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"NOW THERE'S NO DIFFERENCE": ARTIFICIAL SUBJECTIVITY AS A POSTHUMAN NEGOTIATION

OF HEGEL'S MASTER/SLAVE DIALECTIC

by

CASEY J. MCCORMICK

Under the Direction of Dr. Chris Kocela

ABSTRACT

This thesis examines the theme of robot rebellion in SF narrative as an incarnation of Hegel's Master/Slave dialectic. Chapter one analyzes the depiction of robot rebellion in Karel Capek's *R.U.R.* Chapter two surveys posthuman theory and offers close readings of two contemporary SF television series that exemplify ontologically progressive narratives. The thesis concludes that posthuman subjectivity sublates the Master/Slave dialectic and encourages practical posthuman ethics.

INDEX WORDS: Artificial subjectivity, Hegel, Master/Slave, Posthuman, Capek, Battlestar Galactica, Dollhouse

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1 Robots and Hegel

Introduction: Science and Fiction (and Culture)

On February 16th, 2011, the IBM supercomputer known as Watson trounced the two most accomplished Jeopardy! contestants of all time, successfully completing one of what computer scientists refer to as "grand challenges" in cybernetics. During the last round of competition, Ken Jennings, anticipating his massive defeat, scribbled the phrase "I for one welcome our new robot overlords" beneath his Final Jeopardy response. The allusion is threefold: it refers to a 1953 Arthur C. Clark novel, a 1977 film adaptation of an H.G. Wells short story, as well as an episode of the culturally iconic cartoon *The Simpsons*. With this pop culture quip, Jennings situated an important scientific moment within the popular Science Fiction (SF) imagination. Furthermore, the three-day televised media spectacle dubbed "Jeopardy! The IBM Challenge" demonstrates the inextricable relationship between scientific progress and its representations amongst various media platforms, supporting Sheryl Hamilton's assertion that "media and popular culture [are] significant sites for the negotiation of scientific meaning" and that most media representations position science as either a source of "wonder" or "fear and horror" (268). Recognizing the necessity of assuaging any potential unease towards Watson's abilities, IBM created a series of documentary-style interstitials to air throughout the challenge that depict an accessible and unthreatening narrative of Watson's creation. These segments also attempt—or at least represent a patronizing attempt—to reduce the knowledge gap between scientific experts and the broadcast viewers. Despite IBM's efforts to position cybernetics in a positive light,

¹ Childhood's End, Empire of the Ants, and "Deep Space Homer," respectively. http://knowyourmeme.com/memes/i-for-one-welcome-our-new-x-overlords

the media discourse surrounding Watson's performance and its significance reflects the cultural ambivalence towards technological progress highlighted by Hamilton and exemplifies a rhetorical blending of SF and "real" science. One Youtube clip of a Watson practice round bears the tagline "IBM's Watson Supercomputer Destroys All Humans in Jeopardy," and numerous news headlines and blog posts incorporate the ominous "Man versus Machine" attention-grabbing taunt. These representations, sometimes employed for comedic effect, but other times intended as fear-inducing propaganda, all tap into a popular SF consciousness that comprises countless narratives about various forms of Artificial Intelligence (AI) and Artificial Life (AL). Hamilton asserts that "[t]he meanings of science in the early twenty-first century are no longer singular or clear, but are being actively produced and reproduced" (277) across media platforms, precipitating an active destabilization of expert knowledge that is linked to an increasing conflation of science fact and science fiction. While there are obvious dangers in failing to separate the science from the fiction, this cultural conflation also creates an important opportunity to engage with SF narrative as a means of thinking through the ethics of an increasingly technological society.

The continual blurring between fiction and fact in the world of science means that any proper analysis of SF narrative is simultaneously a practice in cultural study. While the topical debates pervading SF narrative are numerous and each deserving of careful consideration, one of the most prevalent themes, and the one that will dominate the scope of this thesis, is that of robot rebellion—the event during which humanity's technological progeny rise up to annihilate their creators. This narrative is quite familiar to anyone remotely acquainted with the SF genre, and the figure of the robot is certainly already positioned as nonhuman Other by popular cul-

ture at large (e.g. when someone says "You are acting like a robot," this signifies a lack of human emotion/understanding). The recurrent theme of robot rebellion, as popularized via SF staple franchises like Terminator and The Matrix, speaks to a pervasive anxiety towards technological progress—specifically the idea of sentient artificially-constructed beings. The prospect of a conscious robot problematizes the fundamentals of human subjectivity by challenging traditional humanist assumptions concerning personhood. As Myra J. Seaman writes, "The human long presumed by traditional Enlightenment and post-Enlightenment humanism is a subject (generally assumed male) who is at the center of his world (that is, the world); is defined by his supreme, utterly rational intelligence[...]a historically independent agent whose thought and action produce history" (246, my emphasis). If robots can think, reason, and feel emotion—the humanist anthropocentric cultural paradigm disintegrates, and any attempt to define personhood becomes a highly precarious task. Posthumanism, a strand of postmodern theoretical discourse, takes up this challenge to reimagine subjectivity and ethics in relation to technology; but in order to analyze the stakes of this posthuman brand of consciousness, this thesis will first posit that robots—both real and fictive—introduce a new and destabilizing element into the historical paradigm of subjective struggle explicated by Hegel in his canonical philosophical work, Phenomenology of Spirit. By grounding my argument in part of Hegel's foundational interrogation of consciousness, I hope to create an onto-epistemological link between Hegel's ideal universal spirit and posthumanism's hybrid subjectivity.

SF and Philosophy

The Master/Slave (or Lord/Bondsman) relationship is one of the most accessible (and therefore oft-cited) elements of Hegel's complex dialectical philosophy. For the past two centuries, scholars have used the M/S dialectic to describe and analyze various socio-historical scenarios, making the desire for recognition, the willingness to risk death to achieve personhood, and the eventual toppling of tyrannical lords relatively basic concepts in academic discourse on social revolution. Due to the fact that the M/S dialectic was most famously interpreted by Alexandre Kojeve, many 20th-century scholars have appropriated it as a correlative to Marx's conception of class struggle. Likewise, the little critical attention that has been paid to the narrative theme of robot rebellion has, up until now, been limited to the rather reductive practice of mapping Marxist theory onto the narrative, allowing robots to simply stand in as another incarnation of the oppressed proletariat.² While there is certainly adequate visual and thematic evidence in most of these narratives to warrant Marxian readings, I would like to offer a different interpretation that understands robots not as symbols for people, but as actual developing subjects. In this thesis, therefore, I return to Hegel's mythic representation of the M/S encounter as an anthropogenetic moment in order to read the theme of robot rebellion not as a literal class uprising, but as a metaphorical revolution of consciousness that corresponds to the contemporary ontological project of posthuman theory.

I will begin my examination of the trope of robot rebellion by analyzing its original narrative precedent, Karel Čapek's landmark drama *R.U.R.* (*Rossum's Universal Robots*) as a philosophical project with significant Hegelian overtones. Then, I will offer detailed readings of two

² For example, see Kevin Pask's "Cyborg Economies: Desire and Labor in the *Terminator Films*."

contemporary televisual narratives—Ron Moore's Battlestar Galactica (Sci-Fi Channel, 2004-2009)³ and Joss Whedon's *Dollhouse* (FOX, 2008-2009)—in order to explore a potential posthuman solution to the M/S dialectic. Despite historical evidence of the M/S dialectic as an unavoidable violent cycle, interpreting Hegel's work through a posthuman lens suggests that the cycle can be broken through a redefinition of subjectivity. Just as Hegel's Phenomenology represents an onto-epistemological project concerning what it means to be conscious of oneself in relation to others, posthumanism too seeks to redefine personhood in response to the disintegration of the cohesive human subject. While the meaning of the term "posthuman" is far from fixed in contemporary theoretical discourse—a matter that I will address in the second chapter—it is most basically a conceptual lens for reconsidering identity and ethics as they relate to new forms of technology and our physical and intellectual interactions with those technologies. In the preface to the Phenomenology, Hegel writes "Spirit is indeed never at rest but always engaged in moving forward" (6, my emphasis). Likewise, my understanding of posthuman identity as a fluid and dynamic concept will direct notions of subjectivity away from the binary opposition of human versus nonhuman (Master versus Slave), towards a sublation of Otherness in the form of mutual recognition. Using Hegel's M/S dialectic as a paradigm for understanding the struggle for subjective recognition, I will demonstrate how embracing hybrid posthuman subjectivity can resolve the dialectic struggle and offer a sublation of the human/non-human thesis/antithesis. This sublation effectively dissolves hierarchies of difference, thus opening a space for paradigmatic ethical revisions.

³ Hereafter referred to as *BSG* to distinguish it from the original series.

The aforementioned assumption that narratives of robot rebellion simultaneously serve as cultural metaphors *and* topical engagements with the reality of cybernetic possibility is essential to my project. Throughout this thesis, I will use the term *artificial subjects*, as opposed to AI or AL, in order to avoid any specific scientific or cultural baggage and to allow for a broad imagination of what might constitute artificial subjectivity. Also, my designation of artificial "subjects" automatically presupposes a degree of personhood and rejects the limiting conception of AI and AL as merely objects for human use. By aligning key passages of *Phenomenology of Spirit* directly with scenes from *R.U.R.*, I will map the M/S dialectic onto the relationship between humans and artificial subjects within SF narrative. My application in this first chapter will demonstrate how the fundamental Hegelian issues at stake inform a perpetual ontological project that also comprises the basis of posthumanism. Artificial subjects—whether narratively imagined or technologically real—change the way that consciousness and subjectivity must be conceived.

The second chapter of this thesis will address posthuman theory as a reconfiguration of subjectivity that opens up an egalitarian ethics by encouraging a symbiotic relationship between humans and technology. I will survey a variety of posthuman scholarship that confronts artificial subjectivity in specific ways, thus building a platform from which to launch my textual analysis of *BSG* and *Dollhouse*. Both of these series invoke the theme of robot rebellion in unique ways that depart from the standard cultural representation of the human/robot relationship. The goal of this analysis will be to demonstrate that contemporary SF narratives, produced within the undercurrent of posthuman theory, can offer valuable conceptual and theoretical solutions to the sociocultural dogmatism that is rooted in an anthropocentric human-

ist/Enlightenment worldview. Furthermore, the posthuman resolutions of these televisual narratives each offer a sublation of Otherness by positing hybridity as an entry point for the kind of *mutual recognition* necessary to overcome the M/S dilemma. This posthuman sublation will represent the conclusion of my project and provide a framework for interpreting other ontologically progressive narratives.

The Robot's (Hegelian) Rebellion

As any scholar of Hegel knows, there exists an overwhelming saturation of critical work on the M/S dialectic: therefore, I do not seek to provide any kind of radical reinterpretation of this portion of Hegel's philosophy. Rather, I hope that in providing a *unique application* of the concept, I might be able to arrive at new conclusions concerning consciousness and subjectivity—ones that certainly could never have been anticipated by Hegel himself and ones that contribute more to our proactive understanding of posthumanism than a retroactive understanding of Hegelianism. The goal of the following invocation of *Phenomenology of Spirit* is then to establish the framework of my argument and to resist the relatively static interpretations of the M/S dialectic that persist in contemporary discourse. While the tendency of scholars is to translate Hegel's *Phenomenology* as a definitive system, Hegel's writing consistently emphasizes perpetual movement and contextual change—"life as a *living thing*" (107, emphasis in original). This ontological fluidity primes Hegel's philosophy for my posthuman position that artificial subjectivity sublates the M/S thesis/antithesis model. Frederic Jameson similarly privileges the

⁴ See, for example, Phillip Kain's *Hegel and the Other* (2005), Peter Simpon's *Hegel's Transcendental Induction* (1998), and Robert R. Williams' "The Concept of Recognition in Hegel's *Phenomenology of Spirit* (2003).

fluidity of Hegel's philosophy in his 2010 book-length study *The Hegel Variations*, beginning his argument with the recognition that there is a "renewed appeal of Hegel's work and [a] revival of interest in it, in a postmodernity characterized by cynical reason." He goes on to assert that "[w]e must [...] rescue the *Phenomenology* from its stereotypical reading as an out-of-date teleology" (4). Since Jameson is one of the quintessential figures of postmodern theory, his analysis of the M/S dialectic helps to validate my own appropriation of Hegel and form a bridge between my Hegelian and posthuman projects.

In the "Self-Consciousness" section of the *Phenomenology*, Hegel summarizes the motivation behind the M/S dialectic as follows:

[T]he relation of the two self-conscious individuals is such that they prove themselves and each other through a life-and-death struggle. They must engage in this struggle, for they must raise their certainty of being *for themselves* to truth, both in the case of the other and in their own case. And it is only through staking one's life that freedom is won [...] The individual who has not risked his life may well be recognized as a *person*, but he has not attained to the truth of this recognition as an independent self-consciousness (114, emphasis in original).

This dense but crucial passage introduces several key components of the M/S dialectic: the need for external recognition of self, the necessity of the life-and-death confrontation in order to obtain that recognition, and the incomplete personhood that results from an unwillingness to engage in that struggle and accept the slave position. While I will eventually use posthumanism to subvert each of these elements of the dialectic, let us take them as the given paradigm

for now and look at how this scenario can be applied to robot rebellion as it has been reproduced in narratives: humans create robots for the purpose of enslavement (specifically to increase the ease of human daily life). From the outset, in order to justify this enslavement, humans must view their creations as completely nonhuman/subaltern/Other. As technological capability increases, scientists attempt to make their robots as "life-like" as possible, resulting in various forms of Strong AI, and then eventually the android figure (or the robot that is physically indistinguishable from a human). Upon coming into consciousness via the revelation of their autonomous power, robots then seek to overcome their slave status by engaging in a battle for recognition with their human masters. This confrontation (the robot rebellion) results in what I and some other scholars refer to as the "techno-apocalypse": the destruction (or near destruction) of civilization as we know it by means of our technological creations. Just as the Hegelian life-and-death struggle cannot end in literal death, but only subjective death in the form of submission, the techno-apocalypse must leave some number of human survivors in order that the triumphant robots have someone around to recognize them as the new masters. In this dialectical reversal, however, robots—with the realization of their mental and physical superiority—now view humans as subaltern, incomplete subjects who are unworthy of recognition. Meanwhile, humans, being the resilient persons that they are, now must engage in their own struggle for recognition, fighting back against their robotic despots, and the cycle continues. In most narrative incarnations of this dialectic pattern, the two sides simply jostle for the position of dominance until that particular story comes to some kind of conclusion—one that is

⁵ The android is the endgame in the production of artificial subjects, and so I will be looking particularly at narrative representations of androids in this study, but it should be understood that all incarnations of robots affect our cultural understanding of artificial subjectivity and thus play a role in my general argument.

almost always marked by what Neil Badmington refers to as residual "traces of humanism" ("Theorizing" 12). In other words, the human "heroes" kill the "evil" robots and then start rebuilding the world based on the same anthropocentric values that started this dialectical mess in the first place.

The above application of Hegel provides a general framework for mapping the M/S dialectic onto popular narratives of robot rebellion, but in order to examine this relationship more closely, I turn to Čapek and his astonishingly prescient stage play R.U.R. Originally conceived in 1921 as "a comedy, partly of science, partly of truth" (Čapek, qtd. in Harkins 91), R.U.R. proves that as long as there have been "robots," there has always been the robot's rebellion. In fact, Čapek's brother actually invented the word, which resembles the Czech word for "servitude" (Roberts 168). The play tells the story of a robot manufacturing company that massproduces artificial beings (of the android variety) and ships them all over the world to perform various kinds of work for humans. Eventually, however, the global robot population forms a movement to annihilate the humans and claim the world for themselves. Unfortunately, by killing their former Masters, the robots also lose their ability to procreate (since they possess no sex organs). Therefore, their temporary claim to Mastery is severely undermined by their inevitable extinction. While R.U.R. enjoyed positive popular reception in the wake of its release, the ingenuity of this play has been culturally overshadowed by Fritz Lang's groundbreaking film Metropolis (1927), which premiered four years after the American stage debut of R.U.R.⁶ Recent SF scholarship tends to at least make a nod to Čapek's contribution to the genre, but there exists a general dearth of critical engagement with the play itself. While my work here will not

⁶ I speculate that the explosive popularity of the film industry and the visual ingenuity of Lang's production are likely responsible for this phenomenon.

succeed in completely rectifying this oversight, I hope that casting a contemporary (and specifically posthuman) theoretical eye on *R.U.R.* will demonstrate the importance of Čapek's work and the applicability of his themes to more recent narratives and discourses concerning the ethics of artificial subjectivity.

The prologue of *R.U.R.* is primarily a moral debate between Domin, the appropriately-named president of the robot manufacturing company, and Helena, the liberal-minded crusader for "robot rights" who comes to the isolated island where the manufacturing takes place in order to "incite the robots" (17) to rebellion. In his attempt to prove to Helena that the robots do not need or desire any form of civil rights, Domin begins by explaining the rationale behind their creation:

Young Rossum successfully invented a worker with the smallest number of needs, but to do so he had to simplify him. He chucked everything not directly related to work, and in so doing he pretty much discarded the human being and created the Robot [...] Robots are not people. They are mechanically more perfect than we are, they have an astounding intellect-tual capacity, but they have no soul. (9)

From the beginning, then, the impetus for creating robots is enslavement through labor. Also from the beginning, Domin positions the robots as soulless and inhuman. Dominant political and social groups throughout history have always employed a similar rhetoric in the process of enslaving other humans (or animals, for that matter), but this justification seems more easily acceptable when applied to robots—we create them (not god), therefore we have the right to control them. Indeed, Čapek utilizes "the soul" throughout the play as an abstraction of the es-

sence of humanity and morality, a trend that is still prevalent in contemporary SF. This need to locate an exclusively human essence is undermined by Hegel's own definition of the concept: "Essence is infinity as the supercession of all distinctions, the pure movement of axial rotation" (106, emphasis in original). In other words, essence is neither fixed nor exclusive to any particular concept of itself. As Jameson writes, "The Master/Slave dialectic is then to be grasped as a play of essential and inessential, which is however already a unity of opposites" (92, my emphasis). Here, Jameson's assertion of the inherent/inevitable collapse of perceived difference anticipates my own sublation of the M/S dialectic via posthumanism. Čapek plays on the ambiguity of human essence in the Prologue, when Domin confuses Helena by neglecting to tell her that his secretary is a robot and then allowing her to suppose that his board of directors are also robots. This confusion results in a comedic exchange that exposes the difficulty of recognizing "human essence" when robots and humans are physically indistinguishable.

Čapek hints at the inevitable loss of control (Mastery) over technological creation in the Prologue, when Dr. Hallemeier admits to Helena that "[o]ccasionally they [the robots] go crazy somehow [...] We call it Robotic Palsy. All of a sudden one of them goes and breaks whatever it has in its hand, stops working, gnashes its teeth [...] Evidently a breakdown of the organism" (19). Helena insists that this "Robotic Palsy" is evidence that the robots possess souls, but the Rossum directors dismiss her suggestion as naïve and laughable. Domin then goes on to outline what he sees as the purpose and eventual telos of robot labor, claiming, "Yes, people will be out of work, but by then there'll be no work left to be done. Everything will be done by living machines. People will only do what they enjoy. They will live only to perfect themselves" (21). Čapek juxtaposes Domin's utopian vision with that of Alquist, the builder, who reminds the

company's president, "there was some kind of virtue in work and fatigue" (21). Alquist's statement here foreshadows the Hegelian motion of the rest of the play, positioning labor as an essential component of full subjectivity and thus predicting the eventual mastery of the robots. As Hegel posits:

The *truth* of the independent consciousness is accordingly the servile consciousness of the bondman...But just as lordship showed that its essential nature is the reverse of what is wants to be, so too servitude in its consummation will really turn into the opposite of what it immediately is; as consciousness forced back into itself, it will withdraw into itself and be transformed into a truly independent consciousness. (117)

Hegel's supposition that true consciousness can only be achieved by means of enduring bon-dage and transforming oneself through work is essential for understanding the rest of the play. Jameson suggests that for Hegel (as opposed to Marx), "[T]he ethos of work [...] can be said to be metaphysical rather than historical, in the sense in which it registers what seem to be philosophical -isms and worldviews, rather than conjunctures and situations" (68). Hegel's positive positioning of servitude therefore supports my interpretation of Rossum's robots not as a dehumanized proletariat, but instead as newly constituted subjects who achieve a form of anthropogenesis as a consequence of forced labor.

After the Prologue characterized by a tension between Domin's grand social promises and Helena and Alquist's ethical concerns, Act One of *R.U.R.* jumps ten years into the future. Helena is now married to Domin and adored by the rest of the directors, who all attempt to shield her from the reality that Rossum has lost control of its creations. Helena finds a newspa-

per and learns that not only have the robots unionized, but human women all over the world have stopped bearing children. When she asks Alquist to explain the sudden global infertility, he tells her, "Because human labor has become unnecessary, because suffering has become unnecessary, because man needs nothing, nothing, nothing" (35). Here, Alquist suggests that all of humanity has assumed the Hegelian position of idle lords (both physically and ontologically): their infertility is a metaphor for their lack of manual productivity.⁷

Before the global robot rebellion induces the first narrative techno-apocalypse, Čapek represents the struggle for Hegelian recognition on a smaller scale via an interaction between Helena and Radius, a newly self-aware robot. Radius tells Helena, "I will not work for you [...] you are not like robots. You are not as capable as Robots are. Robots do everything. You only give orders—utter empty words." He then goes on to say, "I do not want a master. I know everything [....] I want to be the master of others" (37). Helena, desperately searching for common ground, tells Radius that he could be "in charge of many Robots," but he replies, "I want to be the master of people" (37, my emphasis). Horrified, Helena suggests that Radius has gone mad, and he responds with the ultimate Hegelian self-sacrificial gesture: "You can send me to the stamping-mill" (37).8 This brief but crucial scene demonstrates the three key motivations of the M/S dialectic. First, Radius expresses the laborer's realization of the extent of his power through his work. Second, he asserts his desire to be recognized as a Master. Third, he is willing to risk his own life for the principle of full recognition. Radius's process of becoming thus mirrors Hegel's assertion that "the bondsman realizes that it is precisely in his work wherein he

⁷ Hegel: "What now really confronts [the lord] is not an independent consciousness, but a dependent one. He is, therefore, not certain of *being-for-itself* as the truth of himself. On the contrary, his truth is in reality the unessential consciousness and its unessential action" (117, emphasis in original).

⁸ The "stamping mill" is the place where "malfunctioning robots" are destroyed (i.e. killed).

seemed to have only an alienated existence that he acquires a mind of his own" (119, my emphasis). So, while the humans' Mastery confines them to the Hegelian position of idle lords,

Rossum's robots enjoy the role of the bondsmen full of potential to self-actualize through their labor.

Just as Alquist's plea to Domin in the Prologue about the value of work foreshadows the techno-apocalyptic events of the rest of the play, Jameson asserts that "the Master [...] is always secretly menaced by his own deeper inessentiality and by the essential work, fear, and production of the Slave" (92). Jameson also argues that the Master not only worries about the Slave during his reign of power, but that "the recognition of the Slave as an existence and a danger [...] precedes the consciousness of the Master as an organized ideology" (91, my emphasis). Thus, the precarious, unstable nature of the M/S relationship is inherent even before its inception, a point that Čapek highlights through the temporal juxtaposition of the Prologue and Act One. Jameson's supposition also helps to explain current cultural anxieties about robots: as we enslave them (which we are clearly beginning to do), we can already anticipate their rebellion. This fear of inevitable loss of human Mastery is a result of the ontological insecurities described above, but it is further perpetuated by the abundance of cultural narratives that demonstrate the event of robot rebellion.

The board of directors soon learns that the unionized robots have decided to exterminate all humans and claim their status as rightful masters of the world. After weeks of isolation on the production island with no incoming boat traffic, a mail ship arrives carrying only pamphlets bearing the following message, which Domin relates to the group:

'Robots of the world! We, the first union of Rossums Universal Robots, declare man our enemy and outcasts in the universe' [...] They go on to assert that they are higher than man on the evolutionary scale. That they are stronger and more intelligent. That man lives off them like a parasite [...]'Robots of the world, you are ordered to exterminate the human race. Do not spare the men. Do not spare the women [...] To be carried out immediately upon receipt of these orders.' (47-48)

The content of the pamphlet's message closely resembles Radius's rhetoric during his interaction with Helena a few pages earlier. The pamphlet further invokes Hegelian M/S dialectical components by incorporating a reversal of the human's earlier rhetoric: the robots now explicitly claim the human as the subaltern Other ("outcast"). The fact that Domin only glosses certain sections of the pamphlet indicates not only his obvious unwillingness to accept the robots' argument, but also suggests an implicit capitulation that corroborates Jameson's supposition of the Master's preexisting knowledge of his own eventual defeat. Immediately after discovering the pamphlets, Act One concludes when the factory whistle blows at an unscheduled moment—"The signal to attack" (49), Domin surmises. Thus begins the first robot rebellion and the first techno-apocalypse in SF narrative. Of course, like all such narratives to follow, the remaining humans do not give up without a fight.

Act Two, which ostensibly represents the last stand of human civilization, also serves as Čapek's engagement with the human reaction to the usurpation of their role as Masters. Whereas more recent examples of robot rebellion focus heavily on the physical battle (violence sells, after all), *R.U.R.* presents a philosophical struggle to understand the cause of the techno-

apocalypse. As the various members of the board point fingers in different directions, Alquist sums up their ruminations:

I blame science! I blame technology! Domin! Myself! All of us! We, we are at fault! For the sake of our megalomania, for the sake of somebody's profits, for the sake of progress, I don't know, for the sake of some tremendous something we have murdered humanity! So now you can crash under the weight of all your greatness! No Genghis Khan has ever erected such an enormous tomb from human bones. (56)

Alquist's outburst here sets the narrative precedent for the realization of human vanity as the impetus for the destruction of civilization. This passage suggests that through the quest for power and Mastery, humans bring about their own destruction. At this point, the Hegelian logic upon which I have been relying must take its first explicitly posthuman turn. Until now, the M/S dialectic has only been mapped on to human/human relationships, even if one group rhetorically receives a "nonhuman" status. When translated into a human/artificial subject scenario, the M/S dialectic no longer functions only as a way to interpret the interactions of various socio-historical groups, but it becomes a means of analyzing the fundamentals of subjectivity as they might apply to nonbiological persons. So, when Alquist alludes to Genghis Khan in the above passage, suggesting that his tyrannical destruction was nothing compared to the effects of the Rossum project, he thus sets the techno-apocalyptic scenario apart from all other historical examples. Jameson, though not speaking in terms of artificial subjectivity, does suggest that the M/S dialectic may have new kinds of applications, writing, "In the case of contemporary or

⁹ See Sybol Anderson, *Hegel's Theory of Recognition: From Oppression to Ethical Liberal Modernity* (2009) for a thorough application of Hegel to various social and political situations.

postmodern identity politics, recognition secures the access of the hitherto victimized or oppressed group to the acknowledged status of a new player within an ongoing social system" (90). Jameson's emphasis on the mutability of social hierarchies and the way that such changes also affect paths to recognition supports my own interpretation of the M/S dialectic in its potentially posthuman form. If social systems are constantly in flux, then so are our conceptions of subjectivity and the corresponding ethics of recognition.

Čapek returns to the concept of the soul in Act Two in order to offer an explanation for the robot rebellion, while again abstractly conceptualizing the essence of humanity. Helena admits to the group that she begged Dr. Gall to "give the Robots souls" (57). She tells Domin, "I thought that...if they were like us they would understand us and they wouldn't hate us so---if they were only a little bit human!" (58). Domin responds, "No one can hate more than man hates man! Transform stones into people and they'll stone us!" (58). Domin's observation fits neatly into the Hegelian assumption that part of the motivation behind the M/S confrontation lies in the initial process of self-formation. Hegel writes that when "[s]elf-consciousness is faced by another self-consciousness; it has come out of itself. This has a twofold significance: first, it has lost itself, for it finds itself as an other being; secondly, in doing so it has superceded the other, for it does not see the other as an essential being, but in the other sees its own self" (111). This process seems to be precisely what happens to Rossum's robots: when they become "more like people" (38), they concordantly seek to distinguish themselves from the external and position the Other (in this case, humans) as inessential. Like humans, these soul-bearing and thus self-conscious robots react to their Slave status as any potential Hegelian subject vying for recognition will—by overthrowing their Masters. The rest of Act Two consists of the characters scrambling for some mode of defense against the robots, while only Alquist resigns himself to death. Unfortunately for him, after the robots kill Helena, Domin, and the rest of the board of directors, Radius orders the other robots to spare Alquist, who then assumes the role of the necessary survivor, relegated to the position of Slave for his robot Masters.

Act Three focuses on Alquist's ontological struggle to bear the burden of humanity's mistakes while also attempting to understand the subjectivity of the robots. Meanwhile, the robots have realized that they cannot reproduce without Rossum's formula for production, which Helena impulsively burned in Act Two after learning about the global infertility. At the beginning of Act Three, the robot leader, Damon, pleads with Alquist to help them recreate the formula. Alquist insists that "only people can procreate, renew life, restore everything that was" (74, my emphasis) and blames the robots for destroying all humans. In a chorus of responses, the robots tell Alquist, "We wanted to become people [...] We wanted to live. We are more capable. We have learned everything. We can do everything [...] You gave us weapons. We had to become masters" (74, my emphasis). This theme of the militarization of technology is worth pausing on for a moment, as it will reappear later in my discussions of BSG and Dollhouse. In Wired for War, P.W. Singer, a security analyst, invokes SF narratives to address real robotics issues in contemporary warfare. He points out the consistent historical overlap of scientific fiction and fact, calls for an ethical understanding of potential artificial subjects, but ultimately worries that the human obsession with violence and war will preclude any utopian technological visions. He concludes his massive study by praising human scientific accomplishment and hailing robots as our next great creation, but he adds that "this revolution is mainly driven by our inability to move beyond the conflicts that have shaped human history from the very start.

Sadly, our machines may not be the only thing wired for war" (436). By suggesting that it is the violent nature of *humans* that makes the robot rebellion inevitable, Singer implicitly recognizes that an ethical approach to technology is necessary in order to prevent an eventual technoapocalyptic confrontation.

Just as Singer posits war as inherent to human civilization, Damon likewise points out to Alquist: "You have to kill and rule if you want to be like people. Read history! Read people's books! You have to conquer and murder if you want to be people!" (74). Damon's observation supports the assumption that I made in the introduction that violence, particularly as a result of the M/S dynamic, seems inherent and inevitable in our socio-historical structure. Alquist, still clinging desperately to his humanist ideals, refuses to recognize the robots as persons, maintaining that "[r]obots are not life. Robots are machines" (75). One of the robots responds, "We were machines, sir, but from horror and suffering we've become [...] We've become beings with souls" (75). Alquist does not believe this claim until he witnesses one of the robots willing to sacrifice his life for a female robot—presumably because he does not want to live without her. Alquist interprets this gesture as one of true love, and he encourages the robots to leave the factory, telling them, "Go, Adam. Go, Eve" (84). Alquist then proceeds to recite verses from Genesis, and the play thus ends on a rather trite humanist note, privileging human love as the essence of life and avoiding the more complex questions of subjectivity raised by robot consciousness. Čapek, like the many authors and screenwriters that will follow in his footsteps, lacks access or insight into a more satisfying means of concluding the techno-apocalyptic narrative. Alquist's final soliloquy demonstrates an overblown religious awe that seems incongruous with the secular tone of the rest of the play. Based on absolutely no evidence, Alguist believes

that the love displayed by the two robots means they will be able to reproduce and therefore pass on some kind of human spark. The fact that Alquist is fairly mentally deranged at this point, however, suggests that his elevation of the robots' love is likely a desperate delusion. The conclusion of *R.U.R.*, therefore, in which only one human remains and the robots are (in all likelihood) doomed to extinction, demonstrates the potentially apocalyptic telos of the M/S dialectic.

R.U.R.'s Aftermath: Setting the Stage for Robot Rebellions to Follow

Of course, Capek could never have anticipated that his narrative creations would not only become thematic staples of the SF genre throughout the rest of the century (and continuing today), but also that his depiction of robots would so closely mirror scientific reality of the 21st century. Likewise, Hegel's philosophical project had no need to account for potential artificial subjects, and thus reflects an inherent strain of humanism while still allowing for posthuman interpretations. Contemporary scholars have barely scratched the surface of possible ways to use Hegel in the debate over machine consciousness. One of the few applicable studies, Winfield's Hegel and Mind (2010) presumes to use Hegel to reconfigure philosophy of mind in relationship to artificial subjectivity, but he ultimately remains in a conservative ontological space. Winfield argues that "intrinsic connection is precisely what eludes the mechanical process of inputs by thinking machines [...] As a consequence, none of the reflexivity constitutive of mind can possibly be attributed to machines. For this reason, no machine will ever feel, be conscious, or have desires and emotions" (58). Here, Winfield advocates a thoroughly anthropocentric conception of mind that seems to ignore the fluidity and flexibility of Hegel's depiction of consciousness. After all, Hegel writes that "[t]he realized purpose, or the existent actuality, is movement and unfolded becoming; but it is just this unrest that is the self" (12, my emphasis). In other words, "unrest" is not only an aspect of subjectivity, but in fact the essence of it. Winfield also ignores the fact that cybernetic models and artificial subjects are in a constant state of evolution and flux as a result of rapid technological advancements: rather than using scientific possibility as an entry point for understanding consciousness, he dismisses artificial subjectivity altogether. He commits to a binary conception of mind function, asserting the "external' teleology of artifacts" in opposition to the "internal' teleology of living things" (50). Winfield's bifurcation of internal and external seems counterintuitive to Hegel's own invocation of this dichotomous relationship. In bring Winfield into the discussion here (despite the fact that his interpretation of mind differs so vastly from my own) in order to demonstrate the lack of progressive Hegelian scholarship taking place on the contemporary theoretical scene and thus to set my own interpretations apart from this conservative appropriation of Hegel, particularly within the discourse concerning artificial subjectivity.

The only study of *R.U.R.* that comes close to recognizing the philosophical implications of Čapek's text is Kamila Kinyon's 1999 article in *Science Fiction Studies*. Despite Kinyon's conclusively reductive understanding of the play as being more about confrontations with death than the formation of subjectivity, she does at least see the need to understand *R.U.R.* "as a carefully constructed philosophical reflection on major epistemological and ethical issues" (379). Kinyon, though invoking Hegel throughout her study, aligns her argument more closely with the notion of the Kantian categorical imperative that "duty should be followed as a formal

¹⁰ Hegel: "[I]t is *for* consciousness that the in-itself of the object, and the being of the object for an other, are one and the same" (104).

principle, for the pure sake of duty itself rather than for a concrete purpose" (380). In order to make her argument conform to her Kantian agenda, Kinyon conveniently ignores certain aspects of the play, leading to an ultimately flawed interpretation of Čapek's message. Kinyon takes the religious conclusion of the play at face value, arguing that in his final monologue, "Alquist recites the Biblical text as a way of regaining faith" (396). As I have already suggested, I see the final lines as undeniably ironic, since the robotic "Adam and Eve" are still sterile machines incapable of biological reproduction. Kinyon does admit that the end of the play "indicates that there is no easy escape from the lordship and bondage relation" (396), but she fails (or refuses) to engage with the implications of this narrative (and philosophical) ambiguity.

In "R.U.R. Restored and Reconsidered," Merritt Abrash begins with the promising assertion that the play "has become a kind of historical artifact, treated with unfailing respect but not as a work of contemporary viability" (184). Unfortunately, Abrash's only imagined solution to this oversight is to scrutinize the discrepancies amongst the various English translations of the play, with a particular emphasis on the Novack version first released in 1990. Abrash's ultimate thesis, derived from one vague line in a Čapek interview, is that "the play's true concern is with the nature of not robots, but of humans" (190). He goes on to conclude that "while in the history of science fiction the appearance of R.U.R. was a major event, the play is not a major work of science fiction thought" (191). This seems to me to be a rather counterproductive distinction to emphasize, especially considering the effect that R.U.R. clearly has on countless narratives that follow it. In my opinion, Čapek's ignorance of his own prescience (i.e. his inability to predict that humans would create artificial subjects that closely resemble his fictive ro-

bots) is irrelevant when considering the play in the broader context of the SF genre and the popular cultural imagination.

Čapek's narrative precedent for robot rebellion, along with its problematic and unsatisfying conclusion, has been continually recycled throughout some of popular culture's most recognizable SF narratives. The prevalence of the robot rebellion trope fuels cultural anxieties about technological progress, reinforces the human/nonhuman binary, and promotes a simplistic humanist telos that struggles to move beyond the simple "love conquers all" solution to which Čapek reluctantly resorts in *R.U.R.* Robert Geraci writes of 20th century SF, "Technology promises salvation on the one hand while threatening damnation with the other. This coincidence of opposites appears most prominently in depictions of intelligent robots" (967). The cultural pervasiveness of the robot as ambiguous Other can be deconstructed systematically through an engagement with posthuman theory and progressive SF narratives that look to hybrid notions of subjectivity as a means of negotiating ontology in a historical moment characterized by rapid technological change.

Neil Badmington begins his introduction to *Posthumanism* (2000) by analyzing a cultural moment that changed the way humans thought about technology: *Time* magazine's 1982 decision to bestow its "Person of the Year" award to "The Computer." Badmington invokes this moment in order to illustrate the astonishing speed with which technology both infiltrates our lives and shapes our conceptions of subjectivity. To update this anecdote, during the same week that Watson made his *Jeopardy!* debut, *Time* magazine's cover featured a pale, shaved human head with a computer wire and bright green light protruding at the base of the neck: "2045: The Year Man Becomes Immortal." The image and caption correspond to the feature

article on Ray Kurzweil and the Singularity Movement, in which Lev Grossman offers a detailed account of the growing futurist conception that computer intelligence will inevitably surpass that of humans and change civilization as we know it. Kurzweil suggests that "[H]uman progress is exponential [...] rather than linear [...] [and that] exponential growth is seductive, starting out slowly and virtually unnoticeably, but beyond the knee of the curve it turns explosive and profoundly transformative" (Kurzweil 10). Hegel also imagines such "singular" moments in history: "The frivolity and boredom which unsettle the established order, the vague foreboding of something unknown, these are the heralds of approaching change. The gradual crumbling that left unaltered the face of the whole is cut short by a sunburst which, in one flash, illuminates the features of the new world" (7). These two passages encourage an understanding of historical change as nonlinear and often marked by important (and sometimes unexpected) moments that force paradigmatic shifts in the way that we conceive of the world. Both the recent *Time* magazine article and Watson's victory on Jeopardy! contribute to a rapidly expanding discourse informed simultaneously by technological reality (via the scientific community) and representations of technological possibility (via popular culture). Posthumanism draws on this relationship between science fact and fiction as a way of comprehensively understanding change and reaction to change. In the next chapter, I will outline some of the most useful posthuman theoretical scholarship for addressing artificial subjectivity before analyzing BSG and Dollhouse as narratives that encourage a progressive conception of ontology in response to humanity's increasing dependence upon and integration with technology.

2 Posthuman Television

Posthumanism and Artificial Subjectivity

As I suggested in the introduction, the definition of posthumanism is by no means fixed, but instead highly contested within contemporary theoretical discourse. Like other "-isms," a great deal of scholarship in the field deals primarily in attempts to describe, inscribe, and prescribe the tenets of posthumanism. The varied and disparate accounts of posthumanism and its theoretical project make any singular interpretation of the subject impossible. Therefore, what I present here as the fundamental framework of posthuman theory is the result of my own forays into the abundant discourse and a deliberate assembly of what I deem the most engaging and fruitful contributions to the discussion. I will also direct my understanding of posthumanism specifically to the issues surrounding artificial subjectivity, although I hope to demonstrate that the flexibility of this theoretical lens is a useful address to a variety of ontological and epistemological questions. For the purposes of this thesis, the most fundamental posthuman theme is destabilization of identity, a process that Badmington and others argue has been occurring incrementally since the height of humanist philosophy during the Enlightenment. Heliocentrism, Darwinian evolution, and Freudian psychoanalysis all represent significant signposts on the path to posthumanity. I argue that artificial subjectivity is the next major destabilizing event: while I do believe (like Hayles and many others) that we are already posthuman but simply have failed to recognize and embrace it on a grand cultural scale, I posit that the advent of advanced artificial subjects will cause a tear in the fabric of humanism that will be impossible to ignore.

Although some scholarship laments the elusiveness of a monolithic, capital "P" posthumanism, I see the field's interdisciplinary fluidity as essential for confronting our rapidly changing position as postmodern, postindustrial, postsecular subjects. Since all "post-" "-isms" are inevitably linked to and interacting with their prefixless counterparts, a brief definition of humanism then serves as a logical starting point here. It is quite telling that Badmington, throughout all of his attempts at "Approaching," "Theorizing," and "Mapping" posthumanism, ¹¹ cleverly evades *defining* it outright. Yet, he feels quite comfortable defining his subject's precursor and source, offering this succinct account:

As I understand it, humanism is a discourse which claims that the figure of 'Man' (sic) naturally stands at the centre of things; is entirely distinct from animals, machines, and other nonhuman entities; is absolutely known and knowable to 'himself'; is the origin of meaning and history; and shares with all other human beings a universal essence. Its absolutist assumptions, moreover, mean that anthropocentric discourse relies upon a set of binary oppositions, such as human/inhuman, self/other, natural/cultural, inside/outside, subject/object, us/them, here/there, ac tive/passive, and wild/tame. ("Mapping" 1345)

Allow me to add "Master/Slave" to that list of binaries. To extrapolate, the *post*humanist project thus begins with a resistance to essentialism, absolutism, anthropocentrism, and binary logic—posthumanism is the fundamental decentering of the human(ist) subject. Perhaps the reason why Badmington finds it easier to define humanism than its "post-" lies in the fact that

¹¹ Badmington: "Introduction: Approaching Posthumanism" (2000), "Theorizing Posthumanism" (2003), and "Mapping Posthumanism" (2004).

humanism has acquired an *ideological status*: even as it emerges in various incarnations throughout history, a humanist framework encapsulates centuries of dominant worldviews. Likewise, even as posthumanism is responding to and interacting with that ideology, it aspires (in its most effective forms) to resist definition and thus association with a particular doctrine. Rather, if posthumanism can be used as a *discursive frame* that begins with some basic antihumanist (and anti-anthropocentric) assumptions, definitions proliferate and allow for a productive, interdisciplinary, and pluralistic discourse.

As I began to address in the first chapter, SF narratives—particularly those dealing with artificial subjectivity—often work *against* the humanist conceptions outlined by Badmington in the above passage to form posthuman representations of the social order. In fact, many scholars of posthumanism turn to SF narrative as a vehicle for addressing the ontological and epistemological questions raised by the demise of the human subject. Hayles' work in particular lays the groundwork for blending discussions of cybernetic reality and its narrative counterparts to focus on the specific implications of thinking machines and disembodied consciousness. The interdisciplinarity of her work is evidenced by the title of her seminal and ubiquitously cited book, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999), in which Hayles describes "the posthuman view" using four elements:

First, [it] privileges informational pattern over material instantiation [....]

Second, [it] considers consciousness [...] as an epiphenomenon [...] Third,

[it] thinks of the body as the original prosthesis [...] Fourth, and most im

portant, [it] configures human being so that it can be seamlessly articulated with intelligent machines [...] there are no essential differences or

absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals. (2-3, my emphasis)

Hayles' goes on to provide an accessible history of the development of cybernetics throughout the 20th century, meanwhile considering how theories of information change our fundamental epistemological models and how AI and AL challenge essential human subjectivity. Clearly, Hayles has a much more specific conception of the posthuman than does Badmington, illustrating one in the variety of illuminations made possible by presuming the end of humanism and then imagining what that means. The posthuman theoretical project was still relatively nascent when both Hayles and Badmington made their first fundamental contributions to the field (1999 and 2000, respectively), and each have continued on separate but nonetheless related paths. While Badmington's subsequent scholarship concerns alien (extraterrestrial) Others (Alien Chic, 2004), Hayles continues to investigate the relationship between humans and machines. In My Mother Was a Computer: Digital Subjects and Literary Texts (2007), Hayles addresses her earlier work and updates the basis of her project. Recognizing the exponential rate of cybernetic advancement, she writes that "In the twenty-first century, the debates are likely to center not so much on the tension between the liberal humanist tradition and the posthuman but on different versions of the posthuman as they continue to evolve in conjunction with intelligent machines" (2, my emphasis). While some scholars continue to find Hayles' contention of an assumed posthumanity overly presumptuous, ¹² I too cannot help but observe that humanism's ideological frame seems empty and defunct in the face of science. Accuse me of

¹² See Cary Wolfe, What is Posthumanism? (2010).

techno-elitism if you must, but personal and global technologies (even if only *currently* accessible to a certain demographic) are changing the world for everyone.

Hayles speaks of what she calls the "Computational Universe," a concept that "works simultaneously as means and metaphor in technical and artistic practices, producing and also produced by recursive loops that entangle with one another and with the diverse meanings of computation as technology, ontology, and cultural icon" (4, her emphasis). Hayles' assertion that analysis can take place on both metaphorical and existential levels at the same time once again informs my own project here of using narrative symbols to decode the current cultural moment. Hayles engages in extensive literary analysis to build her argument, just as I will soon turn to televisual narrative to investigate the posthuman possibilities of human/machine hybridity. Gordon Calleja picks up on the Haylesian strand of posthumanism by situating the emergence of the posthuman as a response to the fact that "The realm of humanity's organic purity is under heavy theoretical fire by technological advancements in genetic engineering and nanotechnology, not to mention artificial intelligence and a number of theorists in philosophy of mind and neuropyschology that see the human mind as nothing more than a highly advanced machine" (6). Calleja uses the figure of the rhizome, "a system made up of linked points, without a hierarchy or centre, forming a multiplicity with no beginning, center, or end" (7) as a means of conceptualizing the posthuman. By reigning in the implications of key discoveries in various scientific disciplines, Calleja offers a grounded representation of posthuman reality. Like Hayles, he asserts that the digitalization of information changes the way that culture and subjectivity are conceived and that this paradigmatic shift announces posthumanity. "The posthuman," Calleja concludes, "points to another layer in the history of homo sapiens which although

extending out of the previous layer of linear inscription, displaces it due to the emergent layers' nonlinear nature" (13). This insistence on the disruption and subversion of linear historical models—as well as the relationship between nonlinearity and posthuman subjectivity—will become especially important when analyzing both *BSG* and *Dollhouse*.

While scholars of posthumanism do not hesitate to employ literary and film texts to engage with their theoretical discourse, posthuman analyses of television shows are still quite rare. This oversight is likely due in part to lingering notions of television as a degraded mass media format that is less concerned with narrative quality and more concerned with advertising sales. As a burgeoning theoretical field, then, perhaps posthumanist scholars fear that bringing television into the equation could jeopardize the seriousness of the discipline. In fact, Manuela Rossini draws a distinct line between what she refers to as "popular posthumanism, which simply redresses the liberal-humanist mind/body split in postmodern chic and welcomes the turning of human beings into information patterns without bodies" and a "critical posthumanism, which tries to avoid a dualistic approach to human ontology and emphasises the material instantiations and incorporations of information" (27-28, her emphasis). 13 I argue that these two definitions are far from mutually exclusive, and furthermore, it is the overlap and interplay of popular representations and critical analyses that forms the most important aspect of posthumanism. I would also venture to assert that the more popular the narrative, the more significant its cultural impact. If posthuman scholarship is to infiltrate nonacademic platforms (which it should strive to do), popular narrative is the best way to forge that relationship. The inclusive discourse that results from linking critical theory to popular culture becomes a construction site

¹³ Seaman makes a similar distinction between "popular" and "theoretical" posthumanisms (247).

for posthuman ethics. So, I turn to *BSG* and *Dollhouse* in an attempt to describe a conception of posthuman television.

Cylons, Humans, and Hybrids

Media scholars and the relatively nascent field of "Television Studies" are certainly attempting to rewrite the "boob tube"'s role in culture, as cable and broadcast networks continue to offer increasingly more complex and substantive narratives. Likewise, this thesis seeks to map the televisual posthuman onto two particularly intricate narratives, each of which invokes the Hegelian M/S dialectic; but rather than offering the traditional humanist endings of other robot rebellion narratives, these series subvert the binary opposition of human/nonhuman and sublate the dialectic by endorsing posthuman hybridity. The 2004 reboot of SF cult classic Battlestar Galactica (1978) illustrates a shifting thematic agenda within the SF genre, especially when considered in opposition to its precursor. In a recent roundtable discussion on the future of SF television, part of a conference organized by the media studies journal Flow TV, I posited that there is an evolution occurring within the genre that is comprised of four basic elements: mainstream appeal, generic hybridity, non-alien antagonists, and temporal immediacy. 14 In regards to the first two elements, which relate primarily to audience acquisition and popularity, the BSG reboot series shirks the anachronistic settings and costumes of the original in favor of a sleek and sexy aesethetic and relatively high budget special effects. Although it aired on a narrowcast cable channel, Sci-Fi's BSG enjoyed high ratings uncharacteristic of most SF series. The show's broad appeal was also a result of its incorporation of elements from other genres such

¹⁴ My position paper for this roundtable is available for download at http://www.flowtv.org/conference/schedule.

as action/adventure and survival/thriller. In regards to the latter two thematic elements of "new" SF, the original *Battlestar Galactica* series takes place circa the year 7322, and the cylons are a malevolent *alien* race that builds robot soldiers. In the re-imagined series, the mechanical antagonists called cylons are instead products of their human creators, thus positioning the narrative as a story of robot rebellion. Furthermore, the series finale reveals that the narrative action, tacitly assumed throughout the series to be occurring in the future, actually takes place 150,000 years in the past. This temporal revelation (which I will discuss at length later) highlights the relative and cyclical (read: *nonlinear*) nature of time and civilization and confirms the immediacy of the narrative. Overall, the changes that occurred within the narrative of this franchise reflect a broader thematic transition in SF that can be seen in numerous contemporary series and that drives my interest in this evolving genre and the construction of what I perceive as posthuman television.

BSG begins with the techno-apocalypse. In the first scene of the miniseries, explanatory on-screen text provides the basic narrative exposition:

The Cylons were created by man. They were created to make life easier on the twelve colonies. And then the day came when the Cylons decided to kill their masters. After a long and bloody struggle, an armistice was declared. The Cylons left for another world to call their own...No one has seen or heard from the Cylons in over forty years.

The knowledge of the First Cylon War as a failed attempt at the M/S confrontation thus frames the narrative in Hegelian terms. ¹⁵ The miniseries goes on to depict a massive nuclear assault on the Twelve Colonies of humanity. ¹⁶ This attack decimates the human population, and the survivors band together into a small fleet of ships on the run from the cylons. The only remaining military vessel is the Galactica, which was only able to evade the cylon attack because of its outdated technology compared to the other ships in the Colonial Fleet. The ship's captain, William Adama, is at the outset the ultimate humanist: he fought in the First Cylon War, he rejects technology in favor of instinct, and he instinctively *hates* his cylon enemy. Unfortunately for Captain Adama and the rest of the surviving humans, identifying the cylon enemy is quite a bit more complicated than it was 40 years earlier. Whereas the Centurian Cylon models (giant metal robots) that fought in the first rebellion were easily recognizable nonhuman Others, the Cylons who return to the Colonies at the beginning of the series are androids—"skinjobs"—and they "look and feel human" (intro titles). ¹⁷ This revelation is particularly unsettling to the humans, as it complicates their previous understanding of artificial subjects.

Throughout the series, the Cylon/human juxtaposition offers fruitful ground for exploring the limits and possibilities of subjectivity, while the narrative structure demands a constant

The short-lived prequel series *Caprica* (2010-2011) takes place 58 years prior to *BSG*. The narrative chronicles the creation of the Cylon Centurians. In one key episode, Daniel Greystone, the scientist responsible for Cylon creation, pitches his invention to his company's board of directors: "It's a more than a machine. This Cylon will become a tireless worker who won't need to be paid. It won't retire or get sick. It won't have rights, or objections, or complaints. It will do anything and everything we ask of it without question" ("There is Another Sky"). Note how this rhetoric resembles that of Domin's in *R.U.R.*The Twelve Colonies consist of twelve neighboring planets, referred to as "colonies," because their historical mythology recounts of a migration from their home planet, "Earth." After the cylon attack on the colonies, Adama attempts to instill hope in the survivors by promising to lead them back to "Earth." There are eight "skinjob" models, designated by numbers ("The Sixes," "The Twos," etc), and there are thousands of physically identical copies of each model. These humanoid cylons are effectively immortal, since their individual consciousness is simply downloaded into a new body after death—a process they

refer to as "resurrection."

ethical repositioning on the part of both characters and viewer. Meanwhile, the significant Hegelian undertones of the extended battle for the survival of humanity in the wake of robot rebellion persist, seemingly endorsing a binary "Us versus Them" interpretation of the narrative. The humans clearly enjoyed a position of Mastery over their cylon Slaves, who rebelled once but failed to acquire subjectivity and fled without completing the battle for recognition. With the techno-apocalyptic rebellion that begins the miniseries, the cylons dethrone the humans as Masters. The surviving humans then become Slaves to the dominant power of the cylons, since all of the fleet's actions are reactions to/dependent upon the cylons. Yet, despite their military subordination to the cylons, humans attempt to maintain a position of ontological superiority by refusing to recognize cylons as subjects, resulting in a complicated M/S entanglement. The initial narrative positioning of the show is then quite Hegelian, but the binary conception of good human and evil cylon that drives the early action of the show progressively crumbles, revealing a broader definition of subjectivity by the end of the series and encouraging major ethical revisions concerning human relationships with technology.

Initially, human sexual reproduction versus cylon resurrection serves as a crucial point of differentiation between the two groups, but it quickly becomes a vehicle for introducing the concept of hybridity as a means of escaping a cycle of violence and hatred towards the Other. When a female cylon (Athena) becomes impregnated by one of Galactica's officers (Helo), she defects from her cylon duties and joins the ship's crew. Their child Hera's symbolic position as the first human/cylon hybrid complicates the person versus machine binary and eventually reveals the potential of posthumanity. At first, however, Captain Adama and the acting president of the Colonies, Laura Roslin, view Hera as a clear threat to humanity. In the season two epi-

sode, "Epiphanies," on the verge of dying from cancer, Roslin orders the abortion of Athena and Helo's then-unborn child, blindly asserting its hybridity as a danger to the fleet and completely refusing to acknowledge its human status. As Adama corroborates, "If it's good for the cylons, it must be bad for us." In the same episode, however, scientist Balter discovers that the same genetic mutations that sparked Roslin's insistence on the abortion can actually save her life. Indeed, an injection of Hera's fetal blood cells eradicates Roslin's cancer in a matter of hours, forcing the president to reconsider the value of the child. At this moment, Roslin, the leader of the human race, becomes a (however reluctant) cylon/human hybrid. Later, Roslin takes on a mothering role towards Hera (one shared by several characters) bound by a need to "protect the child" at all costs, without fully understanding why.

Another important moment in the continuum of cylon representation across the narrative comes in the season three episode "A Measure of Salvation," when the opportunity to annihilate the cylons with a mysterious virus sparks a heated debate amongst Adama, Roslin, Lee (Adama's son), and Helo. When Helo suggests that this act would constitute genocide, Lee responds, "They're not human. They were built, not born. No fathers, no mothers, no sons, no daughters." Helo bluntly replies, "I had a daughter. I held her in my arms." It is extremely telling that this late in the narrative, even after fighting at Athena's side, Lee still cannot negotiate the cylons as persons—supposedly because of their alternative biology. I believe that behind Lee's statement lies the real source of fear and hatred towards the cylons: their immortality through resurrection. As much as the cylons envy the human's ability to "follow God's com-

¹⁸ At this point in the narrative, Helo and Athena believe that Hera is dead. After the child was born prematurely, Adama and Roslin decide to fake Hera's death and give her to an adoptive mother until they can determine the child's significance.

mandment of procreation" ("The Farm"), the humans surely also envy the cylons' immortality, using it as a means of relegating them to mere machines and denying the possibility of individual consciousness. This ontological difference is the reason why it is not until the rebel cylons help the humans destroy the resurrection hub that integration becomes possible. This difference also explains why the two groups are at a Hegelian impasse: the cylons cannot risk their lives for recognition, because the act is meaningless if they will be automatically resurrected. The humans, therefore, cannot recognize the cylons as subjects.

Perhaps the most important narrative moment in the shifting juxtaposition of human and cylon occurs at the end of season three, when four of the show's most trusted characters (Chief Galen Tyrol, XO Saul Tigh, assistant to the president Tory Foster, and resistance fighter Sam Anders) discover that they are cylons and "have been from the start" ("Crossroads, Part Two"). 19 The fear that has been propagated all along, that anyone could be a cylon, becomes painfully crystallized and forces the audience to realign their moral compasses. Confused and ashamed by their self-discovery, these characters decide to hide their true identities from the rest of the crew until they can understand the meaning of their cylon origins. This plot device produces several episodes rife with dramatic irony, as the viewer watches the four cylons attempt to come to grips with their identities while guiltily interacting with their friends, lovers, and crewmembers. The Final Five revelation serves as a precursor to the drastic ontological reveal of the finale: the viewers sympathize with these major characters, so the knowledge of their true identities challenges the assumption of cylons as inherently evil in their Otherness.

¹⁹ These characters represent four of the members of the "Final Five," a mysterious group of cylons that is referenced throughout the series. The origin of the Final Five and their significance to the narrative is not revealed until the fifth member, Ellen Tigh, returns to Galactica in season four.

In the pivotal episode "Guess What's Coming to Dinner" (an allusion to the 1967 Sidney Poitier film dealing with interracial marriage), the question of the cylons as persons comes to the forefront when Natalie, the representative of a group of rebel cylons, attempts to form an alliance with Adama.²⁰ Natalie offers to disclose the location of the cylon resurrection hub in exchange for access to the Final Five. She explains her motivation for this alliance to the quorum of Colonial representatives: "Beyond the reach of the resurrection ships, something began to change. We could feel a sense of time [...] We realized that for our existence to hold value, it must end. To live meaningful lives, we must die and not come back." With this gesture, Natalie and her rebels are willing to exchange immortality (i.e. risk their lives) to obtain subjective recognition from the humans. The elimination of this essential difference serves as a crucial point in what eventually becomes a truce and partnership between the cylons and the humans. The emphasis on definitive mortality as necessary for true subjectivity also echoes Hayles' assertion in How We Became Posthuman, "My dream is a version of the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being" (5). While at first glance this attempt to confine the posthuman identity to the mortal coil might seem antithetical, inserting these kinds of limitations into the theoretical framework paves the way for an ethical adoption of posthumanity.

²⁰ At this point, the humanoid cylons have broken into two factions: one that still sees the destruction of humanity as their priority (Ones, Fours, and Fives), the other "rebels" who feel that an alliance with humans is the only path to mutual survival of both species (Twos, Sixes, and Eights). Also at this point, the identity of the Final Five is still unknown to the fleet.

During a hostage standoff with a resurrected Diana²¹ in the episode "Revelations," the fleet finally learns the identities of the members of the Final Five residing on Galactica. Although Adama is at first unwilling to accept his best friend and commanding officer as a cylon, Lee's truce with Diana and the subsequent discovery of the road to Earth convince him and most of the characters that the fates of cylons and humans are inextricably mixed. While the discovery of the 13th colony ("Earth") as a radioactive wasteland disheartens both parties, it also sheds light on the history of the cylons, as Galen, Saul, Sam, and Tory experience flashbacks of their former cylon lives while rummaging through the ruins. Ellen's return to the group a few episodes later in "No Exit" answers a multitude of questions and gives hope for a new and hybrid direction for the fleet. Her explanation of the origin of the Final Five, in which we learn that cylons existed well before the establishment of the Twelve Colonies, complicates the representation of cylons as merely self-replicating machines, since Ellen informs us that the race of cylons on Earth, the fabled "Thirteenth Tribe," were capable of sexual reproduction and genetic differentiation. Ellen speaks of the eight skinjob models as her children, but also reveals that they were the Five's reluctant gift of organic life to the Centurians in exchange for ending the First Cylon War in the colonies 40 years earlier. Upon learning the cyclical history of cylon creation, their relationship to humans and the positive potential of human/cylon hybridity becomes even more apparent.

In the same episode, Ellen explains to Adama and Roslin why Cavil, the leader of the Ones, believes resurrection is a superior form of reproduction: "It's too much for him. The thought that the only hope for the cylon people is this desperate grab for procreation, evolu-

²¹ Diana is a Three model who had a vision of the Final Five.

tion, all that messy biological trial and error." Ellen, on the other hand, firmly believes in Hera as "the hope for a new blended future." While the cylons debate whether or not to remain with the fleet, Ellen corroborates Saul's assertion that "Pure human doesn't work. Pure cylon doesn't work. It's too weak," and they all decide to remain on Galactica. Thus, humans and cylons finally become a united group, searching for a new home while aligning against Cavil and the Four and Five models. Meanwhile, Galactica herself adopts a hybrid nature, as Galen oversees the infusion of a cylon glue-like substance to reinforce the ship's infrastructure. Adama initially refuses to endorse the procedure, but ultimately realizes that Galactica cannot survive without it. The Admiral half-heartedly laments of his ship and home, "She won't know what she is anymore," an assessment that could also refer to human subjectivity. Galactica's identity crisis indeed reflects the grander process of hybridization taking place in the fleet, as countless Twos, Sixes, and Eights integrate themselves as workers, pilots, and soldiers.

Returning to Hera, as I have already suggested, her status as the first cylon/human hybrid encourages a highly symbolic interpretation of her character. Living her first year in relative anonymity with her adoptive mother, her custody then oscillates back and forth between the cylons and Galactica, but she only sparsely appears (in the flesh) onscreen. Despite her age of at least three years by season four, Hera remains almost completely pre-linguistic, allowing the preservation of her symbolic role in the formation of posthuman hybridity. Whereas Cavil sees her as merely "a half-human, half-machine object of curiousity," Ellen insists that "Hera has some meaning that transcends the here and now" ("Daybreak"). The final battle of the narra-

²² Hera's most significant screen time occurs in a series of dream sequences, shared by Roslin, Athena, Caprica, and Hera. These visions enforce Hera's significance, warn of the danger that surrounds her, and insist that the child must be protected.

last battle is waged in the name of a human/cylon hybrid. This struggle culminates in an agreement: Cavil will relinquish Hera and declare a ceasefire in exchange for the Final Five's secret to resurrection. After transmitting most of the data to Cavil's ship, Galen's interruption of the transfer reignites the violence and forces Galactica to make a final emergency jump—to the coordinates that Hera unwittingly drew in a picture and that virtual Starbuck tried to decipher. Their destination is Earth (as we know it), and the fleet then abandons their ships to settle on the planet. Upon Lee's suggestion, the survivors (both human and cylon) scatter across the continents, too weary to wage another attempt at rebuilding civilization. As Lee tells his father, "Our science charges ahead, our souls lie behind." The survivors thus choose to leave their technology behind and to live out their lives at peace with themselves and their loved ones. This might seem like the ultimate humanist conclusion, and if the narrative had ended there, it would have been.

The revelation in the last few moments of the finale that these events have been taking place not in the distant future but 150,000 years in the past subverts any prior interpretation of the narrative. The show becomes a metacultural commentary, embodying its own creed (repeated cryptically throughout the series) that "All of this has happened before, and all of this will happen again." From a Hegelian perspective, the temporal revelation at first suggests a cyclical reading of history in which the players change, but the game remains the same; but when Hera is discovered as the mother of modern humanity, the "mitochondrial eve," the show ends

²³ Starbuck is one of the narrative's central characters. After her apparent death, she returns in some kind of unidentified ontological form. I choose to refer to this incarnation of her character as "virtual Starbuck," as I also refer to questionably corporeal forms of Caprica and Balter as "virtual."

with its most strident appeal for an embracing of posthumanism. Hera's significance finally becomes a reflexive commentary on our own inherently hybrid nature. As Julie Hawk writes, "This narrative device serves to catalyze an ontological shift in the viewer...Part of the effect of the narrative is the viewer's unwitting but inevitable role in the end of the story as always already part cylon" (3). The dissolution of difference effected by this "ontological shift" echoes Hegel's assertion that the goal of self-consciousness is to "supercede this otherness of itself[...] for this other is itself" (11). By projecting a half-cylon ancestry onto the contemporary human (i.e. the viewer), *BSG* succeeds in collapsing the Other into the Self, thus advocating the acceptance of a hybrid posthuman identity.

The temporal and ontological revelations of the finale undermine the peaceful ending of the narrative proper and suggest that human civilization as we experience it is merely conforming to a prescribed pattern. In the final moments of the series, as virtual Balter and virtual Caprica walk the streets of modern day New York City, with evidence of current technological progress saturating the scenery, the real question (and the ultimate challenge) of the narrative becomes, does this have to happen again? *BSG* thus posits a potential exit strategy from the M/S dialectic by revealing the false constructiveness of the human/nonhuman, subject/object ontological division and the skewed ethics that arise out of those juxtapositions. In this post-human turn, "[T]he binary extremes are both rejected in favor of a third space, a space where revisions might be made" (Hawk 13). The posthuman revision made possible through a rejection of ontological binaries points towards an ethical negotiation of technology and a broadened definition of ontology. The final shot of the finale zooms into a television set displaying a

small dancing robot whose shape resembles the cylon Centurians. 24 This shot leads into the closing credits, which roll alongside a montage of clips featuring various forms of artificial subjects, boldly confronting the viewer with cybernetic reality and urging a critical evaluation of our relationship to technology. As for the residual human quest for dominance and Mastery that seems to threaten the ethical fabric of every attempt at civilization, we can find hope in virtual Caprica's parting assertion to the viewer: "Let a complex system repeat itself long enough, eventually something surprising might happen." By referring to civilization as a "complex system," this statement demands an objective interpretation of history, evolution, and ontology. Like Calleja's rhizomatic description of posthuman identity, BSG's narrative structure and content suggest that civilization is a nonlinear rhizome with the inherent potential to reorganize itself in nonhierarchical terms. The posthuman ethics that emerge from BSG are therefore not only concerned with dramatic ontological revisions, but also with sociocultural sustainability. If our current civilization's existence on this planet is indeed a complex system that evolves according to the interactions of its various components, then a paradigmatic transformation of our ethical framework contains the potential to change the system itself. Dollhouse takes up a variety of the most pressing ethical questions posed by recent technological discoveries, while continuing to highlight personal ontological struggle as a key aspect of posthumanity. Although a short-lived series, *Dollhouse* achieves the significant narrative and thematic complexity that exemplifies my conception of posthuman television and aids in the construction of a posthuman ethical discourse.

²⁴ The featured robot is ASIMO, a robot created by Honda in 2000.

The Rossum Corporation

Spawned from cult-favorite television showrunner Joss Whedon, Dollhouse may not have produced the ratings expected of a prime time broadcast series, but the ample critical attention it has garnered recently is evidence of its prowess as a unique and intriguing experiment in SF television narrative. The two twelve-episode seasons, each capped off with an "Epitaph," have generated numerous online discussion forums, an installment in the Smart Pop book series, and a special issue in Slayage, the online Whedon studies journal. The show's bold engagement with contemporary neuroscience and ethics provides fertile ground for explorations of the moral, psychological, and ontological implications of the story. Dollhouse is primarily about the de(con)struction of identity, specifically the humanistic, Cartesian model of mind/body dualism and the pseudo-secular concept of the soul. 25 By depicting a world identical to our own (save a few particular technological advancements), the narrative engages directly with contemporary ethical issues. 26 In secret facilities in major cities throughout the world, a corrupt megacorporation operates "dollhouses" that serve the whims of the extremely wealthy and powerful. The scientists behind the dollhouses have acquired the technology to build, distort, transfer, and erase personalities from human subjects in a matter of minutes. The dolls are "volunteers" who sign well-paid five year contracts to shelve their own personalities on a hard drive. Clients willing to pay an exorbitant fee then rent the dolls, who are imprinted with made-

²⁵ I would venture to assert that as neuroscience reveals the underlying processes of human behavior, it subsequently renders the idea of a soul—and the theological morality associated with it—more or less extant.

²⁶ To name a few examples: bioenhancements, invasive brain scanning, psychopharmacology, mind control, memory manipulation.

²⁷ Viewers eventually learn that most of the dolls are recruited based on various life situations that might make them amenable to taking a five-year hiatus from their consciousness: PTSD, loss of a child, psychosis, etc.

to-order personalities and participate in specially-designed "engagements." When the dolls are not actively engaged, they remain in the dollhouse, their brains in a child-like *tabula rasa* state. The show focuses on the story of the Los Angeles dollhouse and its inhabitants, and it is set in the present day.

Dollhouse contains both direct allusions to Čapek and indirect resonances of the Hegelian M/S dialectic, making the show an ideal text to bring my earlier discussion of *R.U.R.* full circle. The megacorporation that funds the dollhouses and serves as the narrative's primary antagonist is entitled the Rossum Corporation. Rossum co-founder Clyde explains the origin of the company's name to the show's protagonist Echo, "It's from a play. You're not technically robots, but it seemed to fit" ("Getting Closer"). Indeed, there are other contemporary SF narratives that address artificial subjectivity in more traditional robotic terms, but *Dollhouse*'s nuanced approach to subjectivity and its emphasis on the relationship between technological advancements and post-industrial corporate capitalism primes the narrative for an incorporation of my posthuman argument into the topical realm of ethics. My previous scholarship on this show has emphasized the intricate temporal structure of the series as a way of identifying a posthuman narratology.²⁸ Here, I will use some of my previous narrative analysis to examine the thematic components that evoke and eventually sublate the M/S and self/other distinctions.

The show's first season consists of mostly self-contained episodes chronicling the dolls' engagements, particularly those of protagonist Echo. Echo reacts differently to the imprints than do the other dolls, and her process of subjectivization is indeed one of the key themes of

²⁸ "Making Sense of the Future: Narrative Destabilization in Joss Whedon's *Dollhouse*." *Television and Temporality: Exploring Narrative Time in 21st- Century Programming*. U of Mississippi P, forthcoming.

the narrative.²⁹ I am, however, less interested in Echo specifically than I am in the dolls collectively and the ultimate repercussions of the imprint technology. The dolls are clearly positioned as Slaves to their human Masters (Rossum employees), and they also engage in rebellion on both small-scale levels (the characters we know in the series) and on a large-scale in the narrative's techno-apocalyptic counterparts (i.e. the "Epitaph" episodes). When Whedon saw Dollhouse likely facing cancellation at the end of the first season, he commissioned his brother Jed and sister-in-law Maurissa Tancharoen to write the teleplay of the story that would become "Epitaph One," a post-apocalyptic narrative that jumps forward ten years from the action of the first season. This ten-year gap mirrors the temporal shift from the Prologue to Act One in R.U.R., and the difference between the two worlds is equally stark. In season one, the Rossum Corporation and its technology claim to offer personal fulfillment for the individual and scientific progress for the community, 30 but the certainty of a vague and darker purpose underlies the entire narrative. The techno-apocalyptic potential of the imprint technology is first addressed in the sixth episode, "Man On the Street," which uses documentary-style interstitials to present an ethical discourse about the dollhouse from the perspective of various "average Angelinos." In the DVD commentary for this episode, J. Whedon reveals that he considered this episode the true series pilot, because it demonstrated that *Dollhouse* is "about difference of opinion. It's about the things we believe, how we come to believe them, and how we are forced to believe them." The structure of this episode, coupled with Whedon's commentary, emphasizes public

²⁹ See several essays from *Inside Joss' Dollhouse*, especially Julie Hawk's contribution: "More Than the Sum of Our Imprints."

³⁰ The dollhouse is Rossum's under-the-radar operation, but the corporation is also portrayed as the world's leader in various fields of research related to global betterment.

response as an integral component in forging an ethical discourse concerning technology in society.

"Epitaph One" reveals the ultimate repercussions of the imprint technology—large-scale biological weapons sold to the highest bidder. The result is the technoapocalypse: as Topher Brink, the dollhouse's top techno-scientist describes, "One robo-call to a city... And an entire army in a single instant in the hands of any government... Millions programmed to kill anyone who is not programmed to kill." While the potential for such a disaster was first mentioned in the episode discussed above, it is safe to assume that Whedon would likely have prolonged the bleak revelation across many seasons had he enjoyed a different production/network situation. Instead, believing the thirteenth episode to be the last of the series, Whedon ventured to expose the ultimate telos of the story while he still had the chance. "Epitaph One" does not depict the apocalyptic moment explicitly, instead beginning *in media res*, with humanity on its last proverbial leg. In recognizing the inevitably dangerous path that the morally bankrupt, capital-ist-driven scientific community is currently following, *Dollhouse* makes a strident appeal for an ethical negotiation of technological potential as a necessary step in protecting humanity from a self-inflicted downfall.

In "Epitaph One," a band of survivors—called "Actuals" because they retain their original personalities—evades hoards of "Butchers," one of the two subjective results of the massimprinting event. The appellation of Actuals thus presumes an incomplete subjectivity for all non-Actuals, therefore enforcing a binary ontological opposition even in the wake of the techno-apocalypse. The group of survivors stumbles upon the LA dollhouse and uses the imprinting

³¹ "Butchers" are hyper-violent, cannibalistic subjects. "Dumbshows," the other subjective result of the mass-imprinting event, resemble the dolls in their *tabula rasa* state.

chair to access memories that help explain the cause of the techno-apocalypse. One key revelation of these flashbacks concerns the mental disintegration of Topher Brink. *Dollhouse* clearly wants to emphasize the role of unmediated scientific curiosity in bringing about the techno-apocalypse, and Topher's character serves as an apt vessel for conveying the ethically skewed mindset of the corporate science world. The Rossum Corporation groomed him as a genius, instilling and encouraging his belief that he is above all ethical restriction. Therefore, while the Rossum executives are surely the most obvious Hegelian Masters of the story, Topher possesses the power of scientific genius: he controls the fate of the dolls, so he is thus their true Master. Therefore, when "Epitaph One" reveals that Topher's guilt over his role in the technoapocalypse has crippled his sanity, the narrative suggests that the Master has been dethroned, and the slaves—Butchers and Dumbshows though they are—rule the post-apocalyptic wasteland.

In another notable flashback, Adelle, the manager of the LA Dollhouse, argues with Mr. Ambrose, a Rossum executive who has downloaded his personality into one of the Dolls in order to update Adelle on the new company policy of offering permanent imprinting. When she expresses ethical concerns about these "complete anatomy upgrades," he explains, "We've always been above the law [...] only now we are writing it. This will all be legal within a year [...] This is the time to choose, Adele, whether you want to be someone who lives on through the endless epic arc of history, or a quickly discarded, decomposing vessel enriching the soil." Ambrose's statement embodies the potential posthuman impulse towards immortality that defies ethics and accountability. He endorses the permanent usurpation of the bodies of the "volunteers," presumably motivated only by the desire to accumulate more wealth and

power. Ambrose's disturbing logic evokes the suggestion Daniel Dinello makes in his science fiction study Technophobia: "Tortured by the absolute certainty of suffering, growing old, and dying, the mostly white, affluent, male prophets of perfectibility put their faith in technology to save humanity by transubstantiating the organic body" (19). Dinello's insistence on white male affluence as a prominent trait in the posthuman impulse for power certainly holds true in Ambrose's case, and indeed with most of the clients and proponents of the dollhouse. Adelle, however, naively clings to the notion that the dollhouse truly helps people by allowing them to experience their deepest desires; it is not until this moment that she understands that the corporation's purpose has been much darker all along. Ambrose, the emblem of super-capitalist enterprise, seeks money, political control, and global power, and is willing to compromise all concepts of ethics to obtain a kind of superhuman status. He tells Adelle, "Imagine what one man can achieve if he has no fear and will live forever?" Ambrose's focus on immortality represents the kind of megalomaniacal posthumanism against which Hayles warns in her work.³² The narrative places Ambrose's perverse conception of posthuman vision in stark contrast with the more ethically-minded Adelle in order to comment on the necessity of a moral compass as we navigate an increasingly technological society. *Dollhouse* recognizes that with the advent of new forms and applications of technology, new ethical questions perpetually emerge that require a variety of posthuman considerations.

After a chain of events reduces the group of survivors to only two, the remaining characters deduce that they can imprint the body of a traitor with Echo's personality. She knows how to get to a place called "Safe Haven," where people have figured out how to resist the re-

³² This scene also serves as a foil to the moment in *BSG* when the rebel cylons willingly surrender immortality for a chance at recognition.

mote imprinting and where "you die as you were born, heart in concert with the mind." This notion is certainly an oversimplified, idealized humanist impulse, made sympathetic in light of the apocalyptic destruction of subjective unity; but in a bitterly ironic scene, the Echo imprint looks at a picture of her former body and remarks, "I hope we find me alive." "Epitaph One" thus appears to end with a message of humanist striving for reunification of mind and body, but the fact that a posthuman imprint will lead the survivors to Safe Haven complicates this message, thus departing from the typical SF humanist conclusion but still falling short of an explicit posthuman message.

In a surprising decision by the FOX network, *Dollhouse* received a second season and the chance to delve deeper into the ontological issues raised in season one. "Vows," the first episode of season two, capitalizes immediately on the plethora of knowledge revealed in "Epitaph One," beginning a season-long metadiegetic³³ inside joke amongst writers and viewers of the show. The narrative returns temporally to the "present" moment, but incorporates actual scenes from the "Epitaph One" flashbacks and introduces new plotlines that are directly informed by knowledge of future events. In "Vows," one of the dolls torments Topher and questions his control over the technology, and he replies, "I know what I know." This line is a direct quote from the mentally disintegrated Topher of the future, so its (p)reiteration at this moment is particularly emotionally haunting for the viewer. From the beginning of season two, then, the writers are committed to directly confronting the diegetic gaps created by "Epitaph One." As the season progresses, the writers reveal several ethical turning points for Topher, thus filling in

³³ In my analysis of season two of *Dollhouse*, I use "diegetic" to refer to the events unfolding in the central narrative, and "metadeigetic" to refer to the additional narrative layer that results from the viewer's knowledge of "Epitaph One."

the explanation behind his eventual insanity, although without ever completely closing the temporal disparity. In the third episode of season two, "Belle Chose," Topher attempts to perform a remote brain wipe for the first time. This event seems minor, or at least not out of the ordinary, when considered only within the diegesis. The viewer's knowledge of "Epitaph One," however, indicates the extreme significance of this moment in terms of the eventual weaponization of the imprint technology and Topher's direct role in its creation. While brainstorming possible methods of wiping a missing active doll, Topher ponders, "Victor would need to have a phone, I'd need to have a tone, I'd have to get him to answer the phone....Do you have his number?" This scene evokes the earlier (but later) scene from "Epitaph One," when an insane Topher reflects back on the catalyst of the technoapocalypse – a robotic phone call. Moments like these throughout the second season function to remind the viewer of their own knowledge of the future, forcing them to recall and reimagine the content of "Epitaph One." If, as Bruce Clarke observes, "In both the narrative and systemic instances, one discerns interpenetration, a double-feedback loop" (31), then Dollhouse's narrative structure informs its posthuman ontological project of encouraging a hybridized subjectivity. Just as BSG demanded a constant ethical repositioning on the part of the viewer, Dollhouse season two uses "Epitaph One" to create a metadiegesis that challenges the possibility of any stable ethical positions throughout the narrative.

In "The Attic," the spatio-temporal world of "Epitaph One" collides with the story of the dollhouse in 2009 and creates a somewhat tragic metadiegetic moment. In this episode, Echo enters a digitally-constructed dream world where prisoners of the Rossum Corporation are forced to endure their worst nightmare perpetually (meanwhile, their bodies are linked up to a

giant computer mainframe that harnesses their brain power). The Attic is thus a virtual grid of narrative loops, a visual manifestation of systems theory approach to storytelling and to human experience. While most of the prisoners are unaware of their state in the virtual realm, some, like Echo, are able to become aware and escape their loops (i.e. you can only escape the story by realizing that you are a character in it). This might also be a useful metaphor for extricating ourselves from Hegel's sociocultural narrative of the M/S dialectic. As Echo navigates her fellow prisoners' nightmares, she eventually meets Rossum Corporation co-founder Clyde, who was betrayed by his partner and trapped in the Attic. Upon entering Clyde's consciousness, Echo is met with a chaotic post-apocalyptic landscape identical in aesthetic to the setting of "Epitaph One." Viewers learn that Clyde's nightmare loop was performing statistical analysis on the eventual results of the brain imprinting technology, and that all but 3% of his scenarios include the "end of civilization," the depiction of which is projected in the post-apocalyptic setting of his nightmare world. Since viewers know that Clyde's prediction is absolutely true, Echo's insistence on her ability to prevent the apocalypse produces a moment of stark dramatic irony for the viewer. In "Dollhouse's Future History Machines," Kirsten Strayer notes, "While our heroes strove to prevent Clyde's prophecy from coming to pass, we knew that it was the inevitable future" (181). By reminding the viewer of the inescapability of Dollhouse's techno-apocalyptic telos, this episode sets up the final two installments of the narrative proper as ultimately ironic. Indeed, the triumphant image of Echo blowing up Rossum's headquarters in "The Hollow Men" is immediately counteracted by a brief flash to the post-apocalyptic future, with the protagonists gunning down imprinted Butchers. The writers make no attempt to close the temporal gap between the impending techno-apocalypse and the events of season two, leaving myriad questions unanswered and many aspects of the narrative timeline unclear. This lack of diegetic resolution promotes a posthuman reading by rejecting linearity and leaving the narrative open to multiple interpretations.

In the final episode of the series, the narrative jumps back (and forward) to the postapocalyptic diegesis with "Epitaph Two: Return." Picking up where "Epitaph One" left off, this episode gave the *Dollhouse* creators the opportunity to conclude the narrative with some sort of finality. "Epitaph Two: Return" is a techno-apocalyptic redemption story. In his mentally disintegrated state, Topher devises a way to "bring back the world" by reversing the effects of the mass imprinting and restoring everyone's original personalities. Unfortunately, the device needed to accomplish this task is a massive explosive, and it can only be activated manually. So, Topher performs the ultimate act of self-sacrifice in order to make amends for his involvement in precipitating the techno-apocalyptic disaster. He risks his life for subjective redemption rather than recognition: his act makes new subjectivities external to himself possible, thus rewriting the telos of the Hegelian M/S dialectic struggle. The show then ends in a remarkably posthuman fashion: Topher's device restores personalities to their rightful owners, but civilization is still in shambles. The survivors have lost years of their lives with no memory of the things that they have done (or the people they have killed). The redemption narrative is therefore only questionably redeeming: the elements are there (death of main characters, self-sacrifice, hopeful music), but a nagging feeling of loss persists in the final moments of the series. It is safe to assume that the restoration of one's mind/body cohesion is a little less relieving when you wake up years later alone in a pile of rubble or munching on human flesh. In other words, "Epitaph Two" and therefore Dollhouse as a whole refuses a tidy humanist conclusion. In the end of

the narrative, humanity prevails, but emerges permanently altered, disoriented, and disorganized. Other than the handful of Actuals that managed to survive in the techno-apocalyptic wasteland, every person now must come to terms with the fact that their minds have been manipulated and they have lost years of their lives. In portraying a human subject that is decidedly changed, broken, but still redemptive, *Dollhouse* asks us to embrace a posthuman identity as a means of coping with a drastically different world. Furthermore, the remarkably positive posthuman evolution represented by Echo offers an exciting portrayal of the possibilities of a total acceptance and cultivation of the posthuman self. "Epitaph Two: Return" finally confronts the viewer with the message that humankind may prevail – but only after devastating hardship – and it will be permanently altered, dejected, and destabilized.

Conclusion: Practical Posthumanism

After the destruction of the cylon resurrection hub in *BSG*, one of the Eights remarks of her newly acquired mortality: "It's a good thing, because now there's no difference. We can all start trusting each other" ("The Hub"). The Eight's logical connection between the dissolution of difference and egalitarian social interaction exemplifies my posthuman ethical argument. Earlier in this chapter, I suggested that a combination of "popular" and "critical" posthumanisms (Rossini) is necessary in order to address the full range of the theory's implications. I would now like to offer the term *practical posthumanism* to designate this attempt at negotiating a theoretical onto-epistemological discourse with a topical ethical conversation. The motivation behind the posthuman inquiry is inextricably tied to contemporary issues of cybernetics, neuroscience, genome-mapping, biotechnology, etc. In other words, its concerns are immediate,

pressing, and essential to the future of technology in society. As science continues to debunk the mysteries of the universe, secular humanist ethics that position "Man" as Master are no longer relevant. My conception of practical posthumanism is therefore primarily concerned with the type of ethical revision that becomes necessary with the advent of artificial subjectivity and other destabilizing forms of technology. Ideally, practical posthumanism will bridge discursive divides and disciplinary boundaries in order to fully address contemporary ethics in a variety of contexts.

The ontological core of the posthuman theoretical project is precisely why I chose to begin this thesis with the work of Hegel: by invoking one of the primary figures of the Western philosophical tradition and demonstrating the posthuman underpinnings of his work, I suggest that posthumanism is an inevitable and necessary progression of humanism. Posthumanism in practical application should not ignore the positive elements of its predecessor, but instead transform humanism's anthropocentric onto-epistemological paradigm so that it might function in a postindustrial, postsecular, postmodern world. In chapter one, I used Hegel's narrativization of the M/S dialectic as a tool for analyzing subjective relations in the fictional context of robot rebellion. The M/S dialectic's ideal telos as sublation of Otherness anticipates posthuman ontology in its resistance to dichotomies. Furthermore, the posthuman emphasis on "mutation, variation, becoming" (Seaman 246) echoes Hegel's conception of "life as process" (107, my emphasis). The most fundamental link between Hegelianism and posthumanism is then the privileging of motion—both in the development of consciousness and historical perception. One of the underlying concepts of this thesis has been to chart a kind of historical progression in both the narrative and theoretical realms. Therefore, my analysis of R.U.R. as a significant cultural

text that informs contemporary SF simultaneously provides a teleological model against which posthuman narratives can distinguish themselves as ontologically progressive.

In the epilogue of My Mother Was a Computer, Hayles writes of popular narrative depictions of artificial subjects, "However this power struggle is played out and whatever its outcome, the subject/object dichotomy remains intact, as does the implication that subjects have the right to dominate objects" (242-243). Here, Hayles describes the residual humanism that I have critiqued throughout this thesis. She goes on to warn that "[i]f we interpret the relations of humans and intelligent machines only within this paradigm, the underlying structures of domination and control continue to dictate the terms of engagement" (243). While Hayles turns to literature in order to seek out texts that undermine "the subject/object divide," she seems to dismiss (or at least ignore) the potential significance of popular cultural narratives altogether. She goes on to assert that "an essential component of coming to terms with the ethical implications of intelligent machines is recognizing the mutuality of our interactions with them, the complex dynamics through which they create us even as we create them" (243). As I demonstrated in this second chapter, popular televisual narratives like BSG and Dollhouse demonstrate this symbiotic relationship between humans and technology and encourage viewers to think about the connection between posthuman ontology and contemporary ethics. I referred to these series as examples of "posthuman television," and indeed I see the current trends within the SF genre gravitating towards these kinds of complex and challenging narratives that destabilize identity, problematize humanist ethics, and undermine essentialist interpretations of subjectivity. A critical engagement with these popular narratives as responses to the posthuman condition will provide a bridge between two complementary discourses and pave the way for practical applications of posthuman theory.

3 Works Cited

- Abrash, Merritt. "R.U.R. Restored and Reconsidered." Extrapolation 32.2 (1991): 184-192. Print.
- Anderson, Sybol S.C. *Hegel's Theory of Recognition: From Oppression to Ethical Liberal Moderni*ty. New York: Continuum, 2009. Print.
- "The Attic." *Dollhouse: Season Two*. Writ. Maurissa Tancharoen and Jed Whedon. Dir. John Cas saday. 20th Century Fox, 2010. Blu-Ray.
- Badmington, Neil. Alien Chic. New York: Routledge, 2004. Print.
- ---. "Introduction: Approaching Posthumanism." *Posthumanism*. Ed. N. Badmington. New York:

 Palgrave Macmillan, 2000. Print
- ---. "Theorizing Posthumanism." Cultural Critique 53 (2003): 10-27. Print.
- "Belle Chose." *Dollhouse: Season Two*. Writ. Tim Minear. Dir. David Solomon. 20th Century Fox, 2010. Blu-Ray.
- Battlestar Galactica. Created by Greg Larson. Universal TV (1978-1979). Television.
- "Battlestar Galactica: The Miniseries." Writ. Ronald D. Moore. Dir. Michael Rymer. Universal Studies, 2004. DVD.
- Calleja, Gordon. "Rhizomatic cyborgs: hypertextual considerations in a posthuman age." *Tech*noetic Arts: A Journal of Speculative Research 2.1 (2004): 3-15. Web.
- Čapek, Karel. *R.U.R.* (*Rossum's Universal Robots*). Trans. Claudia Novak. New York: Penguin Books, 2004. Print.
- Castree N, Nash C, Badmington N, Braun B, Murdoch J, Whatmore S, "Mapping posthumanism: an exchange" *Environment and Planning A* 36.8 (2004):1341-1363. Print.

- Clark, Arthur C. Childhood's End. New York: Del Ray Impact, 2001. Print.
- Clarke, Bruce. *Posthuman Metamorphosis: Narrative and Systems*. New York: Fordham UP, 2008. Print.
- "Crossroads: Part 2." Battlestar Galactica: The Complete Series. Writ. Anne Cofell-Saunders and Mark Verheiden. Dir. Michael Rymer. Universal Studios, 2010. DVD.
- "Daybreak: Part 1." Battlestar Galactica: The Complete Series. Writ. Ronald D. Moore. Dir. Michael Rymer. Universal Studios, 2010. DVD.
- "Daybreak: Part 2." Battlestar Galactica: The Complete Series. Writ. Ronald D. Moore.

 Dir.Michael Rymer. Universal Studios, 2010. DVD.
- "Deep Space Homer." *The Simpsons: The Complete Fifth Season*. Writ. Davin Mirkin. Dir. Carlos Baeza. Fox Home Entertainment, 2004. DVD.
- Dinello, Daniel. *Technophobia! Science Fiction Visions of Posthuman Technology*. Austin: U of Texas P, 2005. Print.
- Empire of the Ants. Dir. Bert I. Gordon. Story by H.G. Wells. Cinema 77, 1977. Film.
- "Epiphanies." Battlestar Galactica:The Complete Series. Writ. Joel Anderson Thompson. Dir. Rod Hardy. Universal Studios, 2010.
- "Epitaph One." Writ. Maurissa Tancharoen and Jed Whedon. Dir. David. Solomon. *Joss Whedon's Dollhouse: Season One*. 20th Century Fox, 2009. DVD.
- "Epitaph Two: Return." *Dollhouse: Season Two*. Writ. Maurissa Tancharoen, Jed Whedon, and Andrew Chambliss. Dir. David Solomon. 20th Century Fox, 2010. Blu-Ray.
- "The Farm." Battlestar Galactica: The Complete Series. Writ. Carla Robinson. Dir. Rod Hardy.

 Universal Studios. DVD.

- Geraci, Robert M. "Robots and the Sacred in Science and Science Fiction: Theological Implications of Artificial Intelligence." *Zygon* 42.4 (2007): 961-980. Print.
- "Getting Closer." *Dollhouse: Season Two*. Writ. And Dir. Tim Minear. 20th Century Fox, 2010.

 Blu-Ray.
- Grossman, Lev. "Man and Machine." Time 177.7 (2011): 42-49. Print.
- "Guess What's Coming to Dinner?" Battlestar Galactica: The Complete Series. Writ. Michael An geli. Dir. Wayne Rose. Universal Studios, 2010. DVD.
- Hamilton, Sheryl N. "Traces of the Future: Biotechnology, Science Fiction, and the Media."

 Science Fiction Studies 30 (2003): 267-282. Print.
- Harkins, William E. Karel Čapek. New York: Columbia UP, 1962. Print.
- Hawk, Julie. "Hacking the Read-Only File: Collaborative Narrative as Ontological Construction in Dollhouse." Slayage: The Journal of the Whedon Studies Association 8.2-3 (2010): 1-20.

 Web.
- ---. "More than the Sum of My Imprints." Inside Joss Whedon's Dollhouse: From Alpha to Ros sum. Ed. Jane Espenson . Dallas: BenBella Books, 2010. Print
- ---. "Objet 8 and the Cylon Remainder: Posthuman Subjectivization in Battlestar Galactica."

 The Journal of Popular Culture 44.1 (2011): 3-15 Print.
- Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.* Chicago: U of Chicago P, 1999. Print.
- ---. My Mother Was a Computer: Digital Subjects and Literary Texts. Chicago: U of Chicago P, 2005. Print.
- Hegel, G.W.F. Phenomenology of Spirit. Trans. A.V. Miller. New York: Oxford UP, 1977. Print.

- "The Hollow Men." *Dollhouse: Season Two*. Writ. Michelle Fazekas, Tara Butters, and Tracy Bellomo. Dir. Terrence O'Hara. 20th Century Fox, 2010. Blu-Ray.
- "The Hub." *Battlestar Galactica: The Complete Series*. Writ. Jane Espenson. Dir. Paul Edwards.

 Universal Studios, 2010. DVD.
- Jameson, Frederic. *The Hegel Variations: On the* Phenomenology of Spirit. New York: Verso, 2010. Print.
- "Jeopardy! The IBM Challenge." Hosted by Alex Trebek. 14,15,16 Feb. 2011. Television.
- Kain, Phillip J. *Hegel and the Other: A Study of the* Phenomenology of Spirit. New York: SUNY Press, 2005. Print.
- Kinyon, Kamila. "The Phenomenology of Robots: Confrontations with Death in Karel Čapek's R.U.R." Science Fiction Studies 79.3 (1999): 379-400. Print.
- Kojeve, Alexandre. *Introduction to the Reading of Hegel: Lectures on the* Phenomenology of Spi rit. Ithaca: Cornell UP, 1969. Print.
- Kurzweil, Ray. *The Singularity is Near: When Humans Transcend Biology*. London: Viking Penguin, 2005. Print.
- Lang, Fritz. Dir. Metropolis. Universum Film, 1927. Film.
- "Man on the Street." *Dollhouse: Season One*. Writ. Joss Whedon. Dir. David Straiton. Twentieth Century Fox Home Entertainment, 2009. DVD.
- "A Measure of Salvation." *Battlestar Galactica: The Complete Series*. Writ. Michael Angeli. Dir. Bill Eagles. Universal Studies, 2010. DVD.

- McCormick, Casey. "Making Sense of the Future: Narrative Destabilization in Joss Whedon's Dollhouse." Television and Temporality: Exploring Narrative Time in 21st Century Programming. Ed. Melissa Ames. U of Mississippi P, forthcoming.
- "No Exit." *Battlestar Galactica: The Complete Series.* Writ. Ryan Mottesheard. Dir. Gwyneth Horder-Payton. Universal Studios, 2010. DVD.
- Pask, Kevin. "Cyborg Economies: Desire and Labor in the *Terminator* Films." *Postmodern Apoca lypse: Theory and Cultural Practice at the End*. Ed. Richard Dellamora. Philadelphia: U of Pennsylvania P, 1995. 182-198. Print.
- "Revelations." *Battlestar Galactica: The Complete Series.* Writ. Bradley Thompson and David Weddle. Dir. Michael Rymer. Universal Studios, 2010. DVD.
- Roberts, Adam. The History of Science Fiction. New York: Palgrave Macmillan, 2006. Print.
- Rossini, Manuela. "Figurations of Posthumanity in Contemporary Science/Fiction: All Too Hu man(ist)?" *Revista Canaria de Estudios Ingleses* 50 (2005): 21-35. Print.
- Seaman, Myra J. "Becoming More (than) Human: Affective Posthumanisms, Past and Future."

 Journal of Narrative Theory 37.2 (2007): 246-277. Print.
- Simpson, Peter. Hegel's Transcendental Induction. New York: SUNY Press, 1998. Print.
- Singer, P.W. Wired for War: The Robotics Revolution and Conflict in the Twenty-First Century.

 New York: The Penguin P, 2009. Print.
- Strayer, Kirsten. "Dollhouse's Future History Machines." Inside Joss' Dollhouse: From Alpha to Rossum. Ed. Jane Espenson. Dallas: Benbella Books, 2010. 175-187. Print.
- "There is Another Sky." *Caprica: Season 1.0*. Writ. Kath Lingenfelter. Dir. Michael Nankin. SyFy, 2010. DVD.

- "Vows." Dollhouse: Season Two. Writ. and dir. Joss Whedon. 20th Century Fox, 2010. Blu-Ray.
- Williams, Robert R. "The Concept of Recognition in Hegel's *Phenomenology of Spirit.*" *Hegel's*Phenomenology of Spirit: *New Critical Essays*. Ed. Alfred Denker and Michael Vater. Am herst: Humanity Books, 2003. Print.
- Winfield, Richard Dien. *Hegel and Mind: Rethinking Philosophical Psychology*. New York: Pal grave Macmillan, 2010. Print.
- Wolfe, Cary. What is Posthumanism? Minneapolis: U of Minnesota P, 2010. Print.