were revealed in a 2006 book entitled *Challenging the Chip: Labor Rights and Environmental Justice in the Global Electronics Industry*. The book's authors, Ted Smith, David Allan Sonnenfeld, and David N. Pellow, state that:

E-waste recycling takes place in small, unregistered, labor-intensive units located in the industrial areas, though some also operate from houses in residential areas. Improper ventilation, excessive noise levels, high heat, and a lack of fresh air over a long period of time are some common features of the working conditions in the recycling units. Migrant and unprotected workers, including a large number of children, work in the recycling facilities, where the employers are neither aware of the hazards nor interested in the workers' safety. (Smith et al. 243)

Such hazards demonstrate that adults often assume contradictory positions in their attitudes about childhood and technology. Although there seems to be a great deal of anxiety in society about young people's unlimited access to technology and information, technology is still utilized to

take advantage of child workers who are willing to operate machinery or to work in factories which produce or recycle electronic goods.

Similarly, there also seems to be a contradiction in societal attitudes about children's consumption of media and the actual treatment of child employees in the entertainment industry. There have been multiple "moral panics" in recent years due to children's increased exposure to sexual images on television, in music, and in films; however, children in the entertainment industry are also increasingly manipulated and sexualized in these very mediums. As the music industry and the television industry have begun to merge in the last several decades, thanks to the creation of electronic mediums such as MTV, VH1, and YouTube, the images and lyrics of child musicians and vocalists have grown increasingly sexualized in order to capture the attention of viewers and listeners. In her article "Girls, Sexuality, and Popular Culture," author Tizzy Asher states, "In popular music, we find teenage girls continually marketed as highly sexualized beings, ready to cater to the whims of men. Britney Spears, Christina Aguilera, Destiny's Child, and countless other teen stars parade across MTV and VH1. They are just adult enough to be available, just young enough to be non-threatening" (23). And, indeed, such young stars are highly marketed commodities. Rarely do these young teenagers or tweens, like Selena Gomez or Hillary Duff, have creative control over their music or legal control over how they are marketed. Young male pop stars, like the members of N'SYNC or the Backstreet Boys, are also highly sexualized or experience similar creative and/or legal restrictions. As Martin Scherzinger states in "Music, Corporate Power, and Unending War," "Niche markets formulated in corporate headquarters exert an un-told influence on the acquisition policies, the production and distribution practices, and the musical styles adopted by performers" (25). Often this means that artists are hired because they embody a certain concept or because they attract certain niche

markets. An article in the *Texas Review of Entertainment & Sports Law*, entitled “Entertainment Contracts with Minors in Texas,” describes some of the difficulties today’s young artists face as they attempt to gain control of their own image and/or sexuality: “...the entertainment industry today has little incentive to seek out court approval of contracts. Today much of the work young actors and performers do is short-term, for example, T.V. commercials. Thus, the employer often does not want to go through the trouble of gaining court approval for a few days of work” (Clifford 138). Therefore, young people are finding it increasingly difficult to retain any semblance of agency in the entertainment industry; adults increasingly exploit the bodies and artistic careers of young people attempting to earn a living in the music, film, and television industries.

After considering how children are exploited in illegal domestic markets, in foreign labor environments run by Western businesses, and within the entertainment industry, it becomes apparent that child workers are still being manipulated by adults for economic gain. Frequently, child laborers are marginalized and dehumanized as they are denied the agency that is so easily afforded adults. Scholars should ask, then, whether the abuses of children in modern labor practices are coincidental, or whether there may be some connection between attitudes towards child labor and the disregard for child bodies which surfaces so frequently in Western texts.

Sexual Practices

As the previous discussions of child-related medical and labor practices have shown, adults often establish contradictory expectations for children. On the one hand, children are taught that they should prolong their innocence for as long as possible and that they should strive for physical and mental perfection. On the other hand, children are often thrown into mature situations at a young age, particularly when it aids economic gain. Similarly, contradictory

attitudes towards children often appear in adult approaches to child sexuality, and modern-day sexual practices often reflect how child bodies are marginalized or dehumanized by adults.

The phenomenon of child beauty pageants, for instance, has grown in popularity in the last several decades, as have online child modeling agencies such as “ChildSupermodels.com.” Although parents, coaches, and judges frequently expect that contestants in such competitions display some form of childlike naiveté and innocence, children are also forced to achieve certain physical standards of beauty in order to place well in these contests. As noted scholar Henry Giroux has stated, “the beauty pageant is an exemplary site for examining critically how the discourse of innocence mystifies the appropriation of children's bodies in a society that increasingly sexualizes and commodifies them” (“Nymphet Fantasies” 36). Although beauty pageants have always commodified children’s bodies to a large extent, technological advancements in recent decades have made such commodification particularly dangerous and alarming. Today’s child pageant contestant not only has to don make-up, wigs, and a fake tan, she is also often encouraged to experiment with developing technologies such as botox and breast augmentation. In her article “Protecting Pageant Princesses: A Call for Statutory Regulation of Child Beauty Pageants,” author Lindsay Lieberman argues that such procedures are dangerous and should be regulated more carefully. Lieberman states:

Some parents even encourage their children to have plastic surgery in order to perfect their pageant looks. Younger girls undergo cosmetic ear surgeries, called otoplasties, and have their teeth corrected prematurely. Minors as young as fourteen undergo breast augmentations to achieve fully mature looks. These physical costs to a child's body are significant results of the pressure to conform in an industry where beauty is the top priority. (755-56)

The use of appearance-altering devices, chemicals, and surgeries in child beauty pageants and child modeling agencies has forced scholars of child welfare to question whether or not such phenomena constitute child abuse. The *BBC News* recently reported the story of an eight-year-old girl who was taken out of her mother's custody after the woman injected botox treatments into her daughter's face without the supervision of a doctor. The mother of the girl claimed: "A lot of the moms there [in child beauty pageants] are giving their kids Botox, I'm not the only one who does it" ("Eight-Year-Old Botox User Taken Into Care In America"). Such statements reflect the contradictory approaches adults sometimes adopt in discussions of child sexuality.

Additionally, ongoing debates about child pornography reflect the way that child bodies are either dehumanized or fetishized. In their book entitled *Child Pornography: An Internet Crime*, authors Maxwell Taylor and Ethel Quayle explain some of the changes that technology has brought about in the accessibility of kiddie porn. They state, "With the advent of new technologies, demonstrating an interest in child pornography has moved from furtive and often expensive purchasing of magazines and videos to being able now to download vast numbers of photographs without payment, in large quantities and in the privacy of one's own home" (Taylor and Quayle 7). Governmental data also seem to support such claims that child pornography is on the rise. For instance, the U.S. Office of Juvenile Justice and Delinquency Prevention reported that, "The proportion of all pornography incidents with child/juvenile involvement increased from 15 percent in 1997 to 26 percent in 2000" (United States 2). With the production and distribution of child pornography on the rise, a good deal of attention has been brought to such issues in recent years; however, such attention and/or criticism has often been directed at the wrong people.

Frequently, stereotypes about male pedophiles create hysterical moral panics, and although there is some justification for the belief that the majority of child sexual offenders are white middle-aged males, other root groups or systems are left unaddressed. In her book *Crime Online*, Yvonne Jewkes describes the way that root causes of child porn, such as societal and media attitudes about young people, are frequently ignored in discussions about pornography. Jewkes writes, “The construction of the paedophile as society’s number one folk devil sits uncomfortably within a culture which, in other arenas (such as fashion, beauty and art), fetishises youthful bodies” (61). In this way, Jewkes reminds her readers of the major impact media and art can have upon child sexuality. Jewkes goes on to claim that, “the reality of adult-child relations is almost certainly more complex and more uncomfortable than such black-and-white representations suggest, given that the sexualization of children and the blurring of boundaries between expressions of childhood and adult sexuality has reached unprecedented levels (Greer and Jewkes, 2005)” (61). Although the importance of preventing and punishing the acts of child sexual offenders or male pedophiles cannot be disregarded, adults also cannot ignore, as Jewkes points out, these other underlying factors which contribute to the sexualization of children. Similarly, in his book *Beyond Tolerance: Child Pornography on the Internet*, Philip Jenkins reminds us that groups such as federal agencies, politicians, and the media often neglect root causes of kiddie porn. Jenkins states:

In the case of sexual threats to children on the Internet, federal agencies speak mainly in terms of online seduction, or pedophiles stalking victims via computers, an area in which police can hope to achieve results. In consequence, the larger problem is popularly defined in terms of cyberstalking. Serious child pornography trafficking is thus ignored, or at least left unconstructed. (7)

Whatever the root causes might be, the rise of child pornography in recent years is concerning and demands greater individual attention around the world. Lackadaisical attitudes about child pornography could have many devastating effects if they imply that the sexualization of young children is not alarming. The widespread phenomenon of child sex trafficking, which continues to rise every year, might be one such consequence.

In his essay “A Human Rights Approach to Preventing Child Sex Trafficking,” Jonathan Todres reminds us that such phenomena continue to merit large-scale and sustained international attention. Todres reports that, “An estimated one million children enter the sex trade annually in Asia alone, many of them trafficking victims. The prostitution of children and child pornography are thriving trades that call for immediate and concerted government action (UN Development Fund for Women, 1996)” (133). Similarly, in their essay “Child Slavery Today,” authors Joost Kooijmans and Hans van de Glind claim that: “... boys are typically trafficked for labour related to commercial farming, the drug trade and other illicit activities, while trafficking of girls often relates to domestic service, or sexual exploitation. Trafficking represents 20% of all forced labour, and over 43% of victims are trafficked for sexual exploitation. Of all trafficking victims worldwide, between 40% and 50% are children” (31). Therefore, the dehumanization of child bodies through sexual practices continues to be a widespread problem.

Rises in child beauty pageants, child pornography, and child sex trafficking, demonstrate the contradictory attitudes adults sometimes adopt as they fetishize childhood innocence while simultaneously sexualizing and eroticizing young people. Such conflicting behaviors reveal the often unrealistic expectations adults appropriate in their attitudes towards young people (young people who are expected to be both innocent and sexual), and they highlight the dehumanization

of child bodies which often become exploited and “othered” as they are turned into sexualized objects.

Conclusion

This work has attempted to analyze the way that regressive constructions of child-cyborgs in textual representations sometimes impact the way adults interact with real children. By examining depictions of the animal-child cyborg in Romantic texts such as *Songs of Innocence and Experience*, by questioning portrayals of preternatural child-cyborgs in Victorian texts such as *The Turn of the Screw* and *The Adventures of Pinocchio*, and by studying descriptions of mechanized child-cyborgs in Modernist novels such as *Brave New World* or *Ender’s Game*, the ethical implications of utilizing child characters to experiment with adult issues has been interrogated. When regressive models of the cyborg are constructed, and children become linked to these models in a dehumanizing way, both the child and the cyborg become liminal constructions which are “othered” and marginalized. This work has suggested that there are dangerous consequences for irresponsibly constructing such regressive child-cyborg characters in textual mediums, and that the material bodies of actual children may be put at risk as a result. An analysis of current child-related medical practices, labor practices, and sexual practices has attempted to highlight several of these risks.

It is important to remember, though, that constructions of child-cyborgs can also be progressive. When children are allowed to freely interact with their surroundings in a way that encourages openness, accessibility, and exchange, they often demonstrate liberatory models for interacting with the world. Because children are frequently more adaptable than adults and less predisposed to personal bias and partiality, they can integrate with new systems extremely quickly. Thus, they can potentially communicate with ecological systems, technological

systems, and informational systems in ways that encourage interactivity and connection rather than isolation and exclusion.

Therefore, it is important to reconsider constructions of child-cyborgs in literary and popular texts so as to ensure that progressive rather than regressive models are circulated. As Donna Haraway states near the close of “A Cyborg Manifesto,” “This is not just literary deconstruction, but liminal transformation” (313). The material bodies of children are often impacted greatly by the way childhood is represented in textual culture; thus, rather than depicting cyborgs, children, and/or child-cyborgs as terrifying “others” which threaten humanist-centered ideologies, authors should turn to these figures as they seek new more inclusive methods for interacting with the posthumanist world. Instead of experimenting with the bodies of cyborgs, children, and child-cyborgs in texts in order to better understand their own anxieties and fears, these authors should instead look to children, cyborgs, and child-cyborgs for direction as they struggle to develop new modalities for being in a rapidly changing globalized world.

Child-cyborgs, when depicted progressively, have a lot to teach humanity about how to interact in a less dualistic way with the animal world, the spiritual world, and the technological or industrialized world. As Donna Haraway claims at the close of “A Cyborg Manifesto,” “Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves” (316). The child-cyborg, then, can demonstrate how to effectively break down binaries, boundaries, and borders between the human and the nonhuman if we learn to stop crucifying it and instead begin to celebrate it.

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