

Speculative Frontiers

Reading, Seeing, Being, Going

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Technology as Cure? Virtuality, Proxies, and the Vulnerable Human Body

Abstract: This paper examines the ways in which gendered, raced, and disabled bodies are simultaneously enhanced and exploited through virtual reality and telepresence technologies in feminist post-cyberpunk fiction such as Tricia Sullivan's *Maul* (2003) and Laura Mixon's *Proxies* (1999). . Ultimately, these texts insist on recognizing the vulnerability of the flesh as a defining trait of what constitutes human being.

In this paper,¹ I want to touch on the ways that feminist post-cyberpunk SF – as exemplified by Tricia Sullivan's *Maul* (2003) and Laura Mixon's *Proxies* (1999) – uses technology to problematize cultural constructions of the body. While technology is often considered a “cure-all” for the multitude of deformities and ailments of the vulnerable human body, feminist post-cyberpunk cautions against the common SF tropes of technophilia and “technology as cure.” In *Maul* and *Proxies*, Sullivan and Mixon argue that instead of “curing” the body of its perceived vulnerabilities, technology further exposes and exacerbates that vulnerability. Both writers imagine how technologically mediated non-corporeal sites conflate the conventional binaries that establish identity (such as body/mind, inside/outside, and single/multiple). I want to examine the ways in which gendered, raced, and disabled bodies are simultaneously enhanced and exploited through virtual reality and telepresence technologies. Ultimately, I propose that by embracing vulnerability as an essential defining characteristic of the human experience of embodiment, feminist post-cyberpunk challenges privileged visions of a posthuman future as masculine and heteronormative.

1. Trans/Post Human

I will begin this discussion by briefly sketching out the basic feminist and posthumanist theory that underpins my analysis and introducing the major themes of *Maul* and *Proxies*.² Virtual reality and proxy-bodies are two common technologies imagined in SF as capable of transforming the human³ into the posthuman. In SF, and in particular traditional cyberpunk SF, bodies are capable of adapting to technological advances and, in some cases, they must even rely on embodied technology for continued existence (for example, Dixie Flatline in William Gibson's *Neuromancer* [1984] or Visual Mark in Pat Cadigan's *Synners* [1991]). Such apparent malleability of the body in the presence of technology, however, creates anxiety over the future of the human: if the flesh is no

longer necessary for existence, then *what* are we? One of the ways in which such fears find rest is in the notion of transhumanism. Like technophilia and technophobia, transhumanism is a common attitude towards technological embodiment. Elaine Graham explains that "transhumanism celebrates technology as the manifestation of human liberation from bondage to nature, finitude, and the vagaries of diseases, decay and death. ... [W]hether the body is augmented, rebuilt or obsolete ... the essential, rational self endures unimpeded" (*Representations of the Post/Human*, 2002, 9). Whereas conventional cyberpunk favours subjugation of the body in favour of mental transcendence, feminist post-cyberpunk maintains that the connection between mind and body – and embracement of the body's vulnerability – is essential to productively and responsibly transforming our understanding of human being.

Reading cyberpunk literature, Claudia Springer notes the danger in turning to technology to resolve our transhumanist anxieties. She warns that "devising plans to preserve human consciousness outside of the body or to simulate human consciousness electronically indicates a desire to redefine the self in an age when the future of human existence is already precarious" (*Electronic Eros*, 1996, 27). Springer's comment forces the question: what is the future of human existence in the wake of so much tumultuous upheaval and technological progress? Critics who espouse posthumanism expend a good deal of energy mapping out what will become of the human – for better or worse. Reiterating the importance of human community, Sherryll Vint suggests that:

While many visions of the posthuman desire to transcend the limitations of the human body through technology or genetic redesign, I argue that is important to return to a notion of embodied subjectivity in order to articulate the ethical implications of technologies of bodily modification. Technological visions of a post-embodied future are merely fantasies about transcending the material realm of social responsibility. (*Bodies of Tomorrow*, 2007, 8)

Vint's evocation of social responsibility dovetails with my own concerns with reading the construction of gender, race, and (dis)ability in *Maul* and *Proxies*. I argue that, as much as the writers imagine the consequences of technological change, they are equally concerned with the social, political, and cultural realms of human existence. To separate the human element from the technological is, as Vint suggests, to avoid the ethics of social responsibility. Both novels deal with the exploitation of gendered, raced, and disabled others (notably, children) under the guise of humane medical intervention and research.

In her discussion of virtual embodiment, N. Katherine Hayles underscores the fact that "human being is first of all embodied being and the complexities of this embodiment mean that human awareness unfolds in ways very different from those of intelligence embodied in cybernetic machines" (*How We Became Posthuman*, 1999, 284). While cyberpunk was particularly interested in the embodiment displayed by cybernetic machines and the humans who sought to become like them, feminist post-

cyberpunk strives to detail the ways in which human being is emphatically different from technological being. Observing the fears that arise from the development of new technologies like virtual reality, Lisa Nakamura states that "the dream of a new technology has always contained within it the fear of total control and the accompanying loss of individual autonomy" ("Race In/For Cyberspace," 2000, 718). With every new technology (especially those that purport to transcend the corporeal realm), there is the attendant threat that users and non-users alike are in danger of succumbing to, or even falling behind of, progress and losing familiar touchstones of identity. Feminist post-cyberpunk novels attempt to deconstruct essentialist identity in favour of articulating fluid modes of embodiment (that are generative rather than corrosive). I suggest that *Proxies* and *Maul* attempt to reiterate an integrated embodied identity, while at the same time avoiding the pitfalls of essentialism and posthumanist dislocation of the fleshy body.

2. The Visibly Vulnerable

Both Sullivan and Mixon examine the inherent vulnerability of the flesh and express Western culture's collective desire to overcome and elide any sign of physical disability. Addressing the long history of pathologizing the othered or "atypically embodied," Rosemarie Garland-Thomson posits that:

[Medical] pathology transforms hybridity into abnormality. It converts the freak to the specimen. Whereas the spectacle of the freak exhibit tries to expand the possibilities of interpretation through sensationalism and exaggeration, the spectacle of the specimen attempts to contain those possibilities through classification and mastery. ("Making Freaks," 2003, 137)

Echoing Garland-Thomson's observation that medicalization converts the "freak into the specimen" in order to contain and control the non-normative body, Margrit Shildrick observes that "above all, vulnerability must be managed, covered over in the self, and repositioned as a quality of the other" (*Embodying the Monster*, 2002, 68). Throughout both novels, "visibly vulnerable" bodies – Meniscus in *Maul* and the crèche children in *Proxies* – are figured as "the other" and, as such, are subjected to invasive and depersonalizing experiments (under the guise of "cure" research). Unfortunately, those bodies figured as vulnerable are denied equal agency over their bodies. As Shildrick further notes:

Regardless of ethical intent, those on the receiving end of (limited) beneficence are never able to claim equal agency while their vulnerability remains. Vulnerability is positioned, then, as that which impairs agency in the 'damaged' other while inspiring moral action on the part of the secure self to make good the perceived lack. (77)

Both *Maul* and *Proxies* investigate the consequences of such moral intervention on the

bodies of those deemed "damaged." Through the narratives of Meniscus (in *Maul*) and the crèche children (in *Proxies*), Sullivan and Mixon illustrate the ways in which the desire to cure or control the vulnerable body with technology initiates a disjuncture between the mind and the flesh, resulting in a loss of autonomy and a meaningful connection to physical reality.

Following in the tradition of early cyberpunk, *Maul's* narrative centres on virtual reality, the interactive game Mall, as a technologically-mediated space wherein the disabled user can experience "liberation" from his or her body. Sullivan introduces Meniscus as an adolescent who is denied corporeal autonomy as he is deemed disabled and a danger to public health (being both a "y-autistic" male clone and potential carrier of the Y-plague). In *Maul*, the vulnerable body becomes the literal architecture for virtuality as the entire secondary narrative of the avatars (of his immune system), Sun and her friends, occurs within Meniscus's subconscious. In this sense, Meniscus appears more than human as his body both *relies on* and *acts as* an embodied space for the virtually-enabled beings (which are avatars of his immune system and of the "10E" virus being tested on him). From the outset then, Sullivan challenges the normative construction of the human – not only is Meniscus a clone, but his interface with virtual technology places stress on the limits of his corporeality. Instead of embracing Meniscus as an idealized example of the posthuman (as his body is genetically-modified and serves as a virtual gateway), the female researchers conceive of his body as monstrously other. Shildrick argues that monstrously embodied selves, like Meniscus, are "fundamentally disturbing in that they cannot be accounted for within the binary parameters of sameness and difference, in which the latter is measured in terms of the former" (75). Meniscus's ability to identify and be identified by those around him as human is inhibited by two mediating factors: one, by the virtual technology with which he must interface; and, two, by the researchers who reduce him to monstrous other as his "visibly vulnerable" body threatens to expose their own material constructions.

Mary Flanagan reflects that "computers, like the body, are permeable, and this permeability is dangerous as it allows contagion as well as content to enter; the contagion, like physical or computer viruses, might consume our histories and our knowledges" ("Hyperbodies, Hyperknowledge," 2002, 448). In *Maul*, Meniscus's body is the most permeable and therefore the most at risk of contagion; it is also the body most infiltrated by technology under the guise of medical research. He is able to endure the viral experiments on his body only "because he remained physically passive. He used Mall as a distraction and as an outlet for his energy; to temper the pain, to reconcile himself to the deadly invasion and survive in spite of it. What happened outside of his body shouldn't matter to him" (11). For Meniscus, his corporeal permeability disallows him any sense of his own history. His embodiment is regulated by Dr. Maddie Baldino, who limits the movement of his physical being and monitors his cognitive processes. Meniscus's sense of individual identity is so fragile that when another clone-child (Maddie's daughter, Bonus) triggers a reaction in his body, Mall ends up taking over his awareness: "He fights not to drown in the bugs' otherness – fights to retain his self-awareness" (14). Fighting a two-front war on his body, Meniscus struggles to maintain a sense of himself that is distinct from his designation as an ever-permeable, always

vulnerable, laboratory subject. With his humanity stripped, Meniscus becomes little more than expendable "meat" to the women who exploit him. As a cloned male in a female dominated world that privileges the "natural," his body is further marked as the other that requires containment. *Maul* expresses anxiety over what boundaries constitute the self when confronted with the technological.

Mixon's *Proxies*, much like Sullivan's *Maul*, utilizes virtual space as a site of "cure" for the body, but it also includes the technology of telepresence and the proxy body as another realm wherein the characters complicate notions of embodiment and identity. Similar to Meniscus in *Maul*, the bodies that undergo the greatest technological transformation are those easily manipulated: the crèche children are racially-minoritized children from underprivileged socio-economic backgrounds that have been "adopted" by Dr. Patricia Taylor so that she can use them in her telepresence experiments. Through virtual reality and proxies, one person is not limited to one body. In this multiplicity the crèche children in *Proxies* challenge the definition of the human. Mixon directly confronts this contention throughout the novel, often using the character of Carli D'Auber as the voice of the body. In discussion with Carli about the seemingly disembodied lives of the crèche children, Byron (a subordinate of Dr. Taylor) relies on philosophy to defend the experiments on them: "We're not our bodies. What makes us unique is our intellect. Information, sentience. Intelligence. That's what defines us as human" (322). Carli, defending practical and lived reality over intangible discourse, simply responds, "Oh, bullshit" (322). In order to access experiences of corporeality, the crèche-confined children embody proxies and virtual reality avatars; Mixon delves into the ways in which these technological spaces impact their conception of humanity. Carli, unnerved by the unnaturalness of the proxy bodies, tells Byron that she "can't get used to these bodies that aren't people's real bodies" to which he responds, "They're real. Just not flesh and blood" (323). Patently evident in their conversation is anxiety over the definition of "body" – Mixon challenges the reader to consider the view (or alternatively, the threat) that perhaps bodies *are* pure constructions and therefore their materiality (flesh or plastic) is irrelevant.

Instead of addressing the typical heterosexual white male cyberpunk hero, Mixon interrogates the relationship between the most marginalized (and therefore most vulnerable) members of society and technology. Dr. Taylor implies that she has "saved" the disabled crèche children from poverty and racial discrimination – as those markers are erased or hidden by the technology – and from experiencing human suffering (308). By freeing the children from their imagined bleak futures, Dr. Taylor and her team end up fostering disembodied consciousnesses that are unable to relate with the physical limitations of human being – marginalized or otherwise. For example, as the adults fight over Taylor's plan to murder the crew of the spaceship they intend to commandeer, Pablo thinks: "He didn't understand why the others were so distressed when it was just bodies they were talking about killing" (334). By the time Carli confronts the children with their own (pre-)existing bodily vulnerabilities, they remain uncertain as to how they fit into their larger human community. After Dr. Taylor's death, Buddy fumes that she "had convinced them that they were monsters – pariahs, who'd be shunned by the rest of humanity. He knew they'd be welcomed as the heroes – no,

superheroes – they really were (430).” Of course, both Buddy and Dr. Taylor are wrong, as neither fully acknowledges the complex relationship between the mind and body to which others bear witness. Through such scenes of bodily confusion – where the crèche children are unable to situate themselves within normative conceptions of the human – Mixon, like Sullivan, challenges the transhumanist tenet of using technology as a quick fix for transcending vulnerable bodies. The ill bodies of the crèche children are not dissolved in favour of complete mental autonomy; rather they are hidden away as shameful reminders of their failed normative corporealities.

3. Plastic Parts with Human Hearts: Challenging Gender and Race

Now that I have discussed how virtuality and proxy-bodies trouble notions of corporeality under the guise of “curing” the body, I want to take a closer look at the types of bodies that emerge out of these liminal spaces. Virtual reality, much like cyberspace, enables users to complicate projections of embodiment for themselves and others. As Graham notes, “Whether the body is discarded, retained or mutated in virtual media, it is clear that one of the effects of cyberspace is to render taken-for-granted concepts of embodiment problematic” (176). Arguably, technologically-mediated spaces trouble traditional notions of embodiment because they demonstrate that all embodiments are culturally constructed. Both novels seek to undo the notion of a “fixed and unified self,” which includes unmooring gender from the “natural.” Through technological spaces, the body is able to free itself – momentarily or permanently – from naturalized conceptions of gender and race in the narratives. Since gender and race remain contested sites of embodied identity, feminist post-cyberpunk attempts to unmoor those culturally-constructed markers from essentialist assumptions regarding corporeality. Reading similar scenarios in SF, Vint suggests that “computers do not just change our body images, but also influence our thinking and perception; the body and the self are both influenced by information technology” (119). Virtual reality and proxies are technologies that impact both the body and “self” (one’s constructed identity) simultaneously: the body must undergo specialized alteration or adaptation (i.e. computer hardware must be worn or implanted) and the mind must be trained to conceive of and endure multiple embodiments. I want to emphasize the ways in which Sullivan and Mixon manage (and, at times, fail) to destabilize gender and race as components of corporeal identification.

The gendered bodies with whom Meniscus physically interacts are simple parodies: muscles, mustaches, and aggression equal masculinity, while emotional instability, soft features, and a flair for fashion equal femininity. Without an equal balance of both sexes (due to the Y-plague), the gender relations in the world of *Maul* have gone awry. Subverting traditional gendered hierarchy, Sullivan places women in the masculinized roles of overseer and tormentor. Unable to challenge the threatening female masculinity of his oppressors, Meniscus uses Mall to experiment with, and eventually subvert, this gendered hierarchy. As avatars of his immune system, Sun, Suk Hee, and Keri are reflections of the fleshy women Meniscus encounters – but whereas Maddie and the other women are selfish, incompetent, and overly emotional, the avatar teen-

agers Meniscus creates are aggressive, but also resourceful, intelligent, and team-oriented. By exploring gendered identities through virtual reality, Meniscus attempts to understand and modify his own embodied sense of gender.

Instead of projecting his insecurities onto male figures (which he had no access to until the introduction of the prisoner Carrera into his cell), Meniscus identifies most strongly with female bodies. Through the avatars of Sun, Suk Hee, and Keri, his subconscious struggles to reconcile itself with his state of powerlessness and subjection. The gender-power exploration begins with Sun and Suk Hee's insistence that women are not passive victims, but perpetrators of action (5). Using the image of wolves, Suk Hee details how "the alpha female fights the other females to compete for who gets to mate with the alpha male. The alpha males sometimes fend off other males who want to mate the females, but not as ferociously as females fight" (19). The avatars' refusal to identify with ascribed female weakness reflects Meniscus's desire to become autonomous and powerful; he too aspires to attain "alpha" status. Through Suk Hee and Sun, Meniscus utilizes the virtual space of Mall in order to challenge the boundaries of gender norms. His exploration of gender can occur within Mall as it is a safe place wherein alternate forms of embodiment can exist without threatening real world gendered constructs. While *Maul* unfortunately ends up reiterating heteronormative constructions of gender – as Meniscus becomes more normatively human once he proves his masculine virility – Sullivan does seem to suggest that virtuality has potential as a generative space for marginalized identities.

Proxy-bodies, rather than Mall's virtual reality, are the key technological sites for gender experimentation in *Proxies*. Like the cyborgs of 1980s, the proxy body disrupts binary notions of gender and power. Jenny Wolmark explains that "by providing an opportunity for feminist SF to explore possibilities for the redefinition of gender identity in the context of cybernetic systems, the cyborg disrupts the gendered power relations of technology" ("Postmodern Romances," 1999, 232). Of all the proxies in the novel, Dane Elsa Cae's appears as the most feminine and most disruptive. For Dane, her self-awareness (of her body and identity as a person) is one born out of trauma as her consciousness awakens within a two-toned, adult female proxy. Of course, as the reader learns, Dane is a third personality called into being by Buddy/Pablo. From the moment of her conscious awakening, Dane challenges normative expectations: "he glanced at his naked body, at the high round breasts and the broadened hips, the triangle of pubic hair with no male genitalia. It shocked him. He – no, *she* – had faced into a gender blender" (10). Without a real body for reference, Dane enters into the female proxy with only a basic instinct towards gendered reactions and confused use of pronouns. Dane moves through the narrative deeply conflicted: her feelings are neither overtly gendered, nor entirely human. She cannot make sense of the "gender blender" she inadvertently finds herself in.

While she at first identifies as male, the switch to identifying as female is relatively quick and uneventful, pointing to the fluidity of gendered identity. Not even the scientists responsible for the proxy technology are able to situate Dane in the gender spectrum ("This person has no consistent sense of gender identity" [240]). Dane, as a

feminized personality of Pablo/Buddy, is the first of the three personalities to access the intensely domestic memory of their mother and nursing (a physical act of maternal care) (354). Her existence troubles both the stability of Pablo/Buddy's masculinity and sense of self. Perhaps because of this volatility, Mixon relies on using Dane's feminized personality as the one which is closest to infancy and the experience of being mothered – an experience that ultimately unifies the three personalities. While Mixon uses telepresence and proxies as technological ways to escape embodiment, her use of Dane Elsa Cae as the "original child" – the child who knows the fleshy body – signifies how gendered experience is still connected to specific bodies. It is only through Dane, that Pablo/Buddy can resolve the dissonance between his multiple selves. Throughout the narrative, Mixon resists the temptation to remove desire and agency from the flesh,⁴ as Pablo/Buddy/Dane Elsa Cae desperately desires the physical maternal contact severed by their technological confinement, while attempting to unmoor essentialist gendered identities from sexed bodies.

In addition to problematizing the cultural assignment of gender in *Maul* and *Proxies*, race undergoes similar processes of dislocation from the body (either intentionally or unintentionally). "While telecommunications and medical technologies can challenge some gender and racial stereotypes, they produce and reflect them as well," Nakamura reminds readers ("After/Images of Identity" 325). In my analysis, I think that each author "produces and reflects" racialized stereotypes to varying degrees. While both Sullivan and Mixon explicitly challenge gendered constructions of the body, their attempts at unmooring race from identity are not as successful. Shildrick frames the difficulty of dislocating race as another way in which we elide the recognition of all bodies as vulnerable:

The desire to protect the unity of the ideal social/racial body is instrumentalised always through a programme of measures that speak not to strength but to uncertainty, to an implicit recognition that vulnerability is not on the side of the other, but is embedded in the heart of normativity. (71)

With Shildrick's contention in mind, I want to read *Maul* and *Proxies* as works that set out to problematize race as connected to the vulnerable body, but ultimately end up reaffirming unproductive racial stereotypes. While all bodies are indeed vulnerable, these particular feminist post-cyberpunk texts nevertheless frame the racially-minoritized body as inherently more vulnerable (or at least, as more vulnerable to exploitation).

Although the real world scenario in *Maul* is predominantly a "white" space, the narrative of virtual Mall is populated primarily by Korean, Latina, and Black teenagers. While it is understandable that Meniscus identifies with female avatars (as he has few male role models to emulate), the fact that Sullivan characterizes them as racially-minoritized others, and moreover, as engaged in urban gang warfare, is highly problematic. Nakamura famously described this taking on of racialized personae in cyberspace interactions as "identity tourism" ("Race In/For Cyberspace," 2000, 714). In the virtual

space of Mall, Meniscus is engaging in a form of racial passing as his avatars are represented as stereotypically Asian.⁵ Interpreting the Mall narrative generously, I suggest that Sullivan establishes virtual reality as a site wherein Meniscus can free himself of his cultural identity – an identity that, in the context of his female dominated world, is marginalized and exploited (mirroring the reality of race relations in our modern world). Through his creation of the racially minoritized avatars, Meniscus finds a community of similarly vulnerable bodies.

Despite the supposed progressiveness of the avatars' gendered identities, Sullivan relies on racialized stereotypes to flesh out her characters. The most problematic racial stereotyping involves the characterization of avatars that represent the Y-plague microbes: the 10E virus manifests itself as the Bugaboo gang, comprised of violent, racially minoritized teens (for example, the 10E virus becomes the dark-skinned 10Esha). During his initial exposure to the virus, Meniscus feels "scared. 10E likes it. 10E takes his fear and turns it into poison. [...] The 10E bugs want to talk to him. Want to own him, enfold him" (15). I read this scene in two ways: first, Sullivan is merely replicating the stereotypes of racialized violence for sensational effect, and second, as I optimistically would like to argue, is that she does so in order to emphasize the disjuncture between the "visibly vulnerable" body (one that is deemed unfavorably marked by race) and the social body proper (the heteronormative white male body). Like the overly-racialized bodies of Sun and Suk Hee, the bodies of the Bugaboos are marked with otherness that sets them apart from the technologically advanced "white" space of the laboratory that confines Meniscus. While Meniscus may arguably find identification with the vulnerable bodies with which he populates Mall, the fact that it is the color of their skin that marks them as visibly vulnerable is entirely problematic. While Meniscus's new azure skin marks him, arguably, as posthuman (or "better than" human), the colour of the avatars' skin simply marks them as racialized others.

At times, Mixon also falls back on the same racial stereotypes to create characters in *Proxies* as she attempts to highlight the significance of race. The number of passages in the novel that deal explicitly with racialized bodies are few but they are particularly notable scenes wherein Mixon highlights the exploitation of the crèche children. The bodies of the children are triply marked as vulnerable: they are disabled, poor, and racially minoritized. Again, Dane Elsa Cae (Pablo/Buddy) becomes the exemplar figure in the novel. Dane's proxy, whose skin is "mottled, cocoa and alabaster" (10), is an apt example of a body in the text that complicates normative racial identifications. Upon meeting Dane, Carli calls her the "pinto woman," as she observes: "[Dane] was six feet tall and totally naked. [...] Her skin was a canvas someone had spilled buckets of paint on, cocoa and vanilla, like a pinto. Her body was unusually long and slim all over. Wiry. Her hair and facial features, though as varicolored as the rest of her, were Negroid" (210). As a sub-personality of Pablo/Buddy, Dane's "pinto" appearance indicates the splintering of the unified psychic self made into flesh – Dane is neither black, nor white, and neither fully human, nor robot. She is a supposed amalgamation of racialized identity, and yet, Mixon's choice to mark her with "Negroid" features secures Dane's position as other in the text.

I suggest that Mixon is interrogating how marginalized and racialized bodies, such as that of the Hispanic Pablo/Buddy/Dane, are commodified as test subjects by white-dominated science and medical research. Like Meniscus in *Maul*, Pablo and his crèche mates are chosen precisely because they are the most vulnerable, as they lack the socio-economic power to defend their rights. Instead of further exploring the children's apparent lack of identification with their marked bodies (hidden away in crèches), Mixon, like Sullivan, unfortunately ends up falling back on racialized stereotypes to illustrate their vulnerability. I read the scene of Carli confronting Pablo with his fleshy-body as one that is uncomfortably similar to World Vision ads of starving African children. Carli throws open Pablo's crèche:

There in a blob of gel lay a hairless, skeletal figure. [...] His skin and feature were Negroid. With his body so underdeveloped, his head was a good deal larger in proportion to it than that of a typical teenager. The face though would suit an angel. His eyes were huge and dark in a child-man's face, and his lips were full and round and sweet. So vulnerable. So frail. (462)

The image of a white Carli "saving" the "Negroid" Pablo is indeed problematic, especially considering Mixon's consistent attention to unmasking the social constructions of gender and drawing attention to the exploitation of racialized bodies. Like Sullivan, Mixon falls back on using racial otherness as a way to further mark the body as vulnerable and make projects of "rescue" possible.

4. The Flesh Persists

Technology does not save people in these narratives from discrimination or exploitation – instead it offers a space wherein people can explore their material identities and then return to the real world as more actualized human beings. In order for such a process to occur, the characters in *Maul* and *Proxies* must undergo a "healing" of the rift between mind and body. Although their forays into virtual reality and proxy-bodies provide Meniscus and the crèche children with the experience of embodiment, there is no unmediated knowledge of autonomous corporeal embodiment. Referring to the "powerful dream" of becoming a purely non-corporeal being, Hayles proposes that "it can be a shock to remember that for information to exist, it must *always* be instantiated in a medium" (13). The forms of embodiment attained through virtual reality and proxies are not reliable as neither the crèche children nor Meniscus have independent access and control over the technology. The narrative bulk of *Maul* and *Proxies* deal with disrupted and disturbed selves, but both novels end with the image of the individual as a corporeally instantiated vulnerable human being.

The coalescing of Meniscus's mind and body is evident throughout both narratives in *Maul*. Having survived an assassination attempt, Meniscus awakes and thinks: "It was too late to go back now. He'd neutralized the Y-plague. He was fully conscious of his physical processes, and he was in no danger from any bug known to man. He

and the Azure were in harmony with one another" (228). Within Mall, Sun makes peace with 10Esha and announces "I love the world" (271), returning stability and order to Meniscus's immune system. The violence within his body calmed – thanks to his interface with virtual Mall – Meniscus finally disengages himself from the fixed identity of "cloned male lab experiment," and attains a sense of corporeal autonomy. The resolution of the rift between mind and body in *Proxies* is more complicated, as the process of the integration involves Carli re-educating the crèche children. Throughout the novel, Carli represents the fleshiness of the body, while the crèche children represent the disembodied mind. In order to intervene effectively in their lives, Carli literally reminds them of their bodies by grabbing onto Pablo and yelling, "This is you. Not that muscle-bound *thing* you pilot around [...] Can you feel my hands on you? This is your body. When it goes, you go" (462). It is only then – through the feeling of human hands on vulnerable flesh – that Pablo/Buddy/Dane Elsa Cae finds resolution. Together, Carli and the crèche children begin to resolve the disjuncture between the flesh and the mind.

In the end, because of the time and effort spent in technological spaces, the characters in *Proxies* and *Maul* rediscover the centrality of the fleshy body in one's conception of autonomous identity (whether it be singular or multiple). The flesh persists: it remains vulnerable and permeable to adaptation. Graham posits that "it is perhaps more appropriate, therefore, to think of cyberspace as a transitional state where the subject is both materially *and* digitally embodied" (189). In feminist post-cyberpunk, virtual reality and proxy-bodies offer the characters the opportunity to experience digital embodiment in order to (hopefully) better understand their material embodiment. "It is not a question of leaving the body behind but rather of extending embodied awareness in highly specific, local, and material ways that would be impossible without electronic prosthesis" (Hayles, 291) and I suggest that this is the ultimate perspective both Mixon and Sullivan strive to express in their novels. The technologies of virtual reality and proxies are "electronic prostheses" – they should not be used for corporeal transcendence simply for the sake of "leaving the body behind," rather, they are best used as ways to extend the awareness of human capability and complexity

The vulnerable body persists in *Maul* and *Proxies* regardless of the technological enhancements used to "cure" it. Both Mixon and Sullivan take care to exemplify the fragility and impermanence of the flesh as they connect that vulnerability to the core of human experience. For Dane, it is her repressed memories and emotions that make her mangled mechanical body recognizably human to Carli. Approaching Carli as a severely damaged proxy, Dane asks, "Am I human? Am I real" (212) to which Carli compassionately responds: "I don't know if you're human or machine [...] But you're just not a thing. You know what pain is. You're real. Pain makes you real" (214). Suffering marks Dane as a vulnerable body, despite her embodiment as a high-tech robot, and engenders Carli's identification with her. The fragility of the flesh re-establishes Meniscus's humanity as well in *Maul*. At the end of the novel, he witnesses a wolf (the symbol of autonomy in the novel) being hit by a truck: "the small grey body [went] flying in the impact and the living shadow become just another piece of trash on the road. [...] It was so fast, and so unreal, that he almost couldn't believe it. Of all the things that had

happened, this was the one that he couldn't take as true" (268). Despite all of the mayhem he endures, it is the death of the wolf that reinforces Meniscus's own sense of vulnerability – his body might have changed, but his susceptibility to injury and death through random chance remains the same. Both Mixon and Sullivan remind the reader that it is our collective vulnerability – and our ability to recognize that same vulnerability in others – that makes us recognizable as human beings.

While Sullivan and Mixon still reiterate certain limitations of the body, their feminist post-cyberpunk narratives nevertheless strive to imagine ways in which the human race can begin to dismantle essentialist stratifications of identity. In the end, I believe that feminist post-cyberpunk SF is a genre that both warns of the dangers of embracing technological "cures," as well as envisions the possibilities of exceeding our current conceptions of identity and embodiment. In considering the potential of the human becoming the posthuman, Graham clearly states that:

The choice is not so much about abandoning nature, because humanity has always culturally constructed nature; rather, it is about who benefits from the growing medical and economic rewards for manipulating nature and whose representation of 'nature' – its limits, imperatives and capacities – will stand as authoritative. (123)

Throughout *Maul* and *Proxies*, the question of whose authority determines the definitional boundaries of the human is central to the narrative. With the development of each new technology there comes the risk of its misuse in order to exploit and control others. Feminist post-cyberpunk offers visions of a future where the misguided beneficence of the few can endanger those bodies which are "visibly vulnerable." In order to prevent such exploitation, we must each recognize the inherent vulnerability of all bodies – especially our own. Vulnerability must no longer be positioned as a defining trait of the other or as something to be cured, but embraced as an expression of our shared corporealities. While technology might offer us the dream of transcendence from the body, "flesh marks the very province of our humanity" (Graham 188).

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Notes

¹This paper is a modified and edited version of "Chapter Four: Technology as Cure? Virtuality, Proxies, and the Vulnerable Body," from my doctoral thesis, *Bleeding Chrome: Technology and the Vulnerable Body in Feminist Post-Cyberpunk Science Fiction* (2010, McMaster). The full thesis can be found here: http://www.academiceditingcanada.ca/works/Bleeding_Chrome.pdf

²In *Maul*, women are in charge after a "Y-plague" has decimated the male population. There are two interconnected narratives: first, the "real world" plot centering on Dr. Maddie Baldino and her experiments on Meniscus (a male clone donated to science), and second, the plot happening within the virtual Mall, controlled by Meniscus, where avatars of his immune system interact with the 10E virus being tested on him. In *Proxies*, the main character, Carli D'Auber, a key inventor of telepresence technology, becomes involved with a secret experiment being performed on children. The "crèche children," Pablo/Buddy/ Dane Elsa Cae the most prominent among them, live out their lives in virtual reality and in proxy-bodies under the supervision of Dr. Patricia Taylor.

³Drawing on corporeal feminism, I am defining "the human" as both corporeally and ontologically vulnerable. Just as my study of the body in this project necessitates a care to avoid essentialism in favour of a generative framework, the human, as a cultural construct, can be neither singular nor certain. By characterizing the human as ontologically vulnerable – in that no cultural conception of the human can ever speak for all bodies at any given moment in time – I open up a critical space wherein I can productively read both "the body" and "the human" as taken up by feminist post-cyberpunk SF without falling back on the essentialism of second-wave feminist thought. Also, by figuring the human as both corporeally and ontologically vulnerable, I am better able to trace the impact of technology on the body as the novels of my study are deeply concerned with the changing understanding of what constitutes human being and the body proper.

⁴While I necessarily must focus my discussion of gendered identity on the crèche children, the adult relationships in the novel are also worthy of attention. While desire and agency might transcend human

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bodies in the novel, the realization of them requires the body to be present. Much of the agent Daniel's frustration with Teru – his lab partner and former lover who wears a male proxy most of the time – stems from his inability to connect with her real body: "Damn you, Teru, he thought, you and your plastic testicles. Damn your breasts, damn your gorgeous thighs and that warm, wet, aromatic place between them that you've got locked away in a crypt. The renegade wasn't the only one with a confused sense of gender" (242). Despite Daniel's obvious aversion to homosexuality in the narrative (242), he nevertheless is unable to rid himself of his desire for Teru, even while she remains in a male proxy. In such scenes, Mixon opens up the space to interrogate non-heteronormative sexualities.

⁵The avatar Sun's racialized otherness is then emphasized repeatedly throughout the text. For example, Sun questions her correct use of English: "Grammar, like I said before, I wasn't born here and I can never be totally sure" (123). This stereotyping of the Korean immigrant with a poor grasp of the English language is carried throughout the novel with the figure of Sun's mom. The first introduction of Sun's mother is full of "dropped articles & shitty grammar" (3): "Sun, what you do? Tell me what you say little-brother" (3). Sullivan also reinforces Suk Hee's racialized "Asian-ness" throughout the text as well. For instance, when Suk Hee sees a pair of shoes that she likes: "She runs with tiny, cute little steps as if her feet are still bound in some kind of race-memory thing" (20).

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Where No ~~Man~~ One Has Gone Before: 1970s Feminist Science Fiction and the Sociological Imagination

Abstract: This paper examines how feminists such as Samuel Delany, Joanna Russ, James Tiptree, Jr., and Ursula LeGuin found science fiction writing conducive to challenging conventional frontiers of gender expectations in the 1970s and discusses how SF was used to challenge the boundaries of contemporary society and produce new ways of knowing the world for readers.

According to Kenneth Burke, “The basic function of rhetoric [is] the use of words by human agents to form attitudes or to induce actions in other human agents” (41). In 1970s feminist science fiction, we find a clearly defined rhetorical purpose: to undermine the assumption of hidden male privilege in language and society. The creative conversation defining this rhetorical purpose, which can be found in letters and fan-zines in addition to articles, essays, interviews, and books, gives evidence of a community of writers working together even while publishing separately. This community wrote with particular rhetorical aims, and it is these aims that I will begin to define and interrogate in this essay.

As I see the purpose, this research will bring together a few distinct lines of inquiry. It will better situate the feminist science fiction movement into the genre of science fiction while simultaneously showing (as in the work of Fredric Jameson and Donna Haraway) the importance of the genre to our ever-shifting understanding of ourselves as humans. It will show how redefining terms (like “female man”) according to Linda Hutcheon’s definition of postmodern can be a liberating experience not only for those like Samuel Delany, Joanna Russ, and Sally Gearhart for whom the definitions never fit, but also for those like Ursula Le Guin, James Tiptree, and most of their readers for whom the definitions fit but remained unnecessary to the point of ridiculousness. Ultimately, the research should show that much like the English Romantics, the Modernist poets, or the Inklings, this group of science fiction writers can be studied as exactly that: a collaborative, creative group with specific ideas about how the world could be better and with the means to spread those ideas in a way which changed the literary and social conversation.

Writing nearly a hundred years ago, John Dewey suggests that social change occurs when like-minded individuals join together in “cooperative voluntary endeavor [s]” (“I Believe” 269). Such movements, rather than being collectivist political actions, are collaborations wherein individual experience is key to the success of social action.

Dewey claims that "in fact the great social changes which have produced new social institutions have been the cumulative effect of flank movements" and that "movements going on in the interstices of the existing order are those which will in fact shape the future" (271). Concerning the shape of the future, Avery Gordon claims, "We need to know where we live in order to imagine living elsewhere. We need to imagine living elsewhere before we can live there" (101). Socially conscious theorists are responsible to show us "where we live"; creative language users are responsible to help "imagine living elsewhere." Only then can society begin the moves that make living elsewhere possible.

In order to understand how the feminist science fiction writers of the 1970s were helping us imagine a world other than the one they inhabited, we need to understand them as part of the larger Western movement of social feminism that became prevalent following the publications of Simone De Beauvoir's *The Second Sex* and Betty Friedan's *The Feminine Mystique*. Feminist writings from Friedan through the 1970s sought to produce work focusing on issues of gender (with excursions into race, class, and sexuality). Science fiction writers, always at the cutting edge of physics, chemistry, and biology, were also able to embrace the social theories of the 1960s and 1970s as topics for science fiction. Samuel Delany, Joanna Russ, James Tiptree, Jr., and Ursula LeGuin were all writing science fiction as well as communicating regularly with one another during the same moments that they were becoming fully conscious of the need to express the experiences of women (and others) in American literary and academic society. Much of the collaboration undertaken by this group is recorded in the letters, essays, and commentary published in the fanzines of the time period such as the short-lived feminist fanzine *The Witch and the Chameleon* and the famous *Khatru 3 & 4: The Women's Symposium*, from the fall of 1975. These creative artists formed a group of loosely affiliated peers who had evolved to the same basic conclusion concerning the need for a literature and theory that could finally address the science of social justice. They embraced the science fiction genre in order to use its rhetorical expectations which include possibilities different from reality-focused fictions, – mainly the idea that the world can, indeed, be imagined otherwise. The feminist movement in science fiction writing – an example of Dewey's "cooperative voluntary endeavor" – spurred by New Wave science fiction of the late 1960s, created powerful feminist fiction which demanded change.

A reading of contemporary composition and rhetorical theory, combined with the writings of the authors themselves, can give us insight into how the 1970s feminist movement used science fiction writing to produce new ways of knowing the world. Current theories concerning knowledge production, coming from earlier work by George Mead and Lev Vygotsky, argue persuasively for knowledge as a social creation through collaboration. Later writing theorists such as Andrea Lunsford and Kenneth Bruffee have written about how collaboration can change the way we are able to think about the world we inhabit. Lunsford claims:

[C]ollaboration both in theory and practice reflects a broad-based epistemological shift, a shift in the way we view knowledge. The shift involves a move from viewing knowledge and

reality as things exterior to or outside of us, as immediately accessible, individually knowable, measurable, and shareable – to viewing knowledge and reality as mediated by or constructed through language in social use, as socially constructed, contextualized, as, in short, the product of *collaboration*. (93, emphasis in original)

Similarly, Bruffee suggests, “We establish knowledge or justify belief collaboratively by challenging each other’s biases and presuppositions; by negotiating collectively toward new paradigms of perception, thought, feeling, and expression; and by joining larger, more experienced communities of knowledgeable peers” (427). Bruffee calls this collaboration the “Conversation of Mankind.” Through it he redefines learning according to the post-Vygotsky, post-Mead theory of knowledge production; he claims:

if we accept the premise that knowledge is an artifact created by a community of knowledgeable peers constituted by the language of that community, and that learning is a social and not an individual process then to learn is... to work collaboratively to establish and maintain knowledge among a community of knowledgeable peers through a process that Richard Rorty calls ‘socially justifying belief.’ We socially justify belief when we explain to others why one way of understanding how the world hangs together seems to us preferable to other ways of understanding it. (427)

However, we are only able to join new communities if we assent to “those communities’ interests, values, language, and paradigm of perception and thought” (427). Furthermore, Bruffee claims, “If, as Rorty suggests, knowledge is a social artifact... then the generation of knowledge, what we call ‘creativity,’ must also be a social process” which “occurs between coherent communities or within communities when consensus no longer exists with regard to rules, assumptions, goals, values, or mores” (429). Hence, collaborative creativity, Bruffee implies, becomes a way to create new paradigms of “perception and thought.”

Taking into account these arguments about knowledge production in collaboration, the rhetorician Karen LeFevre suggests, “Rhetorical invention thus cannot be viewed as the totally private act of an individual. It presupposes the existence of others and is oriented to take into account their knowledge, attitudes, and values” (46). In other words, new ways of thinking about the world – of imagining otherwise – can only occur through some form of collaboration. In her study *Invention as a Social Act*, LeFevre suggests that “A culture cannot ‘think’ ideas without the synthesis made possible by individuals who interact with culture in certain ways, nor can individuals create ideas in a vacuum removed from society and culture” (36). LeFevre’s emphasis on the dialectical nature of thought production, similar to Dewey’s theories about the recipe for social change, encourages us to see collaboration in language use – “invention as a social act,” as LeFevre puts it – as key to expanding the sociological imagination.

Considering the possibilities of science fiction (as opposed to realistic fiction) to

“realize” – or make real – feminist theories such as Friedan’s and Monique Wittig’s, Joanna Russ claims, “High culture is still dominated by realism... but surely the ‘paraliterary’ genres exist to receive and express what can’t easily be contained by realism” (*To Write Like...* 162). In the forms of thinking which underpin the genre of science fiction, Russ argues, the treatment of an admittedly imaginary idea “becomes complicated, plausible and (in that sense) realistic... realistic in the sense of making concessions to sense, actuality, and logic” (Russ, “The Wearing Out...” 49). In taking on the “specific flavor” of the science fiction genre, feminists are able to create theory as literature in a genre which has traditionally used its literature to critique “where we live.” The feminists, then, are able to create imaginary worlds containing different degrees of feminism which then allow us readers to experience what it would be like to live in worlds where gender is valued differently from ours.

As a historical survey of science fiction would suggest, an investigation of social change is one of the fundamental concepts underpinning science fiction. Science fiction presents new images for the sociological imagination, but unlike fantasy, those images are (or should be) based in the growing and changing knowledge we have about how the universe (how society) “really” works. “Like much ‘post-modern’ literature (Nabokov, Borges),” Russ suggests, “science fiction deals commonly, typically, and often insistently, with epistemology.... It is the only modern literature that attempts to assimilate imaginatively scientific knowledge about reality” (*To Write Like...* 11). In its endeavor to “assimilate imaginatively scientific knowledge about reality,” science fiction works more like philosophical theory about reality than like literary fiction. In fact, Russ suggests, “One must have a taste for abstract analysis to write science fiction... or criticism” (*To Write Like...* xvi).

In her 1971 article “The Wearing Out of Genre Materials,” Russ argues that science fiction is “theoretically open-ended: that is, new science fiction is possible as long as there is new science” and new combinations of sciences (54). As one example, Russ’s most well-known novel, *The Female Man*, uses many of the newer social sciences in interesting combinations with the more established sciences of science fiction such as physics. The novel deals with, among other ideas, arguments about biological pre-determinism through genetics versus social constructionism while specifically addressing the social psychology of Eric Berne’s theories of Transactional Analysis. *The Female Man* is clearly informed by deconstruction (which Russ may very well have learned from Delany) as in this moment near the end of the novel: “I said goodbye and went off with Laur, I, Janet; I also watched them go, I, Joanna; moreover I went off to show Jael the city, I Jeannine, I Jael, I myself” (212). Similarly to Russ, Ursula Le Guin’s fictional work from the 1960s and 1970s tests theories current in anthropological circles and Samuel Delany’s work addresses not only the ideas of semiotics through use of the theories of Ferdinand De Saussure and Jacques Derrida but also Michel Foucault’s theories of knowledge creation.

Such emphasis on new theories about the construction of reality underscores the fact that science fiction has historically been a genre devoted to ideas of change. James Gunn claims that science fiction is the literature of change and the literature of

thought (as opposed to character or action); in effect, he argues that science fiction has always been more philosophy than "literature" in that it is always about the placement of the human species in the universe (8). Science fiction theorist Darko Suvin claims, "SF sees the norms of any age, including emphatically its own, as unique, changeable, and therefore subject to a *cognitive view*" ("Estrangement and Cognition" 26). Additionally, Suvin writes, "In the twentieth century SF has moved into the sphere of anthropological and cosmological thought, becoming a diagnosis, a warning, a call to understanding and action, and – most important – a mapping of possible alternatives" (31). Obviously feminists were using science fiction to intentionally map these alternatives.

Feminist science fiction (feminist fiction which imagines the world otherwise) has been a genre of paraliterature for centuries, dating back at least to Margaret Cavendish's 1666 romance *The Blazing World*. Cavendish's *Blazing World* is admittedly an imaginary creation – as is Russ's *Whileaway*, Tiptree's or Delany's future Solar System, and Le Guin's *Winter*. Cavendish's impulse to use this imaginary creation and her fictional experience as functionally theoretical – to, as Judith Butler writes, "think about worlds that might one day become thinkable, sayable, legible" (41) – provides her readers with a specific contrast to their own experience. Such contrast is exactly what the sociological imagination provides. Speaking about the use of sociological imagination to produce new possibilities, Butler argues that we must be willing to open up "foreclosed" knowledge "in order to expand the domain of linguistic survival. The resignification of speech requires opening new concepts, speaking in ways that have never yet been legitimated, and hence producing legitimation in new and future forms" (41). Discussing her own impulse to create such contrasting experiences, Russ claims, "If any theme runs through all my work, it is what Adrienne Rich once called 'revision,' i.e., the re-perceiving of experience... because so much of what's presented to us as 'the real world' or 'the way it is' is so obviously untrue that a great deal of social energy must be mobilized to hide that gross and ghastly fact.... Hence, my love for science fiction, which analyzes reality by changing it" (*To Write Like...* xv). Science fiction's power as stimulant of knowledge rests on exactly this philosophical movement, the foundation of the sociological imagination: connecting the individual "experience" of character to the "common experience" of humankind.

Le Guin's work serves as a quick glimpse of the changes in the sociological imagination through the evolving approach to gender evident there. In Le Guin's fantasy writing of the 1960s and 1970s, what we know as the *Earthsea* trilogy, she is unabashedly sexist (as she hints in *Earthsea Revisited*): women have places always inferior to and dependent upon men; women cannot attend "college" and must instead learn "women's work"; women are literally disempowered because of gender/sex. Le Guin's science fiction novels *The Left Hand of Darkness* and *The Dispossessed* are much more clearly focused on the gender questions of the 1960s/1970s American feminist movement. Building on the theory that gender is a false construct of society, Le Guin created an androgynous race of humans in her 1969 novel *The Left Hand of Darkness*. Such a creation added a great deal to the sociological imagination of those who needed a vision of living without gender. In *The Left Hand of Darkness*, the main

population is gender neutral except for during a monthly cycle (similar to menstruation) when they become either male or female. Le Guin's definitions of male and female in this novel are very stereotyped, however, and she still called the characters "men" unless they were cycling as female – showing the bias toward male identity as the norm. In *The Dispossessed*, written just a few years later, Le Guin has a communist-feminist society wherein all members are supposedly equal and then she has a capitalist society which is very sexist but where women actually have more "power" to fulfill their desires for sex as well as for knowledge and political power. The reader can see distinct changes in Le Guin's approach to gender from *Earthsea* through the science fiction novels. Beyond them, when reconsidering her writing in 1987 in "Is Gender Necessary Redux," LeGuin suggests that in the 1970s she did not pursue her vision far enough. She points out that too many men found her vision "safe" while many of her fellow feminists (and some of her science fiction peers) wanted her to go much further in establishing a non-gendered society.

As Le Guin's evolution shows, although these writers were certainly a community of peers, they were never an official group, and the membership of this community of peers shifted as the field opened to newer writers (or changing writers). However, there is much that can be said about this movement and its shared vision of social change. In her essay "Recent Feminist Utopias" (1981), Russ provides a list for the movement which includes Monique Wittig, Suzy McKee Charnas, LeGuin, Delany, herself, Alice Sheldon, Marion Zimmer Bradley, Marge Piercy, Sally Gearhart, and Catherine Madsen (*To Write Like...* 133-134). While claiming that he would fit well in any of a half dozen lists, Delany lists the strong feminist writers "who came to prominent attention at that time: [himself, the context may imply], Russ, Charnas, Le Guin, and later Tiptree, McIntyre, Varley (male), Lynn, and Sargent: a very, very strong current in the recent sea of SF production" (*Silent Interviews* 211). Worthy of note is that both Russ and Delany emphasize a connection to one another as well as to Le Guin, Tiptree, and Charnas when defining their peer groupings.

The members of the feminist science fiction movement, together with editors such as Harlan Ellison and Robert Silverberg, made room for new kinds of engagement with the social theories of the 1970s. In her foreword to Russ's novel *The Two of Them*, Sarah Lefanu writes, "you can see in Russ's novels and stories a series of dialogues – interrogative, engaged and sometimes enraged with a world being turned inside out by the women's liberation movement" (viii). In her forward to Russ's story collection *The Zanzibar Cat*, Marge Piercy claims, "The push toward freedom, appetite, curiosity both intellectual and sensual, the desire to control and expand their own existence, figure far more importantly in the lives of her female characters" than the traditional desires female characters were allowed in the fiction of reality (xii). Lefanu claims, furthermore, that Russ "recognized, along with other writers, such as Ursula Le Guin, James Tiptree, Jr. (Alice Sheldon) and Suzy McKee Charnas... what great opportunities [science] fiction offered" to address her feminist concerns (x-xi). Delany also took advantage of the opportunities made available through science fiction. In a 1986 written interview with Lloyd Hemingway, Delany celebrated his ability to write about literary and psychological theory in science fiction: "science fiction has often spoken of

itself as the literature of ideas. It dramatizes notions of critical theory in much the same way that it dramatizes notions from any hard or soft science. It approaches the notion of deconstruction in much the way it would approach the notions of navens or of ion transfers..." (*Silent Interviews* 71).

My overall research project seeks to judge how the feminist science fiction writers of the 1970s worked in a Dewey-style "cooperative voluntary endeavor" to produce social change. These authors, through a synthesis with the culture of 1960s and 1970s America, were writing fiction which expanded the genre of science fiction and enabled new ways to think. They chose the genre in order to join a knowledgeable peer group negotiating "collectively toward new paradigms of perception, thought, feeling, and expression." In order to better understand how the collaboration between these feminist authors worked, I spent time in the archives at UC-Riverside and at the University of Oregon this summer. There I read fanzines from the 1970s as well as reams of letters written from or to Russ, Le Guin, Delany, Gearhart, Charnas, Tiptree, and others. My archival research this summer reinforced my overall conjecture – these feminists were writing in an atmosphere of understood collaboration. Sometimes the letters show frustration that Le Guin is not doing enough for the movement or that Russ is holding back what Gearhart is pushing for; other times the letters show Delany trying to find his voice through a melding of his understanding of himself as a sexual being who does not fit the standard definitions and as an intellectual being whose emphasis on critical thinking and philosophy are equally as displacing as his sexual identity. And sometimes you find Charnas crediting Russ for helping her discover a voice or Tiptree defending Le Guin as the one voice who is able to reach the widest audience because she is most like the masses.

Now, Thirty-six years after the publication of *The Female Man; Trouble on Triton; Houston, Houston, Do You Read?*; and *The Dispossessed*, Le Guin is now celebrated as a leading feminist author, Russ is undergoing a revival as much of her fiction is being republished and several critical essays are now focusing on her achievements, Tiptree is the subject of a major biography, and Delany is also seeing much of his earlier work republished. These authors are now gaining a more substantial critical following as well as a popular following for their collaborative work in helping society imagine otherwise, creating new visions for the sociological imagination surrounding feminist thought in the 1970s.

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The Time Paradox

Abstract: A discussion of the time travel concept and the challenges a writer faces when implementing time travel into their narrative. Examples drawn from Tim Powers' *The Anubis Gates*, Charles Stross' "Palimpsest" and Mary Robinette Kowal's "First Flight."

Since *The Time Machine* was first published in 1895, the idea of time travel has been thought of as something strictly for science fiction narratives. However, in the current age where blurred lines between genres are more common, time travel can be found as an element in historical fiction, contemporary fiction, fantasy – and that's not even including the ways it has been used in Hollywood comedies. But it is the stories of science fiction that first presented us with the idea of the Time Paradox.

The Time Paradox can be defined as a paradoxical situation that occurs when someone travels into the past. It is the consideration of these possible situations that establishes limits for a writer incorporating time travel as an element of their narrative.

Length also places its own limitations on how the paradox concepts can be addressed. In a short story, for example, there is likely to only be one paradox situation – two at a stretch – that can be explained sufficiently to maintain the reader's belief in the narrative. Through three sample texts – Locus Award short story finalist "First Flight" by Mary Robinette Kowal, the Hugo Award winning novella "Palimpsest" by Charles Stross, and the Philip K. Dick Award winning novel *The Anubis Gates* by Tim Powers – we will examine successful implementations of five forms of the paradox: the Causality Loop, the Grandfather Paradox, the Timeline Corruption Hypothesis, the Predestination Loop and the Bootstrap Paradox. Secondary to addressing the paradox scenarios, but just as critical to facilitating the believability of the story, we will also review the means of transport: to what extent is the act and apparatus of travelling described?

1. Example Texts

A Causality Loop is a scenario whereby a time traveler's going back in time may not be changing "history" but contributing to the creation of what they know has come to pass – whatever has happened must happen, and the traveler is simply the catalyst to trig-

ger the historical event. Mary Robinette Kowal's "First Flight" exemplifies the Causality Loop.

What would it have been like to see the Wright brothers fly? What if someone were paying you to bring back video footage? For Eleanor Louise Jackson, born 1905, this is exactly the case: she is contracted by the Time Travel Society of a contemporary present to travel to 1905 to witness an otherwise little documented design stage of the Wright Flyer.

While in 1905 Louise encounters Homer Van Loon who is "a twelve-year-old boy reading Homer on his free time." (Kowal, 7)ⁱ An equipment malfunction causes her to disappear from in front of him while they are walking to observe the Wright Brother's flight. When she returns to 1905, she chooses to confide in him her truth: that she is a time traveler.

At the close of the story, when Louise returns to her present, there is a letter from Homer waiting for her. This letter reveals to Louise that, "we [Homer's family] are... major shareholders in the Time Travel Society. It ensures that your future trips to my past are without incident." (Kowal, 26) Causality – if she hadn't gone back and spoken with Homer there likely wouldn't be an organization that would send her back.

Kowal restricts control of the act of travelling to a third party. Louise steps inside a "plain steel box... about the size of an outhouse, but without a bench or windows," and a few moments later, "a gust of air puffed around her and the steel box was gone" and Louise is delivered to her destination. (Kowal, 1) Once in 1905, "she had six hours before they spun the machine back down and she [is] returned to her present." (Kowal, 1) Where Wells' Traveller physically pilots his machine through his adventures, Louise is at the whim of a committee, a schedule and a machine anchored in her own present.

Kowal also establishes limits on the range that can be traveled – only within the confines of the traveler's own lifetime. This restriction eliminates the second paradox scenario: the Grandfather Paradox.

The Grandfather Paradox posits the repercussions when a character travels back in time to kill their own grandfather before they would have any children (thereby ultimately eliminating the existence of the character in the first place). Where Kowal eliminates the scenario, Stross' "Palimpsest" uses it as a starting point.

"You will flex your fingers as you stare at the back of the youth you are going to kill, father to the man who will never now become your grandfather... all because you will believe the recruiters when they tell you that to join the organization you must kill your own grandfather, and that if you do not join the organization, you will die." (Stross, 254)ⁱⁱ

Could you kill your grandfather, if it meant the potential for immortality? What

would you do if, at some far point in the future, you regret your decision and want to go back? The opening segment of the novella is an explicit handling of the Grandfather Paradox, with the rest of the story stemming from the Future Agent Pierce's eventual career burnout and desire to quit. A variation of the Grandfather Paradox also occurs when Agent Pierce, in order to graduate from training, must kill an iteration of himself, a literal self-sacrifice to prove his commitment to the organization.

By the use of the palimpsest, the novella also suggests the Timeline Corruption Hypothesis (a butterfly effect on the timeline). A palimpsest is defined as the recurring overwriting of data. The theory within the story is that the world has died, been rebuilt and reseeded by the Stasis numerous times (the macro-palimpsest). The history progresses similarly each time from a Cryptozoic (pre-human) era, but once humans enter the scene anything can happen. The Stasis exists outside of the flow of regular time, and consider themselves historians, maintaining a library at the end of time that records all of human history, including when events have been changed by Stasis agents (the micro-palimpsests), where "The [temporal] sector is indeed overwritten with new history: the other events are unhistory now, stuff that never happened. Plausible lies... all the possible routes through history." (Stross, 299-300)

Within the story, where Kowal uses a machine to physically relocate the traveler, Stross combines the wormhole concept with molecular destruction and reassembly of a person –sending the person's energy between two points, not an intact body. "When you use a timegate, you enter a wormhole, and when you exit from it – well, from the reference frame of your point of emergence, a singularity briefly appears and emits a large goblet of information. You... You're just a bundle of data spewed out by a wormhole." (Stross, 299)

A novella allows the space for more layers than a short story, but a novel allows the flexibility of adding either more layers of time paradoxes or lingering longer over only a few, which leads us to *The Anubis Gates* by Tim Powers and the Predestination Loop.

Poet William Ashbless, considered a contemporary of Samuel Taylor Coleridge and Lord Byron, appeared on the scene in London in 1810. In 1983, scholar Brendan Doyle, having published a book on Coleridge, is stalled on his current project (a biography of the little documented William Ashbless). It is with this background that Doyle agrees to be a context guide for an excursion back to 1810, a commercial venture to experience Coleridge presenting a pub lecture one week before the known arrival of Ashbless.

What if it were your destiny to die over 100 years before you were born? The Predestination Loop is another name for the Causality Loop, but I think a distinction could be made between the two. Based on how the concept is implemented and how the travel is described, I would argue that a Causality Loop implies technology, where a Predestination Loop incorporates some form of divine or supernatural (non-technical) means. To draw a further distinction between the Causality & Predestination loops, it

can be noted that in "First Flight" Louise was able to return to her time and continue her life; in *The Anubis Gates*, Doyle is trapped in a recursive loop, living as Doyle only until 1983 before living and dying as Ashbless from 1810 to 1846.

Through outside events, Doyle becomes separated from his party at the pub lecture and fails to return to 1983. While trapped in 1810, he decides to learn firsthand about William Ashbless. Through a series of supernatural events Doyle, at the end of the first half of the book, has a moment where he "recognized the face in the mirror... with the wild mane of hair and the Old Testament prophet beard... the somewhat haunted expression of the eyes [that was] beyond any doubt, the face of William Ashbless." (Powers, 191)

It's through that transformation of Doyle-cum-Ashbless, and the realization, during the second half of the novel, of events that had been foreshadowed in the first chapter that fulfills the Predestination Loop.

A second paradox scenario incorporated into the Predestination Loop, is the Bootstrap Paradox – the transfer of an item or information from a future point back to the past, which subsequently becomes the same information that is sent from the future point back to the past. There is a scene in the first half of the novel where Doyle is waiting attentively in the pub where, based on previous accounts, Ashbless was said to have written his major work, a poem called "The Twelve Hours of the Night." Doyle waits, and as the time passes with no sign of anyone resembling the image he has of Ashbless, he "stopped a boy and asked him for a pencil and some sheets of paper... to write out, from memory, the entire text" of the poem. (Powers, 133) Since the poem was written in 1810, it was in existence for Doyle to have memorized it by 1983; since Doyle travels from 1983 to 1810, he is able to write the text that he would later have memorized before travelling from 1983.

Where traditional time travel stories, including the previous two examples, explicitly use technology to facilitate the journey, Powers explains that ancient Egyptian magics created localized windows or "gaps" that act as wormholes between fixed points in history. Those gaps can then be manipulated by high bursts of energy to allow travel through time. Before the jump from 1983 Doyle is told, "What's going to happen is we'll all be lined up in the path of a blast of insanely high frequency radiation... and when it hits us, the odd properties of the gap field will prevent whatever would ordinarily occur... we'll become, in effect, honorary tachyons." (Powers, 34) However, there is a second jump that takes place in the story that takes Doyle from 1810 to 1684 where a "[summoned] ring of ... fire elementals [provides] the tremendous energy that would be needed to fuel and propel" the jump through time. (Powers, 227) Like Kowal's story, the return trip is also outside the direct control of the traveler. Before their initial jump, all of the members of the party are given "a lozenge of green stone... [marked with] a mix of hieroglyphics and astrological notations" to be worn, strapped to their forearm, what is referred to as a "mobile hook." "You've got to be within the gap, as well as touching the hook" in order to return to your original time. (Powers, 38) No beacon, or not in the gap when it closes, and you're trapped unless you can find another window.

2. Crafting With Consideration: How To Make Time Travel Work For You

There are definite techniques that can be observed through a close look at the structure of the sample texts, ones that can be found in any successful use of time travel as a story element.

Mention it early. "First Flight" mentions time travel in the first sentence. "Palimpsest" tells the reader they are experiencing the Grandfather Paradox in the first lines, and closes the first narrative portion stating that "Agent Pierce [is] an orphan of the time stream." *The Anubis Gates* mentions time travel by page thirty (of four hundred). If time travel is to be a critical plot device, something important for the point of view character to experience, it should be mentioned early. This allows the reader to acknowledge that time travel is possible in the world of the story, accept it and move on. It should be noted that it is possible to expose the point of view character to the use of time travel late in the story, as long as there are enough clues placed early on that suggest time travel is something that a non-point of view character has been capable of.

Offer an explanation. There should be a very clear idea of how the act and (Kowal) (Stross) (Powers) mechanics of travel work within the story. The length of the narrative will determine how much detail can be presented, but some kind of explanation should be made for the reader to connect with the world of the story. Kowal provides snippets of explanation about the machine, but only what Louise needs to know. Stross' Agent Pierce travels by time gate several times throughout the text, but more technical details on how the travel works are given when Pierce *needs* to have that understanding, when having that understanding is important to the progress of the character. Powers has a five-page scene prior to the jump from 1983 where the story's concept of how time travel is possible is explained to Doyle. Before the second jump, there is also a brief explanation about how the "hooks" are created to allow the return trip.

Justification. What is the motivation for the story? Why does the point of view character *have* to time travel? "First Flight" keeps the motivation simple: Louise is the only native English speaking person the Society has that is old enough to jump to 1905. In *The Anubis Gates* Doyle is a Coleridge scholar, so the chance to meet and engage with the *person* – not just the works – is too good an opportunity to pass up. "Palimpsest" is slightly different that the point of view character is outside of the normal flow of time, but each occurrence of travel is in pursuit of *something* – some experience, some mission or search for some piece of knowledge. Time travel shouldn't be used simply as a means of getting the character(s) from one time period to another. There has to be something the reader can identify as being at stake for the traveler(s).

Summary

A Time Paradox is going to happen when a character goes backwards in time. We have looked at three sample texts of different lengths – "First Flight" by Mary Robinette Kowal, "Palimpsest" by Charles Stross, and *The Anubis Gates* by Tim Powers – and

five Paradox scenarios they present. We have also examined how the physical act and apparatus of time travel has been described in these stories. By reading and studying these three texts, a writer can infer that there are three key factors to effectively using time travel in a story: mention its possibility early, explain how the travel is made possible, and justify the use of time travel by the character(s). In doing these three things, while being conscious of the paradoxical situation they are creating, a writer should be able to provide the engaged reader enough information to believe the plausibility of time travel within the story.

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Notes

ⁱPage numbers for "First Flight" are based on an electronic version of the story, viewed on an iPad in Portrait orientation.

ⁱⁱPage numbers for "Palimpsest" are based on an electronic version of the story collection *Wireless*, viewed on an iPad in Portrait orientation.

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The Promise and Peril of Rebooting a Beloved Franchise: A Narratological Analysis

Abstract: Reboots or “reimaginings” must tell a compelling story while handling intense audience expectations. This paper uses narrative theory to examine reboots as a convergence of canon, new visions, and audience expectations, focusing on reboots as the latest iterations of well-known franchises (such as *Star Wars*; *Battlestar Galactica*; and *Star Trek*) and as responses to the potential such inter-generational narratives allow.

In the Preface of my first book, *Plagues, Apocalypses and Bug-Eyed Monsters* (2007), I identified myself as a member of the *Star Wars* generation because I quite literally don't remember a time in my life when I wasn't a fan of that narrative. I vividly remember playing with X-wing fighters, waiting in line outside of a movie theater in Media, Pennsylvania to see *Empire Strikes Back*, reading the comics, and so on. Thus, the science fiction genre played a significant role in how I encountered and engaged popular culture from an early age.

I begin with this personal disclosure as a way to place myself in relation to a familiar popular culture staple: the reboot or reimagining of a franchise. Within the past decade or so, three significant narratives, both from a science fiction genre perspective and from my own personal one, have been reimagined in substantial ways.

The first began in 1999 when the first *Star Wars* prequel was released. Now I'm not about to jump into the debate that compares the merits of the more recent trilogy with the earlier one. Instead, I have become intrigued by the impact of the prequels' chronological time shift in the narrative of Anakin Skywalker and how that shift influences the way in which fans interact with the text. The best way I can illustrate this is with a picture.

That would be my now six-year-old nephew Colin who, as you can see, is as obsessed with *Star Wars* as I remember being, running around Disney World in his Grandmom-made Jedi robe, wielding a lightsaber. What I have realized, though, is that his experience with the Skywalker family narrative is fundamentally different from mine because all six films are available to him (actually, only five since he is still too young to watch *Episode III*). What that means, then, is he knows *Episodes I* and *II* as well as I knew *Episodes IV* and *V* at the same age. And that difference manifests itself in the

different characters we each wanted to emulate: while my sister and I fought over which of us got to be Luke and which would be Han, he insists that he is Obi-Wan Kenobi because Ewan McGregor's version of Obi-Wan is the character he sees most often in the movies and seems to be the one he identifies with.

The next narrative franchise from my childhood to get the reboot treatment was *Battlestar Galactica*, which the Sci-Fi channel reimagined with a 2004 miniseries followed by a weekly series. Many, many changes were made to the admittedly campy, and even silly, original 1978 television series but I was ambivalent about the re-imagined *Galactica* that had everyone from theoretically-minded media scholars to *Entertainment Weekly* heaping praise during its 2004-09 run. My instincts told me that I should have been awaiting every episode with baited breath, regularly visiting the official and unofficial blogs looking for my *Galactica* "fix." But I wasn't and for a while, I couldn't figure out why. After some soul searching, and much fan "debate," I realized that my ambivalence regarding the new series could be summed up in one word: Muffit. Now I realize that to most fans of the genre, the robot dog and his child owner, Boxey, are a shorthand for all that was wrong with the original *Galactica* and for most of what was right about the new. But my experiences with the two versions of the story lead me to a different perspective: the removal of Muffit and Boxey are emblematic of what I find lacking in this particular reboot.

I have a most vivid memory of the 1978 episode called "Fire in Space," and even to this day, the image of a charred robot dog is still crystal-clear in my mind as he drags Boxey by the collar through a smoke-filled passage. I can still hear the whine of the struggling motors in Muffit's robot body as he collapses and "dies" (to then, of course, be rebuilt since he is a robot after all). This singular scene of that episode, melodramatic as it is, reflects a compelling element of the original series as a whole that continues to fascinate me even today: self-sacrifice. The *Galactica* narrative, to me, is most powerful when Viper pilots are the only thing that stand between the "rag-tag" human fleet and annihilation, as the remaining humans flee across the galaxy trying to outrun certain extinction at the hands of their robot (Cylon) pursuers. Muffit's sacrifice is a smaller-scale version of that scenario and narrative theme, a theme that was deemphasized, I found, in the reboot. I just couldn't get as invested in any of the re-imagined *Galactica* characters with that same emotional intensity. I watched the show for a while, and enjoyed it, intellectually—but not like I enjoyed the original.

And then we come to the most recent reboot of the three, JJ Abrams's 2009 entry in the *Star Trek* franchise. I have a much less personal connection to the original *Trek* narrative and so my interest in this new version carries less emotional weight. And yet, while I wouldn't consider myself a hard-core Trekker, I was riveted during the new *Star Trek* movie and fascinated with the implications and success of this particular reboot. And as I sat in the theater in May 2009, I began to ponder what's required to take an intergenerational narrative like *Star Trek* or *Star Wars* and reimagine it for both new and established audiences. And so this project was born.

In addition to these incredibly well-known franchises, the book-length analysis I

am writing for McFarland, on which the material for this short paper is based, examines several other recent reboots including the two seasons of the recently cancelled V television series and the *Sarah Connor Chronicles*, the *Terminator* reboot that also included a medium shift from film to television series. As a final note on scope, I excluded from my analysis the vast array of comic book reboots, both in print and on the screen, not only for the sake of manageability, in that both print and film reboots of such narratives as *Batman* and *X-Men* have been occurring for decades, but also out of deference to the in-depth and impressive scholarship that has already been conducted, and continues to be created, on this more focused sub-genre of reboots.

For my purposes at the moment, therefore, I will pull my illustrative examples from the three main reboots: *Star Wars*, *Battlestar Galactica*, and *Star Trek*.

In my investigation into the mechanics of a reboot, I am relying primarily on narrative theory to capture what separates these reimaginings from other cultural texts. With roots in early twentieth-century Formalism and Structuralism, narrative theory (also known as narratology) is a vast and dynamic discipline, with several schools and movements that complement and even contradict each other. For the sake of clarity, and keeping in mind that my audience will likely be familiar with the narratives under analysis, but not the theory, I am relying primarily on Mieke Bal's *Narratology: Introduction to the Theory of Narrative* (1999) to establish the structure and terminology of my analysis. In other words, my goal not only for this paper but also for the larger project is not to provide a comprehensive review of narratology for the science fiction fan, but rather to use the robust theory of narrative to articulate and analyze the intuitive responses genre fans have to the already well-known texts.

Such reimaginings have actually been a familiar feature in popular culture for a long time. Well-known examples include the many remakes of the Arthurian legends, *A Christmas Carol*, Jane Austen novels, and Shakespearean plays (many of which could be considered reimaginings themselves). But how do producers and writers successfully take on familiar characters and a narrative so many fans love and respect and (making the task even more complicated) know backwards and forwards?

With the added weight of anticipation and familiarity, such projects are high stakes. Reboots are often interpreted as deliberate attempts to make naïve, even campy series edgier and darker to better match the cynicism of the contemporary viewer. This was perhaps the defining element of the *Galactica* reboot with such changes as making Cylons appear human and straining the father-son relationship between Adama and his son Apollo to the breaking point.

And yet the fan experience is more complicated than this conventional wisdom, in large part because of cherished experiences with the original narratives. Straying too far from the heart and soul of a familiar narrative can be disastrous. As I argue in *Plagues, Apocalypses and Bug-Eyed Monsters*, science fiction and our culture influence each other in a complex feedback loop that also manifests itself in a strong set of connections within the genre itself. In a reboot, however, the narrative is in conversa-

tion with itself, not only on the visual/trivial level but also on a deeper mythological/philosophical one as well. While it may be commonplace to say that no text exists in a vacuum separated from its cultural context, in most cases this context exerts a primarily implicit, background pressure, such as those expectations related to genre. Re-imagined narratives, on the other hand, carry with them a more explicit, identifiable, and familiar background and history and all of the familiar elements of audience reception, such as genre, media hype, and idiosyncratic viewer expectations, are magnified and complicated by the weight of history and what is known within fandom research as "canon," which Karen Hellekson and Kristina Busse define as "the events presented in the media source that provide the universe, setting, and characters" of the narrative (2006, 10).

What most distinguishes reboots, therefore, is their extra narrative burden: not just telling a compelling story but also handling the expectations from canon. Those expectations are a source of potential danger if the reboot is either too faithful (a mere "retread") or too unconventional (not adhering to the spirit of the original). Producers of a reboot must make careful decisions regarding what to keep, what to add, and what to cut.

But this additional burden is also an additional opportunity for audience pleasure. For example, a key characteristic of reboots is that some elements of the original narrative are explained while others are left to the canon for explanation. The audience members who are fans don't need the explanations and can take pleasure in feeling on the "inside." For example, when McCoy shouts out to "Nurse Chapel" in the 2009 film, attentive fans will catch the reference while the non-fan viewer likely would miss it. Working with familiar characters, to whom the audience is already attached, provides the chance to remind the audience of the pleasure they've already experienced with that narrative and to add new pleasure to that tradition. There is a delicate balance at work between fulfilling expectations and providing new direction, such as taking characters on unexpected paths (such as the romance between Spock and Uhura in the 2009 film).

In my broader analysis, I approach rebooted texts as existing at the convergence of canonical history, new visions, and incredibly high expectations and so I focus not only on the rebooted texts as the latest iterations of well-known franchises but also as responses to the vast potential such inter-generational narratives allow. Narrative theory allows me to trace the connections among the re-imagined versions, the franchise canon, and the cultural conditions in place at the time of the reboot.

And key to that analysis is Bal's summary of the theory of narrative texts that is built around a three-layer structure:

Text: "in which an agent relates ('tells') a story in a particular medium."

Story: "a fabula that is presented in a certain manner."

Fabula: "a series of logically and chronologically related events that are caused or experienced by actors" (1999, 5).

Perhaps the most difficult distinction to grasp, at least for me, is that between story and fabula, which Bal clarifies in this way: "the difference between the sequence of events and *the way in which* these events are presented" (1999, 6), with a fabula representing "a logic" that encompasses "events, actors, time, and location" that is then "organized in a certain way into a story" (1999, 7).

This distinction is helpful, for example, in understanding the two different narrative experiences my nephew and I have with the *Star Wars* saga: while we both will eventually encounter the same fabula (series of events), I will have encountered them in what I am calling "release" order, *Episodes IV* through *VI*, and then *I* through *III*. He, on the other hand, will encounter the narrative in more or less chronological order (*Episodes I* through *VI*, with a delay in seeing *III* until he's older). In some ways, he and I will experience different "stories," to use Bal's conceptual framework, because of this relationship "between the order of the events in the story and their chronological sequence in the fabula" (1999, 80).

I can illustrate this distinction by referring to the first appearance of two incredibly iconic characters from the series: R2-D2 and Yoda. For my nephew, who will experience the movies in fabula or chronological order, the appearance of R2-D2 in *Episode I* is unremarkable. He wouldn't have any idea of the significance of this "little droid" in the overall narrative; instead, it's just one of several astro-droids we've already seen. And yet, when I saw *Episode I* on opening night in May 1999, a small cheer and general buzz went up in the movie theater when Natalie Portman, playing Queen Amidala in disguise, announced the heroic droid's designation as "R2 D2." Turning the experience around, then, when I first saw *Empire Strikes Back* in 1980 and a little green puppet appeared on the screen in the swamp planet of Dagobah, I had no idea the crucial role that character would play in the story (let alone the cultural significance the mere name, "Yoda," engenders...but that's another paper). For my nephew, however, who insists on calling the character "Master Yoda," that moment would lead to a cheer at the reappearance of a pivotal actor within the fabula after an absence in *Episode IV*. I can even imagine, if the movies had been created and released in fabula order, a significant "head turning moment" when Yoda appears on the screen for the first time in *Empire*.

This phenomenon of the "head turning" moment is actually pivotal in the reboot experience from a fan perspective. It relates to a scene, snippet of dialogue, or some other cinematic feature that causes audience members to turn to their neighbors and comment quietly. This is best observed from the back of a movie theater, as the shadowed heads of those in front of us seem to move in unison. One of these moments in the new *Star Trek* film is the "red shirt" moment in which we are briefly introduced to Engineer Olsen, who is in fact wearing a red space-jump suit, just before he is killed by floating into a massive energy pulse. This seems to be an obvious nod to fandom and our instant recognition of the *red shirt*, which maps to Bal's "text" designation because of the visual nature of this narrative element.

Even though Bal's analysis is rooted primarily in traditional print narratives, we

can use her definition of description as "a textual fragment in which features are attributed to objects" (1999, 36) to examine not only Olsen's red shirt, in which the canon works "extra-textually" to attribute the feature of "soon to die" to his character, but other nods and homages within the film to canon as well. For example, Bal notes that motivation and description are integrally connected and that "a character must have both the time to look and a reason to look at an object" (1999, 37), which we can see in the film when the Enterprise first appears and Kirk and McCoy view the "new" flagship from their position within a shuttlecraft. The first shot of the iconic Enterprise within this reboot would be remarkable regardless of the textual features through which it is presented but by relying on and in subtle ways acknowledging the canonical importance of that first view for those two characters, the creative team behind the 2009 film is navigating incredibly complex narrative territory.

Now that the three basic levels of narrative have been delineated, I'd like to take my remaining time demonstrating how they can be used to articulate and explore the reboot experience from the fannish perspective.

Starting back at the level of the fabula, Bal's definition provides three elements through which we can examine a reboot in relation to both its canonical and cultural context: events, actors, and setting. For example, the opening crawl of the 2004 *Battlestar Galactica* mini-series establishes right from the start the "event" that I have argued in previous papers is the defining distinction between the reboot and the original narrative: "The Cylons were created by man..." Even though this event takes place, chronologically, before the events narrated in the mini-series itself, it is difficult to overstate the significance of this fabula-level change for the narrative experience as a whole. This event "break" also overlaps with a change in the *Galactica* fabula that occurs at the "actor," or, for most intents and purposes character, level: the evolution of Cylons from "toaster" to human-appearing models.

Another "actor" change, however, is nearly as significant, though perhaps not as immediately obvious: the strained relationship between Admiral William Adama and his son, Apollo, that I previously mentioned. This modification between versions, however, is one that perhaps requires more in-depth knowledge of the narrative canon to identify and appreciate. In other words, while casual viewers may realize that the Cylons as "humanity's children" is a departure from the original series, and of course cannot miss that Tricia Helfer (as Caprica 6) looks nothing like the 1970s era Cylons, they may not notice that the creators of the rebooted *Galactica* clearly, and deliberately, added layers of character conflict by highlighting, repeatedly, that all is not well in the house of Adama.

The third element of fabula in Bal's scheme, setting or place, is perhaps the least dramatic of the differences among and within our three reboots for today but this category can nonetheless help us consider the consequences of, for example, the loss of a key setting in the *Star Trek* reboot (when Vulcan is destroyed) as well of the tensions among the colonies that emerges within the *Galactica* reboot. In addition, looking at the role of setting allows us to trace the influential, yet divergent, roles of the Lars

Homestead location within the two viewing orders (chronological versus release).

Moving to the level of "story," which Bal defines as "a fabula that is presented in a certain manner" (1999, 5), we see not only the consequence of differing sequences in the two *Star Wars* trilogies (chronological versus release order) that I referenced earlier when it comes to fan reactions to characters such as Yoda and R2 D2, but also to events, such as Obi-Wan picking up Anakin's lightsaber at the end of *Episode III*, which looks innocuous in chronological viewing but is incredibly significant in release order because that conveys to fans Obi-Wan's ability to pass the weapon on to Luke in *Episode IV*. Sequence plays a significant, but fundamentally different, role in the *Star Trek* reboot, which, as we all know, relies on the tried and true science fiction plot of time travel and alternate realities. In this narrative, the "original" Spock, sometimes called Spock Prime in fandom, acts as the holder of the original fabula within the new story, providing in the 2009 film a bridge between the sequence fans are familiar with from the original narrative and the reimagined (and eventually divergent) fabula. In other words, while many elements of the original fabula have been altered in the reboot, the presence of Spock Prime also allows us to use the narrative concept of sequencing (or "order" as other schools of narratology label the phenomenon) to trace the connections and deviations among the *Star Trek* stories.

A second element of the story level in Bal's analysis is that of focalization, or "the choice...made from among the various 'points of view' from which the elements can be presented...[which] 'colors' the story with subjectivity" (1999, 8). While focalization is more often a fruitful line of analysis in print narratives, where there is more than likely an identifiable narrator and point of view (first-person, third-person, etc.), rather than film and television, where the camera allows for significantly more information to be conveyed, this concept does allow us to highlight interesting elements of the reboot experience in our three targeted narratives. For example, the *Star Wars* saga, told in chronological order, is the story of Anakin Skywalker's rise and fall and redemption. When viewed in release order, the focalization is split: the "first" three reflect the point of view of Luke Skywalker and (to a lesser extent), his sister Leia, while the prequel trilogy is "focalized" primarily on their parents' story. This distinction is even directly invoked in Obi-Wan's classic line from *Return of the Jedi*: "many of the truths we cling to depend greatly on our own point of view" (1983). And, of course, the extra-textual influence of canon further complicates the application of focalization between print and tele-visual texts because the information provided from the focalizer's point of view is not received by the audience in a vacuum, but rather within the vast, detailed history available for such inter-generational narratives.

This distinction leads us back to the textual level, which again Bal distinguishes from story and fabula as the experience "in which an agent relates ('tells') a story in a particular medium" (1999, 5). The textual category is, of course, where my application of narrative theory to reboots deviates most from the field's roots in early twentieth-century Formalism and Structuralism for predominantly historical reasons. After all, such theories could not be faulted for not anticipating the creation and proliferation of film and television media, not to mention the recent explosive advancement in digital

effects. But it also points to an “elephant in the room” problem when analyzing reboots: as technology advances, the tools available for telling a narrative increase exponentially. Thus, I have had to draw a subtle and admittedly blurry line between those reboot elements that exist primarily because of the technological advances (for example, R2 D2’s seeming loss of flying ability between trilogies when viewed in chronological order) from those that are more substantive to the narrative experience (such as the decisions made by JJ Abrams in editing and sound effects during the opening scene of the 2009 *Star Trek* film, during which the story and fabula are being upended almost without viewers realizing it).

Thus, while keeping in mind the effect of medium on the analysis, we can use Bal’s definition of description as “a textual fragment in which features are attributed to objects” (1999, 36) to explore the visual cues and clues that permeate rebooted texts, starting with costume design. From one perspective, the red shirt in *Star Trek* I mentioned earlier is simply that, a costume, a by-product of the many details involved in creating a science fictional universe. But when looking at the narrative at a textual level, we can see that even costume design is much more than fabric construction and aesthetic decisions made by a production team. And the weight of such decisions in a rebooted text can be significant because of the layers of meaning inherent within something as seemingly trivial as costumes and props. For example, the visual continuity between the uniforms of the Clone Troopers (in *Episodes II* and *III* of *Star Wars*) and the Storm Troopers (*Episodes IV-VI*) is a visual sign within the overall text that provides significant information to the fan-viewer, regardless of in which order the narrative is experienced.

Similarly, the role of musical score and other sound effects within reimagined texts is rich with analytical potential as well, a textual feature that is not available in traditional printed narratives (though, of course, there are always exceptions). The score to the 2009 *Star Trek* includes hints and gestures towards the familiar music from the original narrative while the sounds produced by such iconic devices as communicators are replicated nearly identically. And, of course, attentive fans cannot help but catch strains of the Imperial March woven deliberately, and more and less obviously, throughout the prequel trilogy. This musical continuity is particularly apparent to those fans who experience the *Star Wars* narrative entirely extra-textually in the *Star Wars in Concert* shows and other fan events.

While I realize that this short paper glosses over much of the complexity not only in the narratives under analysis but also of the theoretical concepts I’ve used, I hope that this brief review conveys a glimpse into how we can capture and understand fan experiences and reactions when beloved franchises are rebooted. As an Aca-Fan myself (to invoke Henry Jenkins’s famous combination identity of academic and fan), applying concepts of narratology has allowed me to articulate and structure my own intuitive responses to the reboot experience when it comes to these three inter-generational narratives. As the size and scope of this year’s WorldCon demonstrates, there is much to be found when we work at the intersection of the text, canon, and the fan, and narrative theory offers a wealth of tools with which to convey and examine that experience.

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Linda Kay Hardie

University of Nevada, Reno, Nevada, USA

String Theory Frontiers: Tying Together Outer Space and the Inner Spaces of Ocean and Internet in Vonda N. McIntyre's *Starfarers*

Abstract: The invisible cords of string theory physics not only propel Vonda McIntyre's starship, opening the frontiers of the universe to Earth's explorers; they also serve as connections. McIntyre's novel *Starfarers* theorizes that a starship could use these multi-dimensional strings to catapult into other star systems in almost no time at all. But physical frontiers of space exploration are only the beginning. The strings serve not only as a device for faster-than-light travel and provide a literal threshold to the rest of the universe for Earth's explorers, but also as a metaphor tying together all sentient life, as the starship makes first contact with alien intelligence at the end of the novel.

Outer space is not the only frontier explored. The action begins with Earth's inner space: the ocean, where protagonist J.D. Sauvage, an alien contact specialist, has learned her craft studying the relationships between normal humans, genetically-altered sea-dwelling humans, and the orcas they live with. The divers, as the altered humans are called, live in the ocean, seldom venturing on shore. Divers were once humans who were transformed – gaining fur and webbing between their fingers and toes and other changes to make them better able to live in the ocean – by a genetically-altered virus that changed them, as adults. The first generation of natural-born divers is just beginning to grow up. The status of divers in society is unclear, because genetic work on humans has recently been outlawed by an increasingly conservative American government, which seeks control over people's lives.

The story also explores a third technological and social frontier: Cyberspace, where humans are connected with brain-linked wifi to Arachne, as they call their artificially-intelligent multi-worldwide web. McIntyre, in this 1989 novel, has extrapolated past the smartphones of our young twenty-first century into brain-implanted hardware to connect people to the web directly, without an interface.

In the novel, McIntyre explores and examines the issues of settlement versus displacement, the difference between exploration and exploitation, and what constitutes a frontier, as well as the boundaries between various frontiers: outer space and the inner spaces of ocean and cyberspace; the technology of war (weapons) and of peace and commerce (the semi-sentient internet that everyone is wirelessly linked to); and the social divides between war and peace, politicians and academics, and an enthusiastic agent of an increasingly fascist American government and an exiled Russian cosmonaut, tired of war.

Nick Kanas

University of California, San Francisco, USA

Psychological Issues in Deep Space

Abstract: Planning for the first expedition to Mars envisions a round-trip mission duration of around 2.5 years. However, this time frame is much less than that expected on decades-long expeditions to the outer solar system or centuries-long expeditions to the stars. Deep space missions will introduce a number of new psychological and interpersonal stressors, such as unprecedented levels of isolation, delayed communication with the Earth, high levels of crewmember autonomy, great dependence on computers and other technical on-board resources, and a view of the Earth as an insignificant dot in space.

Based on his NASA-funded research and on anecdotal reports from space, Dr. Kanas will discuss the psychological issues involving missions to the outer solar system and beyond, including those related to new technologies being considered for interstellar missions, such as traveling at a significant fraction of the speed of light, suspended animation, and the creation of giant self-contained generation ships of colonists who will not return to Earth.

Published as Kanas, Nick. From Earth's orbit to the outer planets and beyond: Psychological issues in space. *Acta Astronautica* 68 (2011) 576–581.

June M. Madeley

University of New Brunswick, Saint John, Canada

Frontiers of Fandom: A comparative analysis of membership data from two Worldcons that have taken place outside of the USA

Abstract: This paper is part of an on-going project on the history, structure and organization of Worldcon. Worldcon has lived up to its titular international scope with 18 conventions set outside of America since 1939. In fact half of the cons in the 2000s were held outside of America. I conducted an online survey of attendees of Anticipation (Worldcon 2009 in Montreal) and Aussiecon 4 (Worldcon 2010 in Melbourne) and I intend to conduct a similar survey of the attendees at Renovation. The survey covers variables including: demographics, patterns of attendance at Worldcon over time, member activities at the convention, participation in con running over time, and factors considered in bid voting. This paper will focus on the comparison of the data collected at the North American con and the con held in Australia and consider the matter of location as a key variable impacting volunteerism, con running, and attendance at Worldcon.

Ryan Nichols & Justin Lynn
California State University, Fullerton

A Science of Science Fiction: Applying Quantitative Methods to Genre Individuation

Abstract: Science fiction scholarship resembles fantasy writing in this respect: authors in both genres play tennis without a net. So we tentatively conclude having read tens of articles and book chapters on the notorious 'definition' of science fiction written by science fiction scholars and literary theorists. In this paper, authored by an analytic philosopher and an evolutionary psychologist, we attempt to add diversity to the voices of science fiction scholars, and diversity to the methods used to analyze science fiction literature. In our WorldCon presentation we hope to bring (in our opinion, needed) science to science fiction scholarship as pertaining to questions about the definition of the genre. We do not propose to offer speculative a priori characterizations about the definition of the term 'science fiction'. We do not characterize the genre in terms of its historical, mutable social context, and other intractable properties. We do not claim to offer a philosophical analysis of 'science fiction' in terms of necessary and sufficient conditions. Rather we offer a quantitative profile of science fiction literature in terms of unique literary facts about the genre as assessed through scientific analysis of the linguistic content of tailored databases of science fiction and fantasy texts.

We motivate our method first by documenting interests of science fiction scholars in relationships between language and science fiction literature, and second by showing that current definitions of 'science fiction' face challenges and shortcomings. The present study uses the Linguistic Inquiry and Word Count tool to analyze and compare several databases, so we describe it and justify its utility for experiments in genre. Experiment 1 composes a between-authors study using short stories from science fiction and fantasy. Experiment 2 composes a study designed to examine quantitative variance across the science fiction/fantasy genre divide within the writings of authors who publish in both genres. Results reveal highly significant variance along several sets of variables, most importantly for cognition (vindicating Suvin's hypotheses), sociality and perception.

§1 situates the goal of offering a quantitative profile of science fiction in light of challenges and shortcomings of previous definitions and characterizations of 'science fiction' offered by literary theorists. §2 contrasts our scientific, quantitative method for the study of genre and describes our use of LIWC (pronounced 'luke'), the Linguistic Inquiry and Word Count tool. §3 presents Experiment 1, a between-authors study, by describing the components of three databases of short science fiction and short fantasy literature with stories of about 450 authors, and by describing our inferences based on data extracted from those databases with LIWC. §4 presents Experiment 2, a within-authors study, by describing the components of two databases of long science fiction and long fantasy literature, one composed of Orson Scott Card's fantasy and

Abstracts

science fiction novels and the other composed of Lois McMaster Bujold's fantasy and science fiction novels. We then describe our inferences based on data extracted from those databases with LIWC. [Time constraints may prevent presentation of Experiment 2 during our WorldCon session.] Following the presentation of our experimental results, §5 draws tentative but data-driven conclusions about the quantitative profile of science fiction, specifically about its linguistic form and its the cognitive content vis-a-vis comparison with fantasy literature. We follow remarks about challenges and shortcomings to our project and its methods with concluding words about the future of the science of genre and genre theory.

Kim Paffenroth

Iona College, USA

Living in an Undead World: Redeeming Values in The Walking Dead

ABSTRACT: This paper will examine the recent hit television series *The Walking Dead* (with some references back to the comic books on which it is based, especially on those points where the television series has added elements not present in the original). My contention is that Darrabont continues much of the critique of modern society started by Romero's *Night of the Living Dead* and continued (with some development and variations) in his subsequent zombie films: in both *Night* and *Walking Dead*, the government, media, and scientific communities are either powerless to stop the crisis, or actively worsen our protagonists' plight. But this point of comparison makes one element stand out as a glaring difference: whereas Romero sees the family and romantic attachments as just more deadly threats to his characters, Darrabont consistently portrays these as the only possibly redeeming value left in an undead world. Such optimism (of which there are glimpses in Romero's later zombie films, especially *Land of the Dead*) probably accounts for the series' wide appeal, as well as showing the adaptability of the zombie trope and genre.

(Complete paper to be published in *Triumph of the Walking Dead*, edited by James Lowder. Ben Bella, 2011. Pp. 218-230.)

Paul Abell

NASA JSC, USA

Near-Earth Objects: Targets for Future Human Exploration, Solar System Science, and Planetary Defense

Human exploration of near-Earth objects (NEOs) beginning circa 2025 - 2030 is one of the stated objectives of U.S. National Space Policy. This presentation by Dr. Paul Abell will discuss some of the physical characteristics of near-Earth objects (NEOs) and review some of the current plans for NEO research and exploration from both a human and robotic mission perspective.

Andrew Ferguson

University of Virginia, USA

Sling the Dargest Dangeroo: R.A. Lafferty's Science of Story Areas

Andrew Ferguson contends that no other writer of SF is as successful as R.A. Lafferty in adapting oral narrative techniques to the written page. Drawing in Lafferty's writings and the work of scholars and fan critics, Ferguson demonstrates how Lafferty set himself against, and provided an escape from, SF's fetishization of the written, technologized word.

Keira Hambrick

University of Nevada, Reno, USA

Destroying Imagination to Save Reality: The Apocalyptic Frontier in Science Fiction

Keira Hambrick explores how the apocalyptic frontier environments of Paolo Bacigalupi's *The Windup Girl* are constructed and engaged, and how the novel's environmental and social frontiers reflect and engage with such contemporary real-world concerns as climate change, overpopulation, and food production.

Sharon D. King

UCLA Center for Medieval and Renaissance Studies, USA

The Boundary Beneath: A Glimpse at Underwear in Speculative Literature and Film

Portrayals of undergarments in speculative fiction and film point to the frail, barely protected, sometimes frivolous, often erotic, and ultimately grubby underbelly that characterizes and yet separates humanity from most fantastic realms. Beginning with a short video overview, Dr. King's presentation will explore the topic of the frontier beneath through religion and folklore; early modern, juvenile, and graphic literature; and TV and feature film.

Douglas A. Van Belle

Victoria University of Wellington, New Zealand

Writing About Politics in Speculative Fiction: Insights from Crossing the Frontiers between Novels, Films, Textbooks and Research

Dr. Van Belle compares the way authors write politics into fiction to the way academics write about politics in fiction as a research endeavor and how they write about politics in fiction from a pedagogical perspective. A novelist and screenwriter as well as an academic, Dr. Van Belle examines academic fallacies using examples from his own experiences and from recent speculative fiction analyzed from the perspective of author, researcher and teacher.

Scholars, Science Fiction, and the Pursuit of Knowledge. A Panel.

Panelists: June M. Madeley (M), Ryan Nichols, Heather Urbanski, Douglas A. Van Belle

Our panel of scholars discuss their experience working with science fiction in academia, both research and teaching, focusing on how and why they use science fiction in their scholarly work, how that work is received, and how it relates to their work on other topics.

Bios

Paul Abell

Dr. Paul Abell is the Lead Scientist for Planetary Small Bodies assigned to the Astromaterials Research and Exploration Science Directorate at the NASA Johnson Space Center in Houston, Texas. Paul has been studying potentially hazardous asteroids and near-Earth objects for over 10 years and is a visiting astronomer at the NASA Infrared Telescope Facility at Mauna Kea Observatory, Hawai'i. He was a telemetry officer for the Near-Earth Asteroid Rendezvous spacecraft Near-Infrared Spectrometer team and is a science team member on the Japan Aerospace Exploration Agency (JAXA) Hayabusa near-Earth asteroid sample-return mission. Paul, his wife Amy Sisson, and their feline companions have lived in Houston, Texas since December 2003.

Kathryn Allan

Kathryn Allan completed her PhD (English) at McMaster University in 2010. Her doctoral thesis, *Bleeding Chrome: Technology and the Vulnerable Body in Feminist Post-Cyberpunk Science Fiction*, is awesome. She is currently self-employed and in love with all things science fiction.

Nolan Belk

Nolan Belk is currently a PhD candidate at UNC-Greensboro where he is completing a dissertation on the rhetoric of feminist science fiction. Additionally, Nolan is lead instructor of English at Wilkes Community College where he teaches a range of classes including Science Fiction Literature and Human Values and Meaning. A rabid fan of *Buffy, the Vampire Slayer* and *Firefly*, Nolan is learning from Joss Whedon and others how the Hero Myth can work for everyone.

J. L. Evans

J. L. Evans is an independent scholar, recently graduated with a Masters in English from East Carolina University with a creative thesis focused on fantastic and speculative literature. In 2009, he was a finalist for the NC State University Short Story contest (judged by Samuel Delany).

Andrew Ferguson

Andrew Ferguson is a PhD candidate at the University of Virginia working in 20th and 21st-century literature and media theory. He holds MAs in Science Fiction Studies from the University of Liverpool and in English from the University of Tulsa, and has presented at a number of conferences, including talks on Lafferty at the International Conference on the Fantastic in the Arts, the University of Oxford, South Central MLA, and the Science Fiction Research Association. At present he is working with Lafferty's estate to bring his works back into print in critical, scholarly editions, while preparing for doctoral exams and dissertation.

Keira Hambrick

Keira Hambrick grew up reading her father's old copies of *Omni* magazine, and voraciously read science fiction. In college, she double-majored in Biology and English with a concentration in Poetry, hoping to merge reality, science, imagination, and Her Master's thesis (University of Nevada, Reno) investigates the use and effects of apocalyptic rhetoric in environmental literature. She hopes to continue writing science fiction and studying how the genre allows general readers to engage such complex real-world frontiers as climate change, overpopulation, and food production, among other issues.

Bios

Linda Kay Hardie

Linda Kay Hardie is an adjunct professor of composition at the University of Nevada, Reno and Truckee Meadows Community College. She has presented papers at the Rocky Mountain MLA and the Inter-mountain Graduate Conference. She's a professional member of the Society of Children's Book Writers and Illustrators and the international Cat Writers Association, and has won numerous writing awards. Linda is the author of the children's picture book *Louie Larkey and the Bad Dream Patrol*.

Nick Kanas

Dr. Kanas is an Emeritus Professor of Psychiatry at the University of California, San Francisco. For over 35 years, he conducted research on people under stress, and he has over 200 professional publications. For the past 15 years, he has been a NASA-funded principal investigator, doing psychological research with astronauts and cosmonauts. Together with Dietrich Manzey, he is the co-author of the book *Space Psychology and Psychiatry* (2nd ed.), which was given the 2004 International Academy of Astronautics Life Science Book Award. In 2008, he received the International Academy of Astronautics Life Science Award. He has also written a book tracing the history of celestial cartography entitled *Star Maps: History, Artistry, and Cartography*.

Dr. Kanas has been an amateur astronomer for over 50 years and is an avid reader of science fiction. He has presented talks on space psychology and on celestial mapping at several science fiction conventions (including Worldcons in Denver and Montreal), published two articles on space psychology in *Analog Science Fiction and Fact* magazine, and has written several science fiction short stories.

Sharon D. King

Sharon D. King (Ph.D., Comparative Literature, UCLA, 1995) is a scholar, translator, and writer with publications and presentations primarily in the areas of medieval and Renaissance theatre and literatures of the fantastic.

June M. Madelley

June M. Madelley is an Assistant Professor in the Information and Communication Studies Program at the University of New Brunswick, Saint John (located in New Brunswick, Canada). Her PhD was completed in Sociology at McMaster University (Hamilton, Ontario, Canada). Current research takes a focus on manga and comic books with an eye to conducting some cross-cultural reception work in Japan and North America among male and female readers. Attending Nippon/Worldcon 2007 to facilitate this cross-cultural reception project has led to an interest in the history, structure and organization of Worldcon and a greater interest in fan studies.

Ryan Nichols

Ryan Nichols is currently a fellow in residence at the Center for Philosophy of Religion, University of Notre Dame, where he researches the cognitive science of religion and the history of philosophy. He has a standing tenured position at Cal State University Fullerton, in Orange County. Ryan co-wrote *Philosophy Through Science Fiction* (Routledge 2009), a guide to contemporary philosophical issues through science fiction literature, and organized a conference on Science Fiction and Philosophy in 2007. An avid listener to Escape Pod, his favorite SF author is Iain M. Banks.

Kim Paffenroth

Kim Paffenroth is a professor of Religious Studies at Iona College. Among many other books on various topics in Religious Studies, she is the author of *Gospel of the Living Dead: George Romero's Visions of Hell on Earth* (Baylor, 2006) which won the Bram Stoker Award. Since then I have written several zombie novels, as well as essays and conference papers on the living dead.

Bios

Heather Urbanski

Heather Urbanski holds an MA in Writing from Rowan University and a PhD in English from Lehigh University. Her publications include a bibliographic survey of the genre, *Plagues, Apocalypses and Bug-Eyed Monsters: How Speculative Fiction Shows Us Our Nightmares*, and the 2010 edited collection, *Writing and the Digital Generation: Essays on New Media Rhetoric*, which examines various digital media activities of contemporary fandom. Her next book, *Rebooting the Science Fiction Franchise*, is under contract with McFarland.

Douglas A. Van Belle

Douglas A. Van Belle is a Senior Lecturer in Media Studies, at the School of English Film Theatre and Media Studies, Humanities and Social Sciences Victoria University of Wellington. As well as various academic publications, he writes short form speculative fiction and screenplays.

Schedule Summary

Thursday, August 18, 2011

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|------|---|----------------------|
| 11am | String Theory Frontiers: Tying Together Outer Space and the Inner Spaces of Ocean and Internet in Vonda N. McIntyre's <i>Starfarers</i> | Linda Kay Hardie |
| 12pm | The Time Paradox | J.L. Evans |
| 2pm | Destroying Imagination to Save Reality: The Apocalyptic Frontier in Science Fiction | Keira Hambrick |
| 3pm | Sling the Dargest Dangeroo: R.A. Lafferty's Science of Story Areas | Andrew Ferguson |
| 4pm | Writing About Politics in Speculative Fiction: Insights from Crossing the Frontiers between Novels, Films, Textbooks and Research | Douglas A. Van Belle |

Friday, August 19, 2011

- | | | |
|------|---|--|
| 10am | A Science of Science Fiction: Applying Quantitative Analysis to Genre Individuation | Ryan Nichols |
| 11am | The Promise and Peril of Rebooting a Beloved Franchise: A Narratological Analysis | Heather Urbanski |
| 2pm | Feminist Science Fiction and the Sociological Imagination | Nolan Belk |
| 3pm | Living in an Undead World: Redeeming Values in <i>The Walking Dead</i> | Kim Paffenroth |
| 4pm | Scholars, Science Fiction, and the Pursuit of Knowledge | June M. Madeley (M),
Ryan Nichols, Heather
Urbanski, Douglas A. Van
Belle |

Saturday, August 20, 2011

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| 10am | Psychological Issues in Deep Space | Nick Kanas |
| 11am | Technology as Cure? Virtuality, Proxies, and the Vulnerable Human Body | Kathryn Allan |
| 1pm | Frontiers of Fandom: A comparative analysis of membership data from two Worldcons that have taken place outside of the USA | June M. Madeley |
| 2pm | The Boundary Beneath: A Glimpse at Underwear in Speculative Literature and Film | Sharon D. King |
| 3pm | Near-Earth Objects: Targets for Future Human Exploration, Solar System Science, and Planetary Defense. | Paul Abell |

Original Call for Papers

Renovation World Science Fiction Convention Academic Programming *Speculative Frontiers: Reading, Seeing, Being, Going*

Renovation, the 69th World Science Fiction Convention, will be held in Reno, Nevada, August 17-21, 2011, and will run a three-day Academic Program from Thursday August 18 through Saturday August 20. The theme is *Speculative Frontiers: Reading, Seeing, Being, Going*, reflecting Renovation's overall theme of *The New Frontiers*.

Renovation's Academic Program invites papers reflecting on real and imagined frontiers whether physical, social, or technological. The Renovation Academic Program is an interdisciplinary conference; papers are invited from all disciplines including the sciences, education and psychology. Short papers (approximately 15 minutes to allow time for discussion) are encouraged, and authors are reminded to consider not only an audience of their peers, but an educated and motivated general audience.

Approaches of interest include but are not limited to the following:

- Historic and current use of the frontier as metaphor and device in speculative fiction
- First contact speculation, both fictional and scientific
- Speculative fiction's consideration of the relationship between exploration and exploitation, and between settlement and displacement
- Fictional and real boundaries and exploration in space, technology, and society
- The effects and side-effects of such exploration
- Speculative concepts of historical and future frontiers
- Consideration of current edge and boundary work in speculative fiction, including cross-genre work and cross-format delivery/distribution.

We are interested in how these themes are reflected in fandom, publishing, art, media, gaming, social media, and other new technology. Other topics related to sf, fantasy, and horror are also welcome, particularly those exploring the work of any our Guests of Honor (Tim Powers, Ellen Asher, Boris Vallejo, Charles N. Brown) or Special Guests (Bill Willingham, Tricky Pixie).