Engenderneered Machines in Science Fiction Film

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The fear that human creations might backfire and attack their creators has been a mainstay of science fiction at least since Mary Shelley’s Frankenstein. The misgivings become particularly acute when human-engineered imitations of human beings (i.e., robots and cyborgs) raise questions regarding how humans can be distinguished from machines. Assumptions about gender also infuse the ways humans conceive and react to their mechanical progeny (i.e., robots and cyborgs). Whenever human-like creations are embodied, they encounter the fundamental bodily quality of sexuality. The cinematic exploration "fleshes out" how posthuman technological innovations are engendered in their engineering. By problematizing the roles that gender can play in the very conceptions of what counts as human or machine, gender constructions infuse technological innovation in various challenging ways.

Engenderneering the Non-Human

"Engenderneering" may be understood as the construction or interpretation of a gender-neutral object so that its gender becomes part of its essence. This personification, far from merely personifying an object, engenders the object by making gender roles and expectations central to how humans interact with non-human (usually also interpreted as less-than-human) entities. For example, ships have been christened traditionally as female, the reliable (i.e., motherly) bearers that keep passengers afloat upon the amniotic oceans. Gender is already so intertwined with human experience that the terra "engender"—aside from its intransitive sense of attributing sexual identity—acquires its primary meaning as a synonym for creation itself. Anna Balsamo (1996) laments that new technologies such as virtual reality simply "reproduce, in high-tech guise, traditional narratives about the gendered, race-marked body" (132). In the case of science fiction films, the project of engenderneering is rarely innovative. Instead, the emergence of new machines and forms of life leave basically intact the familiar stories of "proper" feminine roles.

David Tomas (1989) contends that relationships within nascent cyborg cultures are defined technologically rather than organically, a condition he calls "technicity" (123). Blood-based relationships are transformed into kinships that involve complementary functions. Tomas, however, bases his concept of technicity on the assumption that technology—especially in cyberspace—reduces dependency on the human body per se (125). An examination of several science fiction films demonstrates that while physical dependence on the organic body may be reduced in a cyborg environment, the psychological and social needs for bodily identities and distinctions persist. Technicity, even if literally an accurate description of identities and relationships, does not reduce the drive for gender construction and maintenance, as several case studies reveal.

Engenderneered Robots

Concentration on the relationship between machines and gender serves a specific purpose. When the body is technologized, many discordant components of gender become highlighted. The human-like machine, occupying an unstable position somewhere between nature and artifice, brings to the fore how women have been placed in similar states of tension. Simultaneously configured as (1) the natural means for extending
humanity (via childbirth); (2) the radical Other (an unfathomable, "hysterical" creature—cf. Maines, 1999); (3) the active cause of evil (the temptress, an archetypal Eve or Pandora); (4) the passive vessel of male desires and will (obedient servant, receiver of sperm, bearer of children but not head of household), to name just a few examples, women have been the nexus of paradoxical attributions. Just as cyborgs cannot be categorized neatly into familiar dualistic categories, "the female body historically was constructed as a hybrid case" (Balsamo, 1996, p. 19), albeit a hybrid whose constitution was a host of unresolved paradoxes. Those paradoxes surface clearly in the gender construction of machines and other entities that are, as Balsamo writes, "predicated on transgressed boundaries" (32).

Engenderneering acquires special significance in the context of engineering machinery that performs tasks that humans could discharge. Popular concepts of robotics personify robots, and this personification implicates gender. Gender-related expectations infuse public expectations for robotics, with robots anthropomorphized to reflect and extend the gender-associated roles. Although robotics engineers concentrate more on mechanical functions than anthropomorphic appearances, machines seem more "friendly" if they physically resemble humans—and also reinforce gendered social practices. The prevalence of anthropomorphic metaphors has humanized robotics in the sense that, as Wiener & Pescovitz (1996) argue, "if robots are to think and act like humans, they must be physically similar to them as well" (129).

Gendered robots have very deep roots in popular culture. In the Jetsons’ comic utopia, the mechanical maid—not surprisingly—was a female, Rose. This female came complete with gender-marked accessories such as an apron, a useless accouterment for stainless steel. Bergstrom (1991) observes that while personality-filled robots (e.g., R2D2 and C3PO in Star Wars) blur accepted distinctions between human and non-human, "sexual identity... can be used as the primary marker of difference in a world otherwise beyond our norms" (35). In strange (but perhaps not quite brave) new worlds, sexual identity and the social roles associated with it remain surprisingly familiar. Bergstrom (1991) affirms that sexual differences are encoded visibly in science fiction films; she also contends that these markers are deliberately explicit for audiences to decode. The feminine occupies a dual position both as radical Other and as the manifestation of gender expectations that have not launched far past their patriarchal bases. This strange irony, in this case initially most notable through gender-marked clothing, occurs in the human encounter with Robby the Robot.

The first robotic movie star in his own right, Robby the Robot offers an instructive case study in engenderneering. Robby made his first appearance in Forbidden Planet (1956), and his initial encounter with humans (aside from his creator) was drenched in gender references and markers. Upon meeting Robby, the male cook, imaginatively named Cookie, asks the crew’s physician, "Hey, Dec, is it a male or a female?" Robby replies: "In my case, sir, the question is totally without meaning." A brief semiotic exploration of gender construction in Forbidden Planet reveals just how meaningful gender can be, at least for humans. If anyone bears ambiguous gender markers for the 1950s, it is the plain-spoken cook. Cookie constantly wears his apron, even on the planet’s surface where there are no prospects of meal preparation. Apparently Cookie cannot escape his professional sign, which also happens to mark domestic, "feminine" duties customarily referred to disparagingly as "women’s work." Unlike the hard-drinking Cookie, whose role as a bourbon bootlegger partially offsets his feminine domesticity, Robby proves to be the obedient, domesticated housekeeper. After Robby has poured coffee and played the part of hostess, his creator Dr. Morbius reveals that Robby is modeled after his wife. The feminization of Robby’s domestic talents becomes explicit with the crewman’s observation: "I thought Robby had managed very charming feminine touches."

Robby’s domestic qualities do not exhaust his feminine traits, since like a good caretaker he also protects his charges. As he prepares to drive the landing party to meet Dr. Morbius, Robby exhorts, "Passengers will please fasten their seat belts." Dr. Ostrow, the crew’s physician, remarks: "Looks alter us like a mother." To the extent that humans must relegate complex or dangerous tasks to robots, the machines do protect humans from inconvenience and harm. Robotic protectiveness, however, comes at a price. If this instinct is pre-programmed, it no longer counts as a mark of virtue and is transferable at the programmer’s will. Thus motherly instinct becomes a commodity that can be reproduced, and its appearance is less a mark of care than a sign that a
stimulus has evoked the appropriate response. Such a devaluation, as Montagu and Matson (1983) observe, exemplifies the dangers of robots that are not malevolent. Instead of the destructive robot presaged by the Frankenstein saga, the apparently benign robot acts dispassionately, out of a drive for efficiency and correctness rather than care. Not surprisingly, robot and robot-like characters such as Data and Speck in the Star Trek series constantly struggle to feel emotions instead of only finding accurate answers. The tragedy of such machines in search of souls is what Montagu and Matson (1983) characterize as the "purely technical intelligence cut off from those balancing attributes of human nature invidiously categorized as sentimentality" (219). Framed in terms of gender, the difficulty arises from trying to manifest tendencies associated with masculinity while repressing their complementary tendencies that have clustered around notions of femininity.

Automated Temptation

The "intersexion" of gender and robotics perhaps appears most obviously in Maria, the seductive robotic villain of Metropolis (1926), who may be the first genuine robotic character in a feature film. The male creator, Rotwang, constructs the robot Maria not in his own image but as a surrogate for his lost love, Hel (Patalas, 1991). Since the robot is made in the image of a woman, it is especially telling that the ultimate test of the robot’s authenticity is its ability to cause sexual arousal. Simons (1992) remarks that "Maria is the first of her breed" because she represents the first conjectural attempt to create a fully functioning artificial life form "designed to seduce men into behavior against their interests" (185). The robot is considered certifiably genuine if it can whip tuxedo-clad aristocrats into a sexual frenzy. To test whether the synthesized Maria can pass as human, she performs an erotic dance at a party hosted by the city’s boss, Fredersen. Poor Freder, the admirer of the genuine Maria whose physical likeness the robot bears, becomes physically ill at the thought of his virginal Maria becoming a sex object. According to Patalas (1991), the validation of the robot Maria in Metropolis emphasizes the extent to which women "are the projections of male fantasies" in the film (166). Authored and authorized by males, the synthetic Maria earns the masculine seal of approval only after she performs her erotic dance, subjecting herself to the lustful gaze of male guests at the party, the delirious and terrified gaze of Freder, and the triumphant gaze of Rotwang the creator. The evil temptress is animalistically sexual, and it is difficult to separate her seductive skills from her evil nature. The robot Maria also is deceptively sensual, and this deceptiveness goes to her very nature. Far the robot, sexuality is (literally and figuratively) mechanical. The "real" Maria is genuine in the sense that she is consistently loyal to Freder (and she has no metal under her skin). But the human Maria, the Maria capable of sexual intercourse, is a "good girl." She first kisses Freder in the underground chapel, where the setting establishes the act as more spiritual than physical.

The feminization of robotics in metropolis does highlight the role of artifice, as Telotte (1995) recognizes. This artifice operates on two levels: the seductive lure of technological wizardry intertwines with sexual temptation. When gender becomes an issue in robotics, however, it inevitably problematizes what has been taken for granted: the process of gender construction. The creators of the robots in science fiction films are almost invariably male, representing, according to Telotte, "the extent to which the feminine has historically been crafted and controlled, defined by forces outside of the feminine" (17). The first robot in science fiction film seems appropriately cast in the form of a woman, since she is an instrument of control on two levels (Huyssen, 1981-82). Maria is created and controlled by a male scientist (i.e., Rotwang) for the purpose of rendering the male workers more pliant to the control of the Metropolis aristocracy (specifically, Fredersen). Yet, the act of physically constructing a robot co-opts the "natural" birth of a human, since childbirth is customarily within the province of the female. By custom and by language, the word midwife places women squarely in the delivery room. Perhaps the "unnatural" births so often assigned to male scientists must be punished by the illegitimate child turning on its creator, a scenario reenacted from Frankenstein to Blade Runner. The just reward for circumventing natural (pro)creation is a perverse child.

Although the manifest punishment seems to devolve on the male creator, these scenarios also reinforce traditional realms of gender activity. Not only should the male scientist not tamper with Mother Nature, he also should not usurp the role of mother. Indeed, the very madness of the mad scientist results from obsessive devotion to the creation itself, a blind love for the creative act—and possibly the creation itself, as in the
Pygmalion myth—without regard for the responsibilities such creation brings. An odd kinship is forged between seduction and destruction, according to Telotte (1995), with the embrace of artificial life often associated with abandonment of family, friends, human love, and duty to society.

More subtle examples of gendered mechanics and the mechanics of gender appear elsewhere. In the original Star Trek series, the computer’s voice is female (to be exact, Majel Barrett, Gene Roddenberry’s wife). The choice of a feminized computer in the sixties is not surprising. As the human helpmate, the computer assumes many of the roles traditionally assigned to the wife. Like any subservient helpmate, however, the computer must remain obedient to the humans it serves. Countless crises emerge from the computer "malfunctioning" not by failing to operate but by transgressing its assigned role and functioning independently of humans. Worse yet, the recalcitrant computer becomes particularly dangerous when it has a mind of its own. The obedient and properly functioning computer thinks for humans but not for itself. The Star Trek original series episode "Mirror, Mirror" adds a fascinating twist. In the alternate universe that contains an evil Enterprise crew, the computer has a male voice. This masculinization of course helps complete the reversal from the "good" Enterprise to its "evil" counterpart. Additionally, however, the feminized computer is associated with what is naturally good or at least benign while the masculinized version inhabits a world of treachery where crew members advance in rank through assassination. At face value, the alignment of the feminine with the benign seems an advance from the role of the feminine temptress that has plagued science fiction novels, stories, films, and series. On the other hand, the choice to masculinize the computer in the evil universe also shows how solidified gender roles had become. Instead of the feminine having the flexibility to function within benign and malignant contexts, both the masculine and the feminine are confined to their habitual associations. No traffic is possible between the kind, nurturing, and obedient helpmate and the conspiratorial, devious, and murderous... what?

It is informative that in the search to categorize traditional yet not wholly flattering roles of males, my vocabulary shrinks to the likes of "soldier," "breadwinner," and other badges of honor that still show comparatively little tarnish. Yet, no shortage of comparable terms invites application to femininity and thereby to women. These terms roll off Meredith Brooks’ tongue in her song celebrating and appropriating the roles assigned to or assumed by women: "I’m a bitch, I’m a lover, I’m a child, I’m a mother, I’m a sinner, I’m a saint ... I’m your hell, I’m your dream, I’m nothing in between. . . ." In the polarized language of gender, Brooks entitles the song "Bitch," embracing arguably one of the most commonly employed terms used to degrade women.

**Anthropomorphized Technology**

More than any other feature, a robot’s intelligence will encourage humans to view it as what Simons (1992) a "surrogate person" (168). On one level, that contention has merit insofar as a robot that cannot perform human-like functions cannot be regarded as human. On another level, Simons acknowledges that "the primitive animism" of humans makes them more likely to treat as human whatever looks human (176). The more intimate that humans become with robots, the more demand there likely will be for robots to resemble physically humans that would have engaged in those relationships. The unfamiliarity and latent discomfort with robotic technology might help explain the immediate need for gender markers when humans encounter robots in science fiction films.

Even in situations that have little to do with gender per se (i.e., in forums unrelated to romance or relationships), the revelation of gender (whether honest or not) apparently provides an anchor for further interactions. Presumably, as humans become more accustomed to interacting with non-human counterparts, the physical cues of humanity should become less necessary. Not so. To make technological innovations less disruptive, the new technologies must meet user expectations associated with human interactions. When interacting with other humans, however, gender does play a role in how the interaction proceeds. Reeves and Nass (1996) observe that engineers cannot ignore the influence of gender. Until gender expectations change or fade away, gendered machines (e.g., with voices, animated icons, etc.) probably will associate traditional gender expectations with
the required task. For example, male voices will be obeyed more when they evaluate performance. Of course, the new technologies themselves could contribute to changing expectations, but at the cost of some disorientation.

*Alien: Resurrection* (1997) might present an exception to entrenched gender. The auton played by Winona Ryder could disrupt gender role expectations. If robots are designed by robots (the definition of "auton"), then gender could be designed out of new models, since it would serve no function and would have no biological value to the designers. Lamenting her inhumanity, Call labels herself "disgusting," contrasting her mechanical nature with that of the clone Ripley: "At least there’s part of you that’s human." But gender role expectations prove much more difficult to design away. Thus the character Johner, who appropriately appropriates the name of a man who solicits prostitutes, immediately draws sexual implications from the revelation that the female-looking Call is an auton. Johner, played by Ron Perlman, cast as the emotional beast rather than the physical beast Perlman played on television opposite Linda Hamilton, reacts to Call’s robotic status by exclaiming: "Can’t believe I almost fucked it." Johner’s paraplegic comrade replies with a characterization of sexually passive females as well as Johner’s own sexual omnivorousness: "Like you never fucked a robot.

Although categorized by Johner as a genderless "it," the robotic Annalee Call preserves many of the stereotypically feminine traits that serve only as gender markers. Call is petite and apparently has at best average human strength, since she cannot escape being held hostage by a human male and must be rescued. She also bungles an assassination attempt because she lets her emotions overcome her mission to kill. As with Becky in *Invasion of the Body Snatchers* (1956), the mark of female incompetence is the inability to stifle emotions at will. The human clone Ripley manifests masculine characteristics complementary to those displayed by Call. Ripley is tall, physically imposing, has superhuman strength, functions efficiently with no nonsense, and methodically executes the enemy. Such complementarity could provide useful resources for a lesbian reading of the relationship between clone and machine in the film. Both characters transgress heterosexual customs. Call and Ripley are asexually produced, through robotic assembly and cloning. Call is explicitly rejected by the most blatantly heterosexual male; Ripley violently repels sexual advances from males. Sharing an "unnatural" birth, the two females bond due to their common rejection of heterosexually charged human interaction. In this relationship, however, gender roles still operate overtly. Apparently the robotic designers of autons are quite human after all.

*Women and Machines*

Simons (1992) observes a consistent tendency for advertisements of early films depicting robots to show females helpless in the grip of male robots(185-186). The examples Simons cites do reinforce the paternalistic ideal of a powerless woman who needs a man to save her. A poster for *The Day the Earth Stood Still* (1951) shows Patricia Neal drooping limply in the arms of Gort. In another scene that never appeared in *Forbidden Planet* (1956), the movie being promoted, Ann Francis is shown unconscious while Robby the Robot holds her in his arms. In the promotional material, Robby becomes fully masculinized despite his oscillation in the film between "feminine" duties such as cook and seamstress, and more traditionally masculine roles such as heavy laborer and defender. Claudia Barrett also occupies the familiar limp (most likely fainted) female position in a poster for *Robot Monster* (1953).

Science fiction films rarely treat subjects univocally. Brooks Landon (1992) contends that the genre actually may be defined by its contradictory stance toward topics such as technology: amazement at its wonders, fear of its effects. One site of ambivalence is how women are portrayed: sometimes as technically competent but just as often "essentially helpless in any crisis" (23). When women do display practical skills, as in the Alien films, they may simply surpass their male counterparts in their ability to meet threats through conquest and destruction.

One might naturally invoke Foucault to assist in explaining the process of marginalization, in this case the persistence of gender attributions that devalue women. Although Foucault concentrates on the construction of
identity through the physical body and the social body, as Balsamo (1996) argues, his analysis fails to problematize how such a process operates for women. As a result, the attribution of gender remains unaddressed in Foucault’s thought, an attribution that acquires new complexity when processes such as prosthesis, artificial insemination, the prospect of cloning, and other technological innovations have brought the traditional "natural" sexual roles and identities into question. In Balsamo’s terms, if "the human body is ‘gendered’ through a series of social acts that begin long before physical birth" and such gendering does not depend solely on physiology, then the processes that contribute to gender identification lie in the interaction of social customs and expectations with their embodiment in a human (or somehow human-like) physical form (25).

The difficulty depicting women consistently, even within the same film, alludes to a larger issue: what Landon (1992) calls "the genre’s tension between the strange and the familiar." Women occupy simultaneously the position of radical Other, alien and (or perhaps because) opposed to patriarchy, and protected treasure, subsumed by patriarchal normative codes of justice and propriety. The issue may be recast in terms more reminiscent of Foucault (1998). Science fiction films offer sites where gender is problematized in ways that define women as subjects and objects. As subjects, women may emerge as agents or as subject to the agency of forces beyond their control. As objects, they may be fixated by a male gaze or rendered inert by patriarchal codes of conduct that render the feminine both objectified (rendered as the Other) and objectionable (equating Otherness with inferiority). These options of depiction, far from being mutually exclusive, simultaneously permeate much science fiction film. Within the hypothetical universes created in cinematic science fiction, the definition, roles, and status of women and femininity are far from clear or consistent. This genre provides fruitful ground for investigation because it postulates what may count as truth and propriety in the future. By elaborating the conditions of scientific truth, science fiction film also envisions the practices that establish conditions for social identity, including gender. Instead of restricting study to the historical retrospective of social practices, what Foucault (1998) calls "the angle of what ‘was done’" (462), science fiction film opens the possibility of proactive research that reveals potential conditions that could foster or frustrate oppression.

Works Cited


