Docile bodies, supercrips, and the plays of prosthetics

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International Journal of Feminist Approaches to Bioethics, Volume 3, Number 2, Fall 2010, pp. 63-89 (Article)

Published by Indiana University Press
DOI: 10.1353/ijf.2010.0012

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Abstract

In this paper, I consider the implications of representations of women with prosthetics in popular culture, specifically Heather Mills and Sarah Reinertsen. Using analyses from feminist and disability studies, I explore prosthetized bodies as docile bodies "fixed" to aesthetic and functional near-perfection. I then employ narratives emphasizing the complex corporeal experience of prosthetics to destabilize this seeming docility. I argue that "docile" readings are problematic and insufficient, building from faulty grounds of distinctions between "natural" and "technological," and "therapy" and "enhancement." Finally, I posit a more complex, phenomenological epistemology from which to consider prosthetized bodies and to reground prosthetic interpretations.

Introduction

In 2007, Oscar Pistorius, a South African sprinter, was training and competing in preparation for the 2008 Beijing Olympic trials. Having had double transtibial

amputations when he was eleven months old, Pistorius runs on technologically advanced prosthetics known as "Cheetah" legs. In January 2008, the International Association of Athletics Federation (IAAF) ruled him ineligible for IAAF competitions (including the Olympics) on the grounds that these carbon-fiber blade prosthetics were technical devices that gave him an advantage over other able-bodied sprinters. Pistorius appealed this ruling with the Court of Arbitration for Sport (CAS), which eventually issued a ruling revoking the IAAF's decision. In the text of the arbitration, CAS noted, "The history of this matter is remarkable, and possibly without precedent" (CAS 2008).

"Without precedent"—what exactly is new here? Certainly neither amputations nor prosthetics. Organized sports competitions for disabled athletes are also not new: the first Paralympics took place in Rome in 1960, and these were preceded by competitions dating back to 1948.[1] Prosthetics in the Olympics are not even new: in the 1904 games in St. Louis, Missouri, George Eyser won six medals in gymnastics—unhindered by his wooden left leg. Despite this history, Pistorius's story stands out, due to both his high-tech prosthetics and his achievements with them, sparking controversies over issues of ethics, fairness, and enhancement. The heart of Pistorius's case lay in questions of performance and fairness in competition. No one contested the therapeutic use of prosthetics, but rather whether, in Olympic circumstances, this use (and his specific prosthetics) instead constituted "enhancement": did his prosthetics make him super-abled? While perhaps a seemingly simple question, theoretically answerable through biomechanical testing, the issues "without precedent" run much deeper.

Pistorius's story is not the only situation in the public eye: in the past few years, stories about people with prosthetics—from veterans of recent wars to young children; from models-as-dancers to athletes-as-models; from those born with bodies that defy norms to those adjusting to bodies changed by unexpected traumas—have proliferated in the media. Though the individual stories differ, the tellings reveal a few themes: the overcoming of tragedy, the question of therapy versus enhancement, and the celebration of technologically advanced prosthetics. These prosthetic appearances are notable both in the attention paid by the media, and quite literally: technologically advanced prosthetics are often *not* mimetic, *not* aesthetically fashioned after biological limbs, but instead are quite obviously technologies. In *Technologies of the Gendered Body*, Anne Balsamo, considering the appearance of such fictional figures as Max Headroom, the Transformers, and RoboCop, names the 1980s as the "decade of cyborgs," the "historical moment when a high-tech human hybrid moved off the pages of

science fiction novels into everyday life" (Balsamo 1996, 17). Today, stories of people with prosthetics demonstrate another move, from fictional cyborgs to literal—and highly visual—embodiments of such "high-tech human hybrid[s]," and their representations in "everyday life" are significant; we might even consider this the "decade of the prosthetized body." With these literal embodiments come demonstrations of both public fascination and cultural anxiety about prosthetic bodies, but more importantly about what those bodies challenge: notions of the "normal" or "natural" body; the purpose of prosthetics medically and socially, as therapy and enhancement; and the very constitution of the bodies in relation to technologies.

Two other particularly interesting representations of such literal embodiments also came to public attention in 2007: Heather Mills, who competed on *Dancing with the Stars* [*DWTS*]; and Sarah Reinertsen, a tri-athlete who was featured in the 2007 Lincoln "Dreams" advertising campaign (television commercials and print ads).[2] These women represent complicated figures open to adulation, apprehension, and interpretation—women whose distinct stories nevertheless evoke similar anxieties about technological interventions on bodies. In this paper, I read the visual representations of the bodies of Mills and Reinertsen, considering their social interpretations and implications. While the concerns of Pistorius's case resonate here, as prosthetized *women* in the media, their stories and representations raise additional issues and demand particular analysis through feminist and disability studies lenses. Initial readings from these perspectives suggest potentially dire conclusions: the (further) reification of (aesthetically) perfect, (now) able-bodied women "fixed" (as in both "to secure" and "to repair") and enhanced to degrees unattainable by most; or, restated in a Foucauldian frame, prosthetized women's bodies as penultimate docile bodies. There is validity in this reading; however, by unpacking such claims, I argue that these readings are problematic and insufficient, and pull from faulty grounds of distinctions between "natural" and "technological," between "therapy" and "enhancement." I turn to the messy experience of corporeality to both destabilize and reground prosthetic interpretations. Before such analysis, I first give specific, if idiosyncratic, close readings of the representations of Mills and Reinertsen, isolated in their limited contexts. From there, I explore the issues of Foucauldian docility through feminist critique as well as through disability studies. Complicating these through counterexamples and different theoretical perspectives, I finally posit the need for a more complex, phenomenologically based frame from which to consider prosthetized bodies.

Contests, contexts, concepts

She makes you feel like dancing

In the spring of 2007, Heather Mills made quite an impression on *DWTS*, an ABC television show in which celebrities pair with professional dancers, competing for best performances. Despite international recognition as an activist and a former model, Mills's "stardom" was only tangentially represented by these achievements; instead, her status as an amputee with a prosthetic leg underscored her participation in the competition. She addressed her goals for her performance in an interview with Nick Watt, stating, "What I'd wanna show is that you can actually get out there and do anything that you wanna do with an artificial leg." Her performance on the show was in part notable for its lack of notability: she appeared "normal," both in function and in appearance—her prosthetic looks like a "regular" leg and was often provocatively displayed beneath skirts with daring side-slits. Throughout her stay in the competition, judges often commented on how "able" she was, despite/with her prosthetic leg:

> "I think you're an inspiration to people to get out and dance." (Len Goodman) "I think I'll have to rename you as the incredible Heather Mills." (Bruno Tonioli) "One, two, three legs, I don't care how many—you did a fantastic job." (Tonioli)[3]

These remarks suggest a very positive commentary about Mills: Mills presents (and represents) someone with a disability, a prosthetic, embracing life and achieving, not being restricted by her difference. However, a simultaneous and different dialogue also emerged. During her performance, Mills was also fodder for extensive jokes, particularly among the late-night shows. She is a contestable figure—a pseudo-celebrity with a questionable ethos—arguably known more for her marriage to former Beatle Paul McCartney than for her own accomplishments. Mills and McCartney separated in 2006, and Mills's reputation floundered in the subsequent media circus surrounding the marital demise. Notably *DWTS*, in the reality television genre, also has ethos problems of its own; falling firmly in the realm of popular culture, it is a fun show with little substance. Humor is thus neither unexpected nor inherently inappropriate. Since Mills is a "celebrity" and willingly joined the show presumably to enhance her damaged image, she is in some ways an acceptable "victim" for the jokes. But the jokes did not only center on her personality—they focused on her prosthetic. Chatter in online forums revealed tremendous anticipation of her prosthetic leg coming

off mid-dance, represented in part by a YouTube video that was an altered clip of one performance. When her partner dips Mills, she extends her leg; the video concludes with a comic graphic of the prosthetic leg popping off (complete with popping noise), and flying across the screen (Heather 2007). Other videos, used for comedy bits on shows like *Jimmy Kimmel Live*, emphasized her mechanization, for instance showing her leg with a rocket-booster used to improve flips. In sum, these "jokes" suggest at the least a partial rejection of Mills as a positive model of ability, at the most a deep anxiety about what prosthetized bodies mean in the realm of competition.

Dream a little dream

In 2007, the car manufacturer Lincoln began a new advertising campaign for the 2008 Lincoln MKZ. Called *Dreams*, the campaign included television commercials highlighting inspiring messages by people such as Harry Connick Jr., who drove through New Orleans (in the MKZ) while talking about his dreams for the rebuilding of his hometown. Another ad featured Sarah Reinertsen, a marathon runner who, like Mills, is a single above-the-knee amputee.[4] The commercial begins with Reinertsen driving the MKZ through Central Park; the viewer is positioned outside the car, and can see Reinertsen behind the wheel looking relaxed and happy (Lincoln 2007). We hear her in a voice over as she drives, calmly speaking each sentence, and pausing before each subsequent line: "I've never hiked the Grand Canyon. I've never climbed Mount McKinley. I've never biked across America." The car rolls to a stop, and Reinertsen begins to exit. Immediately obvious is her prosthetic, a black, carbon-fiber, C-shaped blade (the Össur Flex-run™). On her left side, her prosthetic leg emerges from the car first; built for function, it does not visually mimic a biological leg. She is wearing a form-fitting tank top and shorts, revealing her fit figure. She then states, "I've never won a marathon." She begins running, joining a group of other runners (without visible prosthetics). "Yet. My dream is to do extraordinary things every day." Reinertsen continues running, and the voice-over continues with the spokesman saying, "Introducing the new 2008 Lincoln MKZ. So agile, so responsive, it can take on any challenge. Life's calling—where to next?"

The *Dreams* campaign also included a related print advertisement (Reagan 2008). This two-page spread shows Reinertsen again in the park in New York. The background depicts a blue sky, a large bridge, and peaks of the skyline; trees obscure part of the bridge/skyline view and frame the back edge of the grass, which extends from the back to the foreground. On the left page, the MKZ sits

in the grassy mid-ground, silver with black tires (and black shadow beneath), sun glinting off the windshield and hood. Centered on the right foreground is Reinertsen, in a black sports bra, tight running shorts, and one black sneaker. She stands stretching, legs spread, right hand extending over her head, left hand on her hip. She gazes, smiling, into the distance, her long, blond hair framing the left side of her face. Distinct muscles in her right leg, stomach, and right arm emphasize her fit physique. Her left prosthetic leg, mostly black except for the metallic knee, is also noticeable because of the short shorts, and shows in contrast to her fleshly right leg. On the right page, above the bridge and next to her extended arm, the following text appears:

> Don't ever give up on what you believe in.
> Not once.
> Not ever.
> *My dream is to do extraordinary things every day*.
> Life's calling. Where to next?

Below this, next to Reinertsen's body, is this text:

> *Power On*
> My parents always treated me like any other kid. And when I fell, my mom didn't always rush to pick me up. "Sarah's going to pick herself up." It was a really important lesson for me to learn. For me to keep up, I always had to be tougher than the rest. And I think that's still true today.—*Sarah Reinertsen*

On the bottom right, next to Reinertsen's prosthetic leg, are printed Lincoln's logo, name, and tag phrase "Reach Higher." A line runs across the bottom of the page, right beneath Reinertsen; below this is the following text: "The new 2008 Lincoln MKZ with a 263-hp V6 and a smooth 6-speed automatic. So agile, so responsive, it can take on any challenge."

Analysis of Reinertsen's advertisements reveals two potential interpretations of her body and experiences: prosthetized bodies as ultimately normal (i.e., "fixed"; prosthetics for therapeutic use), and prosthetized bodies as ultimately technological (i.e., "enhanced"). This first interpretation builds from ethos and pathos appeals. The *Dreams* campaign is marketing lifestyle, banking on the emotional connection the audience feels with the dreams, and building the company's reputation from the presumed relationship between Lincoln and these dreams. In Reinertsen's ads, the pathos for the audience emerges from Reinertsen's ethos—her achievements in overcoming her perceived disability by becoming an accomplished runner. This is the "turn" in her commercial; while driving in the car, she

appears like any other average (i.e., "normal") person reflecting upon amazing physical feats she has not accomplished (climbing mountains, biking across nations). Most people have not done these things, and perhaps can relate to her words. When she steps out of the car, however, her difference is revealed—this coincides with her saying "I have never won a marathon." Suddenly, her feats are not so average. Sure, Reinertsen has not *won* a marathon, but she *competes*. She is clearly, visibly, an athlete, something few people can claim, and she is an athlete with a prosthetic; this simultaneously narrows the field of comparison and increases the awe of accomplishment. Regardless, she is, in this realm at least, "normalized" to an abled body. The print ad plays on an opposite construction; instead of emphasizing her difference, it emphasizes her sameness. In her own words, Reinertsen explains that her parents raised her to be "like any other kid": independent and self-sufficient. Except here, this sameness between Reinertsen and other kids only reinforces her difference: she could only be the same by working harder, being "tougher." She could only be the same, that is, through overcoming her difference. Her claim works in the same way as Mills's emphasized sameness, drawing attention to the very difference it seems to erase. I will return to the relevance of this. However, I first want to address the other construction here.

The second interpretation of this ad turns on the relationships of flesh and technology. Paramount in Reinertsen's accomplishment is her prosthetic—this very visible item of technology that is mimetic to an organic leg only in function, not appearance. In the print ad of the *Dream* campaign, her prosthetic resonates visually with the technologies of the bridge, the skyline, and most notably the car. These objects stand in contrast to the "natural"—the green trees and grass, and Reinertsen's mostly exposed, fleshy body. The ad emphasizes the distinctions and connections between technology and nature. Lincoln implies this juxtaposition itself with the description it provides of the MXZ: "So agile, so responsive, it can take on any challenge." Though presumably "it" refers to the MXZ, in this ad, the car is not actually asked to perform anything challenging; this description, then, constructs a parallel relationship between the car and Reinertsen's prosthetic leg. It is *that*—the prosthetic, and, by association, Reinertsen's prosthetized body—that is agile and responsive, demonstrated most clearly in the commercial. There, with only a slight hesitation, we see Reinertsen run smoothly in a pack of other strong (and able) athletes. Implicitly implicated, then, is Reinertsen herself—she (body and prosthetic *in toto*) too, with mechanical, trained precision, is agile and responsive, taking on the challenge of the race and, perhaps even more so, the prosthetic. Here, she is technologized.

These extended close readings of Mills and Reinertsen offer fertile ground for further analysis. The examples work a bit differently, in part due to the media employed: Mills's story plays out in a specific role, over a period of several months, requiring a both broader and more vague summation, while Reinertsen's representations are quite finite, extremely limited representations of her actual identity.[5] There are enough similarities between the women, and similarities between their bodies and their stories, however, to allow for a meaningful analysis. What we are presented with are two attractive, physically fit women with prosthetic legs "performing" in the public eye. We also can recognize three interrelated operations in play—stories of overcoming disability; the potential shaping of docile, mechanized bodies; and rhetorics of replacement. All depend on the achievement of a norm by the figures presented, who "fix" their bodies to attain this standard, though the extent to which and means by which this is accomplished in each case differs.

Reading the body

Against all odds

The images of Mills and Reinertsen, though positive in many ways, suggest a problematic conception of disability and prosthesis, one that eventually translates to a greater anxiety about a mechanized nonhuman figure. Disability studies identifies this problematic conception as the image of the "supercrip." Joseph Shapiro writes,

> The stereotypes of Tiny Tim or supercrip have slowed the progress of disabled people toward full inclusion in American life. To be seen as a patient or in need of charity is to be thought incapable of the same life as others. To be lauded for superachievement is to suggest that a disabled person can turn pity into respect only at the point of having accomplished some extraordinary feat. (Shapiro 1994, 60)

Clearly, Mills's and Reinertsen's representations demonstrate "superachievement"; indeed, one might be hard-pressed not to respect their accomplishments of "extraordinary feat(s)," performed with or without prosthetic legs.[6] Interestingly, their participation, respectively, in a popular television show and major advertising campaign suggests a "full inclusion in American life," or at least something closer to that than we have seen in the past. And what is wrong with this? Individually, nothing—these women are accomplished and deserving of recognition. Positive images of women with prosthetics in popular culture

increase representations of difference, which, in turn (one hopes), increases acceptance of said "differences" (an argument employed in issues of gender and cultural representation). Such representations achieve a kind of inclusion fought for by communities of disabled activists. However, as a cultural model, the seeming preference for only representing certain kinds of people with prosthetics (i.e., those who fit the "supercrip" narrative) also represents a potentially problematic normalizing.

The image of the supercrip is, in part, an image of a disabled body turned "normal," that is, a normalization of a body no longer restricted or limited by its very condition. It is, in Foucault's terms, a docile body. Foucault claims, "A body is docile that may be subjected, used, transformed and improved" (Foucault 1995, 136). The goal of a docile, disciplined body is an economy of control:

> To construct a machine whose effect will be maximized by the concerted articulation of the elementary parts of which it is composed. Discipline is no longer simply an art of distributing bodies . . . but of composing forces in order to obtain an efficient machine. . . . The body is constituted as part of a multi-segmentary machine. (Ibid., 164)

This discipline is enacted through both external (physical) and internal (mental, emotional, and so on) exercises of minutia, particularly for the soldier (though also the student, the worker, the hospital patient, and so on). Each individual must internalize this goal of control and discipline by comparing bodies, behaviors, and functions to one another and to minimum thresholds, and by shaping and establishing (un)acceptable frames of difference, in order to achieve the transformations and improvements of docility. Disciplinary power, then, is created within relationships and interactions; it is power that produces instead of suppresses. It is within this "transformed and improved" that normalcy emerges.

For Foucault, normalizing comes to function throughout disciplines—education, industrialism, and, most important here, medicine. A disabled body, by definition, would be medically (and thus also socially) *not* a functional, "normal" body. Foucault explains that "degrees of normality indicate membership of a homogenous social body but also play a part in classification, hierarchization and the distribution of rank" (ibid., 184). If a body is marked as outside the "homogenous social body," it is subject to hierarchization, to low rank, to less power, and to more discrimination. Notable as well, this ideal of "normal" is inherently unreachable; the ideal disciplined body is a myth that serves to reinforce the internalized correction; one is then never already normal, but always

attempting to move closer to the goal. A supercrip, then, is a disabled body that has been made docile, that has seemingly achieved "the constraint of conformity" and superceded its low ranking to appear normal and acceptable (ibid., 183). Only then, according to Shapiro, is the disabled body seen as worthy of respect by other normal bodies (Shapiro 1994). It is no longer a misbehaving body, or, in Garland Thomson's words, the "embodiment of corporeal insufficiency and deviance" (Thomson 1997, 6).

The problem that underpins the story of the supercrip quickly comes into focus. Though positive in some respects, this story reifies a particular conception of the normal body, creating an expectation that all disabled bodies should (and by assumption, *can*) achieve. The story of the supercrip limits what is seen as acceptable, and thus, as Shapiro notes, limits the "progress of disabled people toward full inclusion in American life" (Shapiro 1994, 60). A person with a disability, then, may only be included in society if that person overcomes her or his disability, disciplines/controls her or his body, conforms to expectations of "normal," abled bodies, and does not need (or, even worse, *demand*) any accommodations for her or his "differences." This is the product of disciplinary power—individually, internally created docile bodies. Acceptance on these terms is problematic on countless fronts. It posits that an abled body *is* the norm (or even an achievable condition) for all bodies, and that this is what all members of society do (and *ought* to) prefer. Privileging an ideology of independence and self-reliance, this acceptance discounts issues such as access to care and resources (medical, financial, and other); these issues are particularly vital in regards to prosthetics, and especially high-tech prosthetics. One might argue that, for an athlete with an amputated leg, Reinertsen's running prosthetic merely allows a therapeutic level of function. However, for the average person with an amputated leg, such a prosthetic might be considered an unnecessary enhancement. If the accomplishments of Mills and Reinertsen come to be the standard or "norm" of achievement for people with prosthetics, the average amputee is then, at a very basic level of access to technology, unlikely ever even to approach this norm. Here, then, the problematically normalizing cultural model of the supercrip narrative is revealed.

In the case of Mills and Reinertsen, however, the narrative of the supercrip, while reifying their seemingly (now) able-bodied normalcy, also serves to reinforce the recognition of the prosthetic, calling attention to their achievements of "normal" despite their lack of physical "normalcy." We thus get a double effect here—we see strong, healthy women who are extremely capable, going beyond

expectations, demonstrating that they are just like everyone else (sort of); yet we are also reminded that the reason for this attention is precisely their amputation/prosthetic, that which inherently defines them as different, as other, as outside of normal. They, and others, note their tremendous bravery and achievement again because/in spite of their disability.

The very use of prosthetics themselves creates another layer of complication. David Mitchell and Sharon Snyder consider this in *Narrative Prosthesis*, reflecting Foucault's ideas of normalization:

> To prostheticize, in this sense, is to institute a notion of the body within a regime of tolerable deviance. If disability falls too far from an acceptable norm, a prosthetic intervention seeks to accomplish an erasure of difference all together; yet, failing that, as is always the case with prosthesis, the minimal goal is to return one to an acceptable degree of difference. (Mitchell and Snyder 2000, 6–7)

The very act of prosthetizing the body can here be seen as yet another attempt at normalizing. Again, functionally speaking, Mills's and Reinertsen's prosthetic legs do seem to work in this way: prosthetic intervention indeed assists them with the ability to physically achieve their goals, and, in fact, to surpass standard achievements for disabled and abled bodies. Additionally, Mills's prosthesis can be seen as quite literally working to erase difference, as it visually mirrors her biological leg, down to a foot encased in a high-heeled shoe. However, before proceeding with Mitchell and Snyder's claims, two points must be noted. First, Mitchell and Snyder are not suggesting that people with amputations should not have prosthetics; rather, they are questioning the metaphorical work of prosthetics. Their book queries the cultural effects of prosthetic representations in literature. Thus, their analytical perspective is clearly relevant to this analysis of figures in popular culture, though I am extrapolating from their claims, moving back from literary metaphor to the underlying basis of that metaphor. Second, their critique does not entirely hold for these women. Prosthetic invisibility is not achieved, nor does it seem to be the goal. These women are not attempting to "pass" as nondisabled—Reinertsen's prosthetic leg is quite obviously prosthetic, and in no aesthetic way resembles a biological leg; furthermore, even though Mills's prosthetic visually matches her biological leg, Mills discusses her prosthetic leg regularly, even displaying it separately (i.e., not attached to her body) on occasion.[7]

In light of the "supercrip" model, then, these women all appear as complicated representations. Though positive in many ways, the construction of Mills and Reinertsen (in which they are both notably complicit, willing media par-

ticipants) could be read as problematic idealizing. However, their relationships with their prosthetics suggest something else—namely, a comfort with a malleable body, one subject to change and alteration. These women do not exist "only to disappear" into a category of "normal" bodies, at least in the frame of dis/ability (Foucault 1995, 182). But the changes and alterations of bodies can still be read through other disciplinary frames.

Now I'm in control

This interpretation and application of the docile body does not only occur in disability studies; feminist analyses, as well, have long noted the problematic production of docility in women's bodies. Susan Bordo offers a vivid explanation of how this operates:

> Through the pursuit of an ever-changing, homogenizing, elusive ideal of femininity—a pursuit without a terminus, requiring that women constantly attend to minute and often whimsical changes in fashion—female bodies become docile bodies—bodies whose forces and energies are habituated to external regulation, subjection, transformation, "improvement." Through the exacting and normalizing disciplines of diet, makeup, and dress—central organizing principles of time and space in the day of many women—we are rendered less socially oriented and more centripetally focused on self-modification. (Bordo 2003, 166)

Here, the norm established is not the abled body, but the "elusive ideal of femininity"; it is established, as is the norm of "abled-ness," through internalization of countless social and cultural factors, and notably the representation of women in media. Traditionally, this norm has been achieved through practices of superficial changes—including clothing and cosmetics—and more substantive changes to the physical body—such as diet and exercise. Of course, more dramatic means of bodily alteration—through cosmetic surgeries and procedures—are not only possible, but today, quite common. Thus, the female body can be made docile not only through individual practices, but through medical and technological interventions.

A feminist analysis of the physiques of Mills and Reinertsen, then, suggests that they are again already significantly subjected by discipline. These women, models and athletes, are lithe and toned, exemplifying the current "elusive ideal" of the female form. Clothing clings to their torsos (midriffs often exposed), bare limbs extend from tank tops, short skirts, and shorts, and little is left to the imagination. Their bodies are tight, controlled, and trained for performance in

multiple registers. In other words, they are already, prior to any prosthetic discussion, embodiments of docility.

This pervasive representation of idealized women's bodies evokes anxieties similar to those of the "supercrip" and the conceptions of enhancement identified in Pistorius's case, though the issues here are primarily about aesthetics as opposed to functionality. Again, the process of disciplining the body to achieve this female ideal constructs a new norm, a changed (and often unrealistic) expectation for what female bodies ought to be, how they ought to appear. Bordo identifies the particular dangers for women of achieving such docility, noting that, "at the farthest extremes, the practices of femininity may lead us to utter demoralization, debilitation, and death" (ibid., 166). While she is concerned particularly with the effects of extreme exercise and eating disorders, this certainly extends to concerns about (excessive) cosmetic surgery and aesthetic enhancements. Balsamo recognizes the potential for the practice of cosmetic surgery to act as a form of oppression, affirming that, "for some women, and for some feminist scholars, cosmetic surgery illustrates a technological colonization of women's bodies" (Balsamo 1996, 78). Thus, once again, Mills and Reinertsen can be seen as representations of problematic idealization of the female form. But, also once again, that reading is potentially too simple. Balsamo articulates another perspective:

> I am reluctant to accept as a simple and obvious conclusion that cosmetic surgery is simply one more site where women are passively victimized. . . . It is clear to me that cosmetic surgery is a practice whereby women consciously act to make their bodies mean something to themselves and to others. (Ibid., 78)

The anxieties about such disciplining of women's bodies are certainly legitimate; additionally, though, reactions against interventions often emerge from privileging a "natural" body, free from technologies and/or technological alterations. This anxiety dissipates when surgery is considered reconstructive instead of cosmetic—or therapeutic instead of enhancing. However, a preference for the therapeutic also privileges the restoration of what is seen as "natural," as opposed to the creation of the new norm of an unrealistic ideal. In the quotation above, Balsamo suggests what I earlier argued in terms of Mills's and Reinertsen's relationships with their prosthetics: the idea that women might be comfortable with a malleable body, and that this malleability might be powerful and positive. Ironically, the idea of accepting the malleability of bodies also underlies the feminist critiques of docile bodies. Women's bodies are often in flux, particularly when moving through hormonal cycles and reproduction; such changes, in

combination with the preferred "natural" variety of women's physical appearances, are the antithesis of the docile body. Cosmetic surgery, then, could be read as an active, conscious practice, undertaken by women choosing to alter their bodies. Of course, the concern is that this malleability, instead of increasing variation and individuality, will instead reinforce negative homogeny, that it will make us un-natural, less human, and more docile machines. I will return to complicate this construction of "natural" versus technological (and therapeutic versus enhancement), but first, I want to explore the role that language plays in the readings of these prosthetized bodies.

Discipline and rhetorics

What of the prosthetized body? Perhaps the ultimate demonstration of disciplined bodily control, the ultimate means of composing the body into an efficient, multisegmentary machine, would be to literally transform flesh *into* machine, to replace potentially misbehaving natural parts with more easily controlled technologies—that is, prosthetics. Clearly, as addressed above, anxieties about prosthetic replacements for issues of aesthetics and ability extend through feminist and disability studies critiques. Anxieties about such replacements are also often expressed in athletics, with the suggestion that, if prosthetics were effective and powerful enough, people would choose to remove adequately working body parts and replace them with prosthetics. The concerns about Pistorius's potential Olympic performance again resonate here: no one argued that Pistorius ought not to have prosthetics, but that his specific prosthetics, in the realm of competition against "natural" bodies, constituted an advantage. If his "Cheetah" legs in fact enhanced his running, using them in competition would not be fair to athletes who had to make do with their original, fleshly legs. Furthermore, Pistorius's presumed prosthetic advantage might encourage other athletes to "trade in" their merely average legs for new, high-tech models. These anxieties require significant unpacking, beginning with understanding the underlying perception of the relationship between body and prosthesis.

Let us begin to do so by returning to Foucault's articulation of the process of discipline in the soldier's training:

> Discipline defines each of the relations that the body must have with the object that it manipulates. . . . The instrumental coding of the body . . . consists of a breakdown of the total gesture into two parallel series: that of the parts of the body to be used . . . and that of the parts of the object manipulated . . . ; then the two sets of parts are correlated together according to a number of

> simple gestures . . . ; lastly, it fixes the canonical succession in which each of these correlations occupies a particular place. . . . Over the whole surface of contact between the body and the object it handles, power is introduced, fastening them to one another. It constitutes a body-weapon, body-tool, body-machine complex. (Foucault 1995, 153)

Thus the soldier's weapon becomes an extension of his self, creating a complex between tool and flesh. The steps are direct, the actions specific and simple, and the process ends with "fastening." This suggests a clean, precise, mathematical interaction, where power applied to the addition of body and object constructs the entity body-machine, suggesting the following equation:

> power (body + object) = body-machine complex

The equation is enacted through reinforcement; the practice of the simple gestures results in the new complex, grammatically represented with a dash linking the two words/parts into one. The dash in the word(s) serves to create a linked modifier of the two terms: two separate words fastened together, yet still distinct, rather than a compound word (bodymachine), or a mash-up (bodchine).

This grammatical equation suggests, then, the discourse of science and technology—language that is clear and precise, nearly mathematical, and seemingly lacking in artifice or rhetoric. Of course, as rhetoricians of science helped to reveal, this discourse is most certainly rhetorical and not at all devoid of artifice.[8] As Charles Bazerman notes, "the accomplishment of scientific discourse is that it appears to hide itself" (Bazerman 1988, 14). These revelations notwithstanding, scientific discourse continues to influence our perception of technologies and bodies.

Entwined with this discourse is the use of a common metaphor for the body, demonstrated here and throughout history: that of the body as machine—including a heart that pumps, neurons that fire, and brains that compute.[9] Norbert Wiener employs this metaphor in his contemplations of cybernetics and human/computer communication, claiming, "In a certain sense, all communication systems terminate in machines, but the ordinary language systems terminate in the special sort of machine known as a human being" (Wiener 1954, 79).[10] Charles M. Anderson also emphasizes the relationship between language and medicine and the influence of this mechanistic metaphor, tracing it back to Descartes and forward through the mid-twentieth century. He marks this later point as the time at which "the machine and the experimental science metaphors had become so much a part of the language of medical practice and

training that they were no longer useful but optional ways of understanding the profession. They had become the only ways" (Anderson 1989, 8). The metaphor as metaphor disappears, leaving behind the perception that the body *is* mechanistic; or, in Colin Murray Turbayne's terms, the metaphor as sort-crossing has become sort-trespassing, and instead of using the metaphor, we are used *by* the metaphor (Turbayne 2005). Kenneth Burke offers another means of understanding the relationship between language and our "realities," with the idea of the terministic screen (Burke 1966). He posits that the language or terms we use construct a particular lens or screen through which we discuss, understand, and construct the world. He addresses the function of choosing terms as reflection, selection, and deflection; no matter how closely we might feel a term reflects reality, by limiting reality to a specific term, we automatically reject other potential terms, thus limiting the extent to which can know that reality (and deflecting other ways of knowing). Burke writes, "much that we take as observations about 'reality' may be but the spinning out of possibilities implicit in our particular choice of terms" (ibid., 45). Terministic screens, then, function like systems of gates or doors, where going through one (by choosing specific terminology) limits the next choice, and the next, and so on, with agents funneled through by deliberate choice or simply by flow.

These rhetorical frames, or terministic screens, then, shape, or, as I will argue shortly, *mis*shape, our perception of the relationships between bodies and prosthetics. The body/machine metaphor constructs the prosthetized body as one where the body/machine can be disassembled and reassembled quite simply: machine (prosthesis) is simply attached to machine (body). Insert tab A into slot B, fasten, and the process is complete.[11] This underlying perception of the relationship between body and prosthesis promulgates anxieties of the simple replacement of flesh for machine.

Words are not the only tools of construction here; visual rhetorics also strongly influence this reading of two female prosthetized bodies. As I have pointed out, we can already see the women's bodies as controlled and conditioned; with an amputation of a leg, furthermore, we also see (or imagine) a clean border of the end of the body. Or rather, if we see the leg without the complete prosthetic, we generally see a covered and contained end of the residual limb. We do not see reformed flesh, nor scars—we see the rounded, clean border of a prosthetic liner, or perhaps the metal peg that extends from a wrapped residual limb. This, then, is visual reinforcement of the suggestion that a prosthetic could quite simply be attached (after flesh is simply removed). Visual and textual resonances are also at

work in Reinertsen's ad, calling explicitly on this conflation of bodies and machines through both the visual juxtapositions and the tagline: "So agile, so responsive, it can take on any challenge." Again, the undefined pronoun *it* seems to reference Reinertsen's body and prosthetic at least as much as the car itself, pulling again on the underlying body/machine metaphor. The aforementioned YouTube mash-up of Mills's performance also demonstrates and reinforces the cultural view of "pop-able" prosthetics that quite easily attach (or, as in the video, detach).

But this interpretation of the body-machine complex is only one part of the equation; we have not yet considered the greater implications of Foucault's analysis—the purpose of the disciplined body. In this regard, the more insidious nature of docility comes into play: a docile body (such as the body of a student or a soldier) is created for subjugation and use. Disciplinary power produces a body that behaves, that internalizes the discipline; it produces a body useful as part of a group. This production is not a process of individuation, but rather of normalization, as the feminist and supercrip critiques demonstrate. There, the concern is that one particular representation of a group (people with disabilities, women) becomes the norm to which all others comply. Implications of this, then, include enforced ableism and manifestations of eating disorders.[12] In this paper, I am concerned to point out that altered, prosthetized bodies become a new norm, one with which no "natural" body could possibly compete. Of course, these concerns are not unfounded; while I am not advocating that all people ought to become prosthetized, I am arguing, following Georges Canguilhem's definition of norms, that the boundaries of "normal" need expanding.[13] My other concern lies with the question of domination—how these docile bodies could be used. Here, then, we could consider the representation of the prosthetized supersoldier often found in science fiction (and not far off in our prosthetic future), the extended embodiment of Foucault's soldiers. Though one might worry whether Pistorius's prosthetic is fair, his running leg is a far cry from a weapon. Acceptance of these enhancements, however, could then be read as steps on a slippery slope to bodies ultimately entirely mechanized and prepared for nefarious use.

Unbounded boundaries

> *To the extent that living beings diverge from the specific type, are they abnormal in that they endanger the specific form or are they inventors on the road to new forms?* (Canguilhem 1991, 141)

Where does this leave us? We can see how the presumptive reading of prosthetic bodies as docile bodies grounds these prosthetic anxieties, and su-

perficially, this reading has some weight. But by returning to Mills and Reinertsen and pushing even slightly on this claim, the structure of this reading begins to fold. The concept of docility through discipline or mechanization rings false through the experience of prosthetized bodies. For Mills and Reinertsen, the idea of becoming the ultimate normalized body simply does not pay. Though they (and others) may make claims for their normalcy, these claims are undercut by the *necessity* to claim this, as well as by these women's willingness to display the prosthetic itself. Again, theirs is not a process of passing, but rather of showing, displaying, and demonstrating these differently constructed bodies. Mills and, most particularly, Reinertsen are breaking molds, both visually and physically, far more than they are conforming to them.

In addition, we can question the very concept of mechanization of the body. As shown, this concept plays on a notion of an easily replaceable body, and yet, despite potential analogies, a prosthetic leg operates quite differently from the soldier's weapon. The weapon as a prosthetic adds function to the soldier. The soldier's body is trained to incorporate the object; his body learns his weapon as an extension of his self. At the end of the day, the soldier puts down the object, presumably continuing to function "normally." The prosthetic of an amputee, by contrast, encapsulates a different experience. Her prosthetic adds more fundamental function, in some ways quite literally "completing" her body, permitting "normal" physical function that might otherwise be quite challenging. This most certainly does not happen with the ease of picking up an object. We cannot replace body parts as simply as a carburetor, removing one and snapping another in without much difficulty. Simply fitting and aligning a prosthetic, not to mention running marathons and dancing with one, can be painful and onerous. Thus, we must turn from representation to experience; narratives of prosthetic undertakings reveal aspects of these experiential complexities of prosthetization inaccessible through media analysis.

Vivian Sobchack considers the "metaphor and materiality" of prosthetics through a discussion of her own prosthetic experience. Due to a recurrent cancer, her left leg was amputated above the knee, after which she received "strenuous preliminary rehabilitation" (Sobchack 2006, 29). In her following remarks, she relates her experience of receiving her first prosthetic leg about six months after the amputation:

> Finally . . . my body was ready to go through the arduous plaster casting, fiberglass molding, and microfitting of a prosthetic leg so that I could begin to learn to walk again—a fairly lengthy and complex process that imbricated

> both intensive mechanical adjustment and physical practice. (Sobchack 2006, 29)

While Sobchack continues in detail, this passage gives an initial indication of the many-step process, which she describes with adjectives such as "strenuous," "arduous," "lengthy and complex," and "intensive." The repeated use of these terms by Sobchack undercuts the seemingly simple nature of the processes involved in "becoming an amputee," as suggested by the limited representations of Mills and Reinertsen.[14]

Steve Kurzman takes a slightly different approach, highlighting the incommunicability of finding a good fit for his prosthetic leg, while theorizing the process of communication between himself and Kevin, his prosthetist, in an essay aptly named "'There's No Language for This.'" Kurzman writes:

> The subjective experience of using prosthesis disrupts language. This is especially true of new amputees, for whom an amputation is still a great shock to the body. Stumps are perplexing and delicate new body parts, and phantom limbs are somewhat disconcerting, and often painful at first. Compounding this problem, wearing prosthesis is initially very uncomfortable. Part of your body, which was not evolutionarily designed to bear weight, is suddenly bearing your weight in motion, while your stump is encased in cloth socks and plastic. It is all so supremely alien that it is extremely difficult to describe the sensation at all, much less respond to the question as to whether it "feels right." (Kurzman 2002, 232)

Here, Kurzman thoroughly undoes the effects of the scientific rhetorics that I suggested can be drawn from Foucault's description of the soldier's training, expressing the inexpressibility of experience and detailing ways in which the body is not inherently built for this alteration. While testing a new prosthetic, Kurzman relays his thoughts: "my attention focused on my legs and the effort of thinking about what it feels like to walk and how to articulate this feeling, while Kevin alternately observed my face, legs, and body language" (ibid., 228). Kurzman demonstrates that, unlike the steps required of the soldier, this is not merely a process of strapping up and running out the door, nor one of simply disciplining the body to work the machine. Instead, it is intuitive, reflective, and reflexive. The communications between prosthetist and patient require words, with which Kurzman struggles, but also demand other readings of the body through expression, gait, and posture. Fit cannot be achieved solely through training, repetition, and practice, but must include trial and error; this process rejects the mathematicization suggested with the soldier in the "body-machine complex."

These two examples reveal not docile bodies but bodies that are quite undisciplined, bodies in process, bodies reconstituting in relation to themselves and to technologies. Kurzman describes this reconstitution as a process of reshaping the prosthetic through a series of adjustments, trying again each time until "that moment when the prosthesis just felt right and I stopped thinking about walking because it no longer felt remarkable" (ibid., 229). After much work and practice and manipulation, bodies and prostheses can reach a means of working wherein movement appears seamless, where the prosthetic disappears. However, despite the images presented in recent media, the interstices between bodies and prostheses are not seamless, or so cleanly seamed.

To understand these interstices, then, I suggest a turn to a phenomenological approach, specifically through Maurice Merleau-Ponty's ideas of the intervolvements of body-world. Merleau-Ponty's example of using a stick instead of vision to find one's way around explicates the relationship between objects and perception in the body:

> Once the stick has become a familiar instrument, the world of feelable things recedes and now begins, not at the outer skin of the hand, but at the end of the stick. . . . The pressures on the hand and the stick are no longer given; the stick is no longer an object perceived by the blind man, but an instrument *with* which he perceives. It is a bodily auxiliary, an extension of the bodily synthesis. (Merleau-Ponty 2002, 175–76)

Here, the arm–hand–stick–world continuum actively demonstrates intervolvement. The stick, a tool external to the body, is here wound through the body-world. It is a pseudo-prosthetic for sight, not precisely replacing the function of eyes, but actively extending the body's perception through space, creating sensation, communication through body and world. We see this alteration in body-world perception and intervolvement as well through Merleau-Ponty's example of the dung beetle (Merleau-Ponty 1983). After amputation of its phalanges, the beetle can immediately continue walking, though now "the movements of the stump . . . and those of the whole body . . . represent a new mode of locomotion, a solution of the unexpected problem posed by amputation" (ibid., 39). The beetle establishes a new "functional equilibrium" that adapts to changing surfaces, utilizing the stump(s) as needed, or not. The beetle's amputated phalanges establish a bodily synthesis not with an auxiliary (like the stick), but directly with the ground. While not reducing the human experience of amputation to that of an insect, through this example we can further see the potentialities of intervolvement.

It is a small step, then, to extend these intervolvements through the experience of medical prosthetics used after an amputation. Let us return to Kurzman, to "that moment when the prosthesis just felt right and [he] stopped thinking about walking because it no longer felt remarkable" (Kurzman 2002, 229). Prior to this point, he struggles with sensations of the new leg not fitting properly, with feelings of pain and discomfort, feelings difficult to describe with words, but which are communicated with his body. Kurzman relates how the prosthetist keenly observes the process, generally knowing before Kurzman even speaks that the prosthetic is simply "not right"—Kurzman's facial expressions, as well as his way of walking and holding himself, reveal these sensations. But once the adjustments are right, once Kurzman becomes comfortable, his gait and expression change; he ceases to struggle with this new, other leg because, practically speaking, it ceases to be other. He stops perceiving distinct boundaries between his body and the world; his prosthetic acts similar to but more extensively than Merleau-Ponty's stick, embodying the "practical field" left by amputation.

Merleau-Ponty's phenomenological conception of body-world thus provides grounds for understanding how our bodies (can) operate with technology. A prosthetic, then, from a stick to a bioengineering marvel, at its greatest potential, becomes an extension of our own body, a participant in/through the body-world continuum. The couplings of flesh and prostheses are not merely acts of linking inert, mechanistic parts. Such presumptions, as I addressed above, are affected by scientific rhetorics: "A" (prosthesis) is not cleanly added to "B" (body) to create prosthesis + body. This claim demands not only absolute boundaries of flesh and technology, but also inactive stabilities of both sides of the equation; mathematical and mechanistic metaphors fail when considering these prosthetic experiences. Prosthetics, then, are also not simply external interventions used to "fix" the body to an arbitrary norm determined by a fleshly standard—technological agents of control that act on and discipline flesh. That frame gives agency to the technology, which then remakes malleable, misbehaving bodies (or, inverting the previous example, active, unstable flesh) into mechanistic, docile bodies. Instead, prosthetics are particularly complex intervolvements of the body with the world. They actively engage with bodies, operating, as Merleau-Ponty's stick and Kurzman's experiences demonstrate, as extensions of perceptual fields. This intervolvement is not a simple exchange or replacement; even though Kurzman's narrative concludes with the right fit, that is not the end of his story. In that episode, in those moments, the continuum shifted to a full intervolvement, with his body and prosthesis working seamlessly and

effortlessly. But change the terrain, the condition of the residual limb, the status of another body part that might affect gait, and the continuum shifts again. Active engagement means constant renegotiations of situated body-worlds. Like Merleau-Ponty's dung beetle, we adapt situationally, adding, altering, removing, and utilizing prosthetics and bodies/flesh as needed.

With this, the conception of a "natural" body, existing in opposition to environment, technology, non-self, becomes perceptually slippery. Prosthetics destabilize these boundaries, standing as demonstrations of Merleau-Ponty's claims; biomechanically advanced prosthetics in particular, such as the myoelectric arm, explode these seeming boundaries of "natural" and technological even further. In these technologies, the presumption of bodily boundaries dispelled by Merleau-Ponty's phenomenological musings become quite literally breached—wires and sensors extend through flesh; human and machine communicate with electrical signals indistinguishable from each other; and boundaries become even more negligible. If we come to see the body as situated within the body-world continuum, the norms for the relationships of bodies and technologies have room to expand. There is no ("natural") body separable from ("technological") world, but only shifting continuums of intervolvement. The presumed norm of the "natural" body is built on false premises of absolute boundaries.

But if anything can be prosthetic in this way, we risk a level of generalization that becomes as critically problematic as the "natural" body, where everything and every being is just "technology" without differentiation. This is not what Merleau-Ponty is getting at, nor what I am advocating by destabilizing "natural." To address this problem, we might turn to John Haugeland's concept of intimacy in considering mind–body–world systems. He works with an example of an ant walking on the beach, suggesting when, how, and to what extent to consider these two things—the ant and the beach—together. If we are interested in the biological system of the ant, then the beach is of little concern. However, if we want to understand the ant's path, and if, he writes:

> there is constant close coupling between the ant and the details of the beach surface, and if this coupling is crucial in determining the actual path, then, for the purposes of understanding that path, the ant and beach must be regarded more as an integrated unit than as a pair of distinct components. (Haugeland 2000, 217)

The "integrated unit" and "close coupling" can also be read as intervolvements, active engagements similar to those of Merleau-Ponty's dung beetle. For Haugeland,

understanding the relationships between body and world must happen with specific foci, not in absolutes. He notes that determining "*which* close interactions matter, when considering the scope and structure of systems, depends fundamentally on what we're interested in" (ibid., 216–17). This allows us, then, to consider norms of bodies and prostheses outside a vacuum, outside the Foucauldian normativity positing the "normal/natural" body (i.e., that which is constructed to be naturally correct). Here, then, we have prosthetized bodies attempting to achieve a sense of "normal," not in terms of docility, but rather in the terms suggested by Canguilhem. Canguilhem emphasizes the role of context, arguing that, "Taken separately, the living being and his environment are not normal: it is their relationship that makes them such" (Canguilhem 1991, 143). Determining what is normal happens through considering how particular traits or characteristics of beings operate in relation to their world; what is pathological in one context, in evolutionary terms of "stability, fecundity, variability of life," can be normal or superior in another (ibid., 144). Two important concepts emerge from this analysis: (1) norms as a process of identification; and (2) norms as malleable.

Sobchack articulates a desire for this kind of situational "normality" in response to watching a video of amputees racing in the Special Olympics:

> As I sat there, I watched the people around me—and knew that all they wanted, as I did was to be able to walk at work, to the store, and maybe on a treadmill at the gym. . . . All I want is a leg to stand on, a limb I can go out on—so I can get about my world with a minimum of prosthetic thought. (Sobchack 2006, 38)

Sobchack does not want to win races, to dance in competitions, or to save the world; she wants simply to live and work and move with relative ease. We can infer that Kurzman is looking for a similar experience. I maintain, then, that norms are not in themselves problematic judgments, but rather are often useful means of measurement and comparison. This seems to be the construal of "normal" suggested by Sobchack, embodying Canguilhem's claim that, "In the final analysis it is the patients who most often decide—and from very different points of view—whether they are no longer normal or whether they have returned to normality" (Canguilhem 1991, 119). Thus, referencing the epigraph to this section, Sobchack and Kurzman may be Canguilhemian inventors. This, then, together with the theories of Merleau-Ponty and Haugeland, offers a constellation for determining malleably normative bodies: we must consider the active engagement of prosthetics and bodies within continuums of body-world intervolvement and in the context of specific interests and environments.

My (re)replaceable you

In this paper, I have examined two rather similar representations of prosthetized bodies in Mills and Reinertsen. Though limited examples (they are both public figures, both high achievers, both with similar prosthetics), their representations offer strong ground from which to extrapolate how we read prosthetized bodies, what complex anxieties we feel about these bodies, and how we understand the relationships between bodies and technologies. While one societal anxiety about prosthetized bodies concerns issues with respect to "fairness," others concern issues of mechanization, anxieties over humans becoming machines, with all requisite implications—issues of ethics, control, and the very concept of "human." We see this mechanization anxiety play out in science fiction quite regularly—robots and cyborgs surpass and overtake humans, making us obsolete or subjugating us as slaves.[15] It is not a far leap to see the prosthetized body as one potentially mechanized in a similar manner. However, this leap is precisely that—a move that jumps over the experience of prosthetization. Yes, we can employ Foucault's remarks to read the prosthetized, constructed, constructing body, but this does not inherently create docility in Foucault's sense. Though the mediated representations of Mills and Reinertsen might initially suggest this, a deeper consideration reveals the complicated experience of prosthetics. These are not merely bodies of control. Though trained and capable, they are not disciplined or mechanized for use like the soldier or the car. Instead, they are bodies adapted, altered for their circumstance, for their individual need. They are not only bodies of domination, but of potentiality. They are even bodies that *challenge* the docile body, that *explode* definitions of "normal," that *reinscribe* ideas of norms. What we don't see in the representations of Mills and Reinertsen, but see to limited extents in the narratives of Sobchack and Kurzman, is the messiness, the true interactivity, the liminal space of reconceiving the relationships of lived bodies and technologies. And this is what we need to understand. By developing a new epistemology from which to read bodies and technologies, one that reflects liminality and interactivity, one that integrates a corporeally based, phenomenological epistemology, we can create new ground for a bioethics of replacement and bodily alteration.

Notes

1. Paralympic.org offers an excellent history of the "Paralympic Games" page. They note that Sir Ludwig Guttmann organized events for World War II veterans with spinal cord injuries. Additionally, the games weren't called Paralympics until 1976; the 1960 games are considered Paralympics only in retrospect.

2. Reinertsen also competed in the TV show *The Amazing Race* in 2006, which introduced her to a large audience. As Mills's story offers one representation in reality TV, I will only focus on Reinertsen in the Lincoln campaign.

3. These quotations are from various episodes of the show; I retrieved them from YouTube videos that were not dated. See, for example, "Heather Mills & Jonathan—Waltz," posted by Famousgrl2 on 10 April 2007 (http://www.youtube.com/watch?v=sEIeDFV8qCk& feature=related).

4. While Reinertsen may have been recognizable to some viewers from her appearance on *The Amazing Race*, she is not necessarily a household name.

5. I have only addressed a few specific instances here, but every *DWTS* performance by Mills continues to reinforce the conception spelled out previously.

6. Even if Mills's is more commercialized, that level of dancing is quite challenging (demonstrated regularly through *DWTS*).

7. One instance in which Mills displayed her prosthetic occurred during her appearance on *Larry King Live* on 20 March 2007; images from the show can be seen on espn.com: http://espn.go.com/page2/s/thinking/021104/king.html.

8. See significant analyses of scientific rhetoric in works by Gross (1996), Latour (1988), and Latour and Woolgar (1986).

9. For additional discussions of the impact of metaphor in the creation of meaning, see Fahnestock (2003), and Ortony's and Kuhn's essays in Ortony's *Metaphor and Thought* (1993).

10. It must be said that Wiener's use of this metaphor is not quite this simple. First, he extensively explicates the analogous relationship between humans (and particular organs) and machines, carefully considering how and where the analogies best apply. Second, as much as he examines the human as machine, he is also interested in the machine as human, an inversion of the metaphor. For example, on p. 57, while still using the term "mechanical," he is acutely aware of the complexity of human physiology, suggesting at the least a highly complicated machine that as of yet has no mechanical equal. On pp. 65–66, he recognizes "just criticism" from physiologists and psychologists who "prefer not to make use of the machine comparison."

11. For Foucault, the weapon *is* a prosthetic, a completion of the soldier's body/purpose, much as the prosthetic leg "completes" Mills's and Reinertsen's bodies.

12. This truncates Bordo's argument of the expression through women's bodies of social expectations of women (e.g., women who develop agoraphobia upon marriage).

13. In Canguilhem's analysis, norms are malleable; I'll address this further in the next section.

14. Of course, Mills and Reinertsen may have (had) very similar experiences with their prostheses; we just are not made privy to this in the context of their TV appearance and ad campaign.

15. *Robocop*, *I, Robot*, and *The Matrix* are only a very few examples of movies that represent this.

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