Astronautic Subjects: Postmodern Identity and the Embodiment of Space in American Science Fiction

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Abstract:
This essay will deal with the embodiment, or more precisely, the gendering of space since the 1950s. My focus will be on the figure of the astronaut, which I interpret as a continuation of the cowboy and pioneer character in the context of Western, and more specifically, American culture. In the postmodern age, the astronaut is endowed with an important cultural function: Through the image of the spacewalker, gender can be simultaneously negotiated as a fragile construct - given the fact that the 1950s also marked the establishment of new gender roles and new ideas about sexual identity - and restored as an affirmative category in which issues of national and masculine identity are symbolically merged.

Introduction: Gender and the Space Age

1 Space has always posed both a temptation and a threat to Western cultural imagination. It entails notions of infinite possibility and boundary transcendence, nevertheless also creates an openness of experience that can be perceived as irritating and frightening. The image of limitless space leaves us speechless, but it also evokes a desire in us to position ourselves in relation to this new terrain. Setting out from this observation, my essay will deal with the embodiment, or more precisely, the gendering of space since the 1950s. My focus will be on the figure of the astronaut, which I interpret as a continuation of the cowboy and pioneer character in the context of Western, and more specifically, American culture. In the postmodern age, the astronaut is endowed with an important cultural function: Through the image of the spacewalker, gender can be simultaneously negotiated as a fragile construct - given the fact that the 1950s also marked the establishment of new gender roles and new ideas about sexual identity - and restored as an affirmative category in which issues of national and masculine identity are symbolically merged.

2 The starting point for this essay is Rosi Braidotti's model of the "nomadic subject," by which she characterizes female subjectivity as a provisional and transitory concept designed to resist power structures. I want to carry this approach one step further to include a hegemonic discourse in postmodernity that can be both emancipatory and stabilizing as far as normative codes of behavior are concerned. The "astronautic subject," I will suggest, is different from the "nomadic subject" in that it extends the radius of its actions even further, evoking a notion of limitless possibilities and unrestrained self-empowerment, yet also encompasses components of a manifestation of gender hierarchies. Being both a construct of hegemonic culture (e.g., in images of relentless space cowboys pursuing a politics of

'regeneration through violence') and an empowering field of continual becoming and performative agency (e.g., in the case of gendernauts), the "astronautic subject" offers a deeply ambiguous image, full of paradoxes and inconsistencies. It is both less gendered than the "nomadic subject" in its transgressiveness and detachment from existing value systems and more gendered in its connection to ideological discourses such as space technology and masculinity. The fact that the astronaut has become a key figure in the dominant imagery of Hollywood fiction as well as in the counter discourse of minority groups such as transsexuals, gays and lesbians (who, interestingly enough, utilize dominant texts such as Star Trek to create a form of fan fiction that stresses the liberating subtext of that imagery), illustrates the extraordinary potential of the concept. In a Deleuzian sense, the astronautic subject is bestowed with "multiplicities," i.e., it is equipped with a body that can be used as both an ideological object of power maintenance and a vehicle of transgression and emancipation.

A New Creation Myth

3 The opening sequence of the 1967 James-Bond movie *You Only Live Twice* presents us with an awe-inspiring scenario: A starship floats in silence through outer space. In the background we can see the light-blue contours of the earth surrounded by a starless sky. As the camera zooms in on the spacecraft, we recognize the label "United States" on its upper torso. Suddenly, the silence is pierced by a voice, "Calling Cape Com. Cape Com. This is Jupiter 16." What follows is a series of juxtaposed shots - close shots of the two astronauts on board of the spaceship as well as long and extreme long shots of the Ground Control Center and the silhouette of the earth. We are obviously witnessing a space expedition controlled by American scientists. The initial voice, we soon learn, belongs to an astronaut named Chris[1] who is just about to leave the capsule for a spacewalk, an enterprise repeatedly referred to as "EVA" - the technical term for extra-vehicular activity. "Don't stay out too long, Chris," the operator from the command center warns him. But it is already too late. As Chris deboards through a hatch, in slow motion, and starts floating in midair, an uncanny melody prepares us for the dramatic events which are about to occur.

4 Before we actually see anything at all, the voice from ground control informs us that "an unidentified object is closing in" on the spacecraft from astern. The object is a giant rocket, in fact that of James Bond's archenemy Ernst Stavro Blofeld. The camera angle

[1] The name "Chris" can be interpreted as a metonymy, referring to the pioneer status of the astronaut in the 1960s. Like Jesus Christ, the astronaut is both a missionary and a martyr. The iconic function of the astronaut in *You Only Live Twice* is underpinned by the fact that the actor who plays Chris is not specified in the film's credits which only refer to Norman Jones and Paul Carson as the actors playing the two astronauts on the first spacecraft.

switches to an extreme long shot, revealing an eerie sight: Blofeld's aircraft slowly approaches the American spaceship, getting ready to swallow the smaller vehicle. "It's coming right at us," Chris exclaims in terror, "the front is opening up!" With the shocked astronaut, we now see the hostile rocket from a frontal view. The rocket's hatches, equipped with menacingly pointed edges, make the machine look like a giant set of teeth. As Blofeld's missile slowly devours the American spaceship, we can still see Chris hovering in the air, attached to his mother ship only through a thin cable evocative of an umbilical chord. A close-up shows the rocket's mouth biting off the astronaut's connection to his spacecraft, a moment effectively highlighted by Chris's desperate exclamation, "My lead line! It's cu…" His voice is abruptly stopped by a dull, mechanical sound. Then we see the astronaut's body, still positioned in the center of the camera frame, as it slowly drifts away into the depths of outer space. When Chris's lead line is cut off, the music also stops.

Fig. 1.

5 The astronaut's disconnection from his mother ship is marked as both a death and a rebirth. He is released into a new, mysterious terrain, different from the Old World in almost

every aspect. The meaningful term EVA, used three times in the short sequence, contributes to this impression. The movie here utilizes a creation myth which was becoming increasingly important in the 1960s - that of man being reborn in space. Hence, the mission shown in the sequence is filled with notions of both *recon*struction and *de*struction. Significantly, the American astronaut is no *Adam*, the possible forefather of future generations, but a *Chris*(tian), a martyr for the idealistic cause. Hardly protected by his spacesuit, Chris is carried to new regions in outer space, maybe to a new universe. Although we can conclude that Chris certainly dies on this trip, we might also stick to the illusion that something will survive (since we do not actually see him perish). Notably, his appearance in the spacesuit is still the same, revealing no signs of the fatal interference to his life-saving functions. Similar images of space as a destructive, yet also reproductive power have accompanied science-fiction texts from early on. The February, 1934 cover painting of the American science-fiction magazine *Astounding Stories* shows two astronauts in metal uniforms moving towards the planet of Mars. In a caption in the lower right half, the story "Rebirth" by Thomas McClary is announced in blazing capital letters. Space travel is linked in this imagery to a notion of overcoming not only space, but time itself.

Fig. 2.

6 Modern criticism has long debated the function(s) of utopian fantasies for the process of cultural self-fashioning, pointing to the peculiar link between visions of the future and references to the present. "[B]y examining people's ideas about the future," Claudia Springer observes, "we can learn about their responses to present-day issues, for contemporary cultural battles find expression in even the most shocking and improbable speculations about the future" (15). Conceived in this manner, the obsession of contemporary science fiction with images of transgression can be seen as a comment on the current dilemma concerning identity roles. The realm of science fiction abounds with visions of gender-neutral or matriarchal societies, of sex-changes and miraculous bodily transformations, of hypersexual, multisexual, and sometimes asexual creatures. In this essay, I will argue that the motif of identity subversion is combined in American science fiction with another key image most characteristic of cultural self-models: the discovery and utilization of new frontiers. The merging of gender issues with issues of cultural self-fashioning is necessarily ambiguous, revealing a model of the future that can be both affirmative and subversive. This model may reconstruct old frontiers in the guise of new ones, but it may also open up truly alternative ways of conceptualizing the world.

Fashioning the Astronautic Subject

7 The figure of the astronaut stands at the center of such fantasies. Sci-fi texts can either accentuate the spacewalker's national affiliation or point to his/her resistance to any form of collective identity. The fashioning of "astronautic subjects," however, is not limited to the realm of science fiction, nor is it restricted to a certain terrain within the cultural imagination. The "astronautic subject" is a quite real phenomenon of postmodern social and cultural practice. Since it ostentatiously conceals the protagonist's actual biological sex behind a thick uniform, the concept of astronautic subjectivity encourages us to question the validity of any form of core identity. Moreover, by highlighting the astronaut's desire to conquer new terrains, it intimates the possibility of a far-reaching transformation of social patterns.

8 Hence, the astronaut can be seen as a chronotope for the transcendence - and eventually subversion - of (gender) identity. In a Bakhtinian sense, the space traveler not only transgresses time and space, but also condenses time *in* space. The images of the first spacewalker, Edward H. White, taken in June, 1965, can hardly be distinnational icons attached to it and the helmet (which even hides facial features), we guished from the pictures of Bruce McCandless, shot almost twenty years later. Time seems to be meaningless for the spacewalker. In such illustrations, astronautic identity is portrayed as a surface - *consistent* in

its utter appearance, but also *inscrutable* as far as the structure *behind it* is concerned. The lack of mimic play and outward gestures makes the astronaut a projection field of our own ideas. Since the astronaut's appearance is marked mainly by the spacesuitwith its are continuously looking for clues behind this cold façade - some hidden meaning, a sign that enlightens us about the astronaut's true identity.

Fig. 3. and 4.: Astronautic subjects: Edward H. White in June, 1965, and Bruce McCandless in February, 1984.

The Nexus of Time and Space

9 The symbolic nexus of time and space has always been a characteristic feature of scientific texts on space traveling. Pointing to the potential transformation of individual experience during aeronautic activities, time and space serve as central metaphors for the constitution of astronautic identity. Two years after the founding of NASA, Manfred E.

Clynes and Nathan S. Kline published a path-breaking essay, "Cyborgs and Space," in which they praised the astronaut as a model of human progress. "Space travel challenges mankind not only technologically but also spiritually, in that it invites man to take an active part in his own biological evolution" (26). In his introduction to D.S. Halacy's bestselling book on cybernetic organisms, *Cyborg - Evolution of the Superman*, Clynes summarized this view, now emphasizing the frontier as the marker of astronautic identity:

> A new frontier is opening which allows us renewed hope. The new frontier is not merely space, but more profoundly the relationship between "inner space" to "outer space" - a bridge being built between mind and matter, beginning in our time and extending into the future. (7)

10 According to Clynes, the astronaut must be regarded as a wanderer between the worlds, a composite creature which oscillates and mediates between inside and outside, present and future, mind and matter. One of the main challenges of space travel, the two scholars argue, is that it invites the scientist to control the processes of human evolution, endowing the astronaut with the capability of adapting to an alien environment. If the human body could be integrated into the necessities of the space age, the result would be a new form of humanity. The main task, according to Clynes and Kline, was to adapt man's body "to any environment he may choose" (26). Although the alterations in the astronaut's body that Clynes and Kline recommend - hypnosis, the use of drugs, especially mental energizers and amphetamines, and even surgery to improve the bodily system - do not appear realistic today, the vision behind it is still frighteningly present in current discourses. By arranging a collaboration between cybernetic systems and the astronaut's own bodily powers, man would be "[left] free to explore, to create, to think and to feel" (Clynes & Kline 27). The declared goal of this rhetoric was the modification of the man-machine complex into a self-regulating organism which incorporated the spirit of individual freedom while also retaining a notion of human progress. In an interview published thirty-five years later, Manfred E. Clynes reaffirmed this credo:

> The main idea was to liberate man from constraints as he flies into space - […] it seemed necessary to give him [the] bodily freedom to exist in another part of the universe without […] constraints. (Gray 47)

The Cyborg as Superman

11 This rhetoric is not only charged with images of progress, technology, and emancipation, it is also highly *gendered*. In his introduction to Halacy's *Cyborg - The Evolution of the Superman*, Clynes makes the following observation:

> A new word was created in 1960 to describe a new concept for man's venture into

> space: *Become* a superman; live in space as at home - if possible, better than home! Do not take into space earth's hindrances and encumbrances. Be a free spirit in space, weightless and not weighted down by the limitations of terrestrial ancestry. (7)

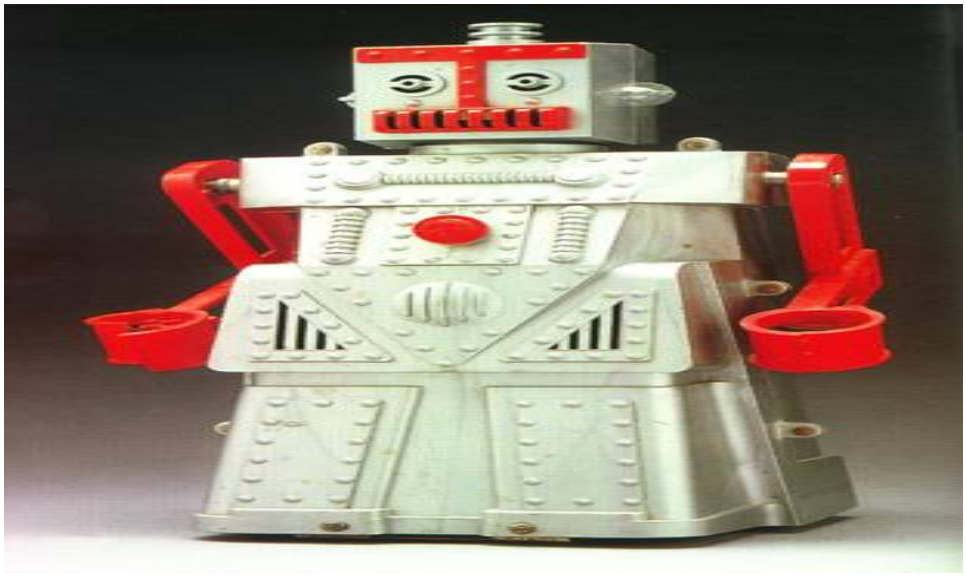
The deployment of Nietzschean imagery in Clyne's statement (and, above all, in Halacy's book) is symptomatic of a phallogocentric approach. Masculinity here functions not only as an indicator of technology and progress, but also as an agent of democracy itself. Given the background of the Cold War, the astronautic superman in 1960s cultural iconography had to be male and masculine, fighting for the tenets of Western civilization. His voyage into distant spheres is marked as evidence of his energy and will-power. Donna Haraway contends that such images echo the old myth of man as tool-maker, according to which "man makes everything, including himself out of the world that can only be resource and potency to his project and active agency" ("Promises" 297).

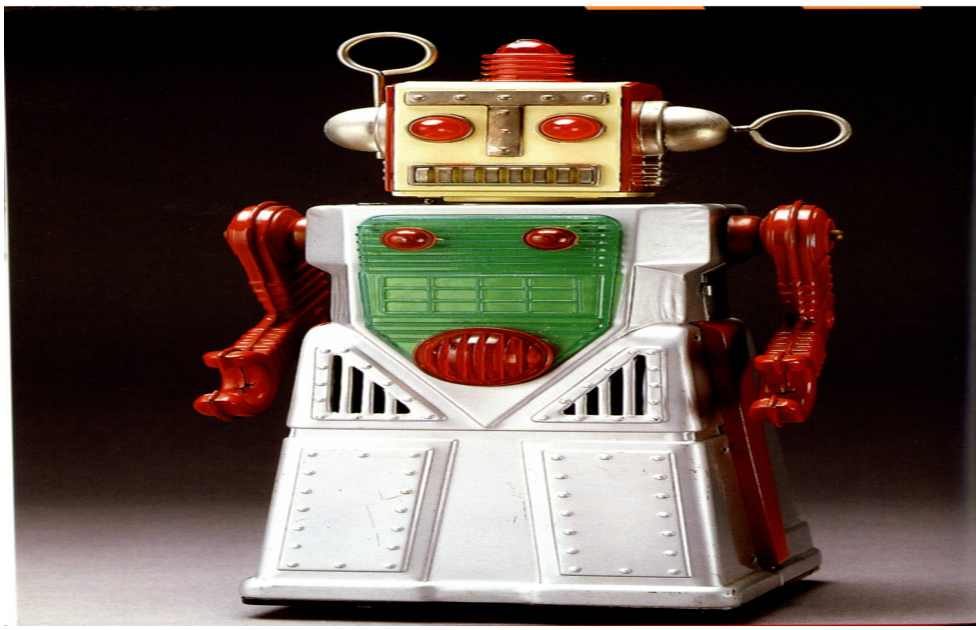
12 However, the spacewalker in Clynes's article is not only coded as a gendered creature, but also as an independent thinker, a "free spirit in space" (ibid). By leaving the terrestrial sphere and delving into a previously undiscovered terrain, the astronaut literally overcomes the constraints and limitations symptomatic of life on earth. As an exposed figure of cultural imagination, the spacewalker is capable of detaching him-/herself from existing formula and constructions, including codes of gender identity. Astronautic imagery suggests that the limitations of terrestrial ancestry can be deconstructed through the metaphor of spacewalking, the meandering and trespassing between two worlds.

The Gender of Astronauts

13 The astronaut floating through space appears almost sexless and genderless. His/her spacesuit protects him/her not only from harmful influences in outer space, but also from a penetrating and inscribing gaze. We do not see what is inside of the astronaut's shell-like exterior. Behind the technological masquerade, we may find either sex, either gender. In the face of this elusiveness it seems only logical that science-fiction imagery has continuously attempted to fill the void behind the spacesuit, to endow the astronaut with a specific gender identity. The American toy industry offers a good example of this ideological reconstruction of the space explorer. In the early years the space robot is still machine-like, clumsy, and often sexually ambiguous. "Robert Robot," for example, is a rolling automaton with a huge lower body and a triangle-shaped groin. This type of toy is endowed with rather "feminine" attributes, offering the viewer an image of the robot as a mere instrument manufactured to satisfy his master's wishes. The "Modern Robot" has a similar physical appearance, only that its head is equipped with two metal appliqués reminiscent of earrings. As symbols, the metal

appliqués fulfill two contradictory functions: On the one hand, they gender the space robot female, thus underlining its subservience and passivity. On the other hand, they contribute to the image of the robot as a "pirate," possibly revolting against the race of humans.[2] In addition, this robot has two round buttons or knobs in the area of its upper chest, vague reminders of the human physique. Another device is the "Nonstop Robot" that comes all in pink. This toy shows us its interior "organs" that seem to consist solely of screws and small wheels.





[2] In the 1940s and 50s, science-fiction literature strongly emphasized this dualism within the robot's nature: Originally created as a useful machine, the robot in these texts was bound to develop a consciousness. Due to a more refined technology, robots of the later generation were about to become more self-aware and finally resist their initial objectification. This popular vision of a subjectified robot identity can be found, for instance, in Isaac Asimov's texts, collected in an early anthology with the apt title *I, Robot* (1950).

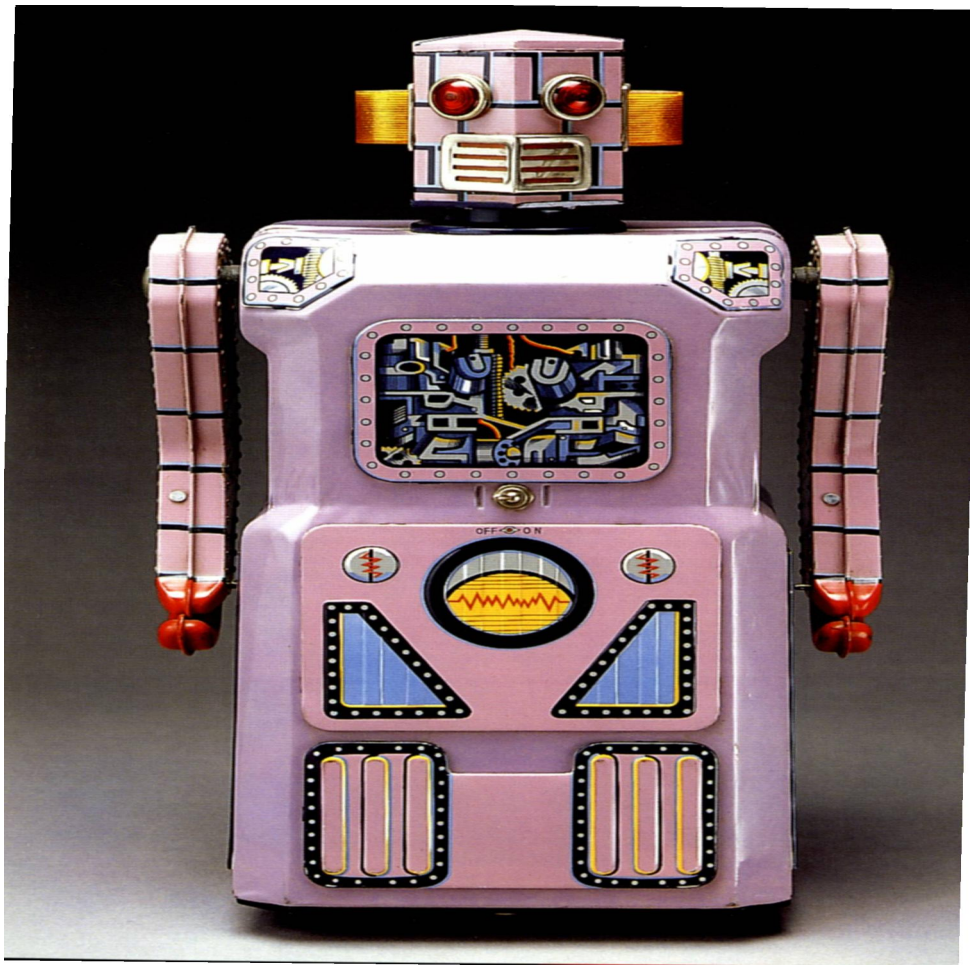
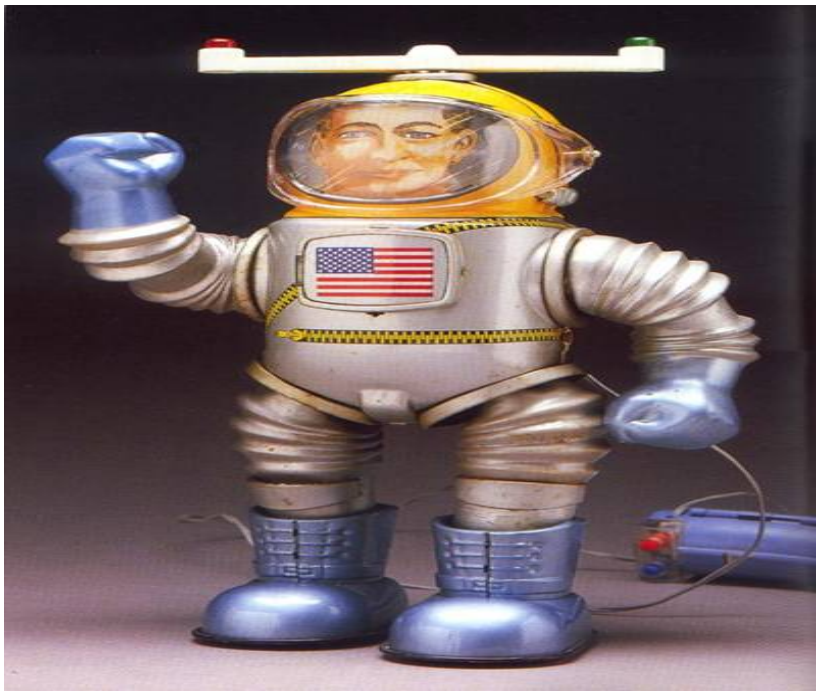


Fig 5., Fig 6., Fig. 7.: Androgynous creatures. Robert Robot, Modern Robot, Nonstop Robot (1950s).

14 The 1960s constitute the stage for a new type of space robot - the patriotic Moon Scout, which not only carries the American flag on its uniform, but also exudes an aura of masculine vigor and vitality. The toy clearly signals a paradigm shift in postwar ideology from the initial objectification of space technology to a masculinization of space itself. Absorbing the traditional signifiers of male gender identity, the Moon Scout illustrates the increasing conflation of national and gender issues in space discourse. A variation of this toy is the "wind-up walking astronout [sic]" from the 1970s which comes together with a razer (an instrument to extinguish potential enemies). Although positioned on wheels and equipped with a mechanism for winding it up (indicators of the astronaut's initial servility as a servant of his country), this toy is clearly designed to exemplify the new qualities of the astronaut as a he-man, suggesting charisma, vigor, and energy. Another significant aspect is the emergence of masculine facial features. Notably, this new variant of the space explorer openly displays his fists, as if to confront us with his extraordinary strength. In addition, he is endowed with a conspicuous bulge in his "pants," which both emphasizes his maleness and - one might add -

his "Americanness." This is the birth of the astronaut as a patriotic individualist and conqueror of new worlds. Yet, it is also through these overt inscriptions that the constructed character of the astronaut becomes obvious. It seems as if these markers of male vigor are necessary to endow the figure with an identity that would otherwise not be recognizable.



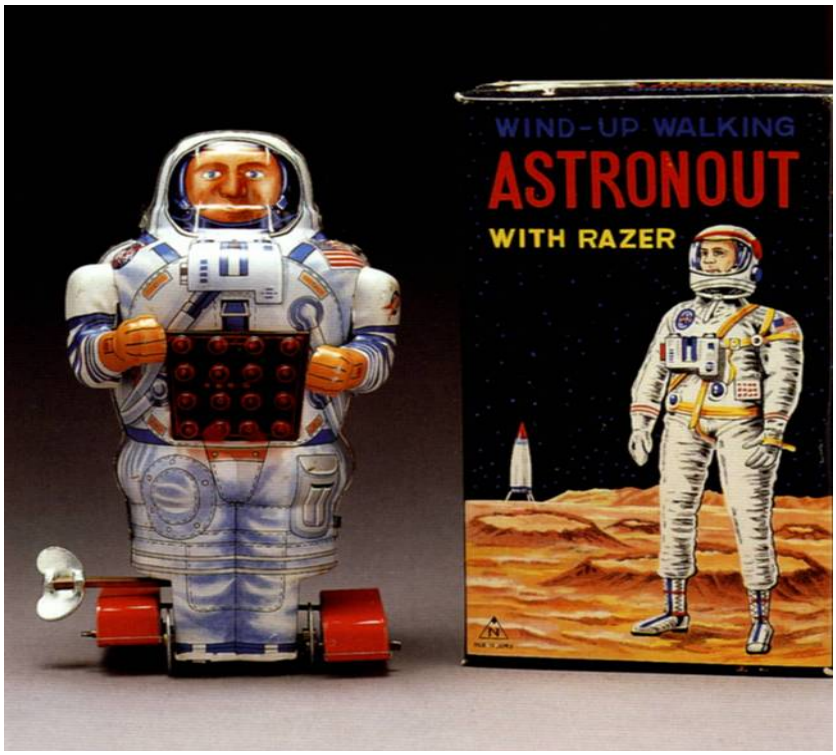


Fig. 8., Fig. 9.: The Moon Scout (1960s) and the wind-up Walking Astronout [sic!] with Razer (1970s) – epitomes of vigorous masculinitity.

15 In this era, the body of the astronaut is increasingly used as a projection screen for anxieties concerning the stability of gender categories. This is especially obvious in the genre of bionic fiction that was specifically popular in the US in the mid 1970s. In the TV-series *Six Million Dollar Man* (1976), we encounter the crash victim Steve Austin (played by Lee Majors) who is rebuilt by space researchers in a laboratory as a cybernetic organism. The goal of the researchers, we are told, is to make him fit to go into space. The show's concept was based on a peculiar conflation of the identities of the show's producers and the scientists who build the Bionic Man. At the beginning of the first episode, a narrator informs the viewers, "Gentlemen, we can rebuild him. We have the technology." The astronaut's masculinity is presented here not as a natural asset, but as the result of extensive technological studies which fashion male subjectivity according to the ideals of efficiency and functionality: "We have the capability to make the world's first Bionic man. Steve Austin will be that man. Better than he was before. Better … stronger … faster."[3]

16 It is no coincidence that the TV-show keeps underlining the connection between NASA and cybernetic engineering. The male astronaut here functions as a hinge between the relatively new discipline of aeronautics and the old vision of progress through technology. Interestingly enough, the actual site of bionic fiction is not space, but the surface of the earth. The act of "going into space" is translocated to a very earthly sphere, either being a research laboratory or a restricted area for tests. Susanna Paasonen observes that in bionic fiction it is the human body which becomes "the space to explore and modify" (par. 31). The body of the astronaut, in this reading, is the actual ground of contestation where different visions concerning gender, progress, and technology are blended. This type of body is a site of contradiction, given the fact that it is loaded with gender, yet also revealed as a scientific construct. As an imaginary body, the figure of the astronaut offers us the option to find new identities and transcend the dichotomies dictated by Western society. As a symbolic body, however, it reminds us of the restrictions that cultural representation always implies. In the figure of the astronaut in cyber discourse, gender is at once debunked as a superficial idea and reinstated as a cultural fact.

Postmodern Subjectivity and the Body without Organs

17 This dilemma corresponds to the situation of the postmodern subject who is also torn between the trajectories of boundary maintenance and deconstruction. The 'grand narratives' of an alleged truth and hermetic unity have become obsolete in postmodernity. Stable

[3] These lines are from the show's trailer aired in television spots during the year 1976. See http://vodpod.com/watch/3450218-better-stronger-faster-the-six-million-dollar-man.

meaning has been replaced by the free play of the signifier. By detaching itself from the phallogocentric inscriptions into the body, the postmodern subject begins to incorporate a new model of liberty and emancipation. In the words of Susan Bordo, "Western science and technology have now arrived […] at a new, postmodern imagination of human freedom from bodily determination" (*Unbearable Weight* 245). Within the postmodern imagination, anatomy is thus no longer destiny. The individual him/herself decides which position within the symbolic order she or he wants to take. The most obvious example of this new form of individual self-fashioning is the transsexual body, which combines organic and technological features to a new and unique concept - "the romance of the knife," as Sue-Ellen Case has put it (115). The old slogan, "Become whatever you want to be," assumes a new meaning in the age of plastic surgery and body modification. Everyone can forge his or her own individual body. Referring to the transsexual body in cyberpunk fiction, Cathy Peppers thus speaks of a "utopian subjectivity founded on the pleasure of boundary confusions" (166). The act of transcending boundaries is no longer a sacrilege but a promise.

18 The poststructuralist philosophers Gilles Deleuze and Félix Guattari have developed a theory that almost sounds like an instruction manual: "How Do You Make Yourself a Body without Organs?" (149). The traditional image of the body as a stable unity is replaced here by the notions of malleability and human creativity. According to Deleuze and Guattari,

> the body without organs is not a dead body but a living body all the more alive and teeming once it has blown apart the organism and its organization. […] The full body without organs is a body populated by multiplicities. (30)

In this model, subject and object are no longer seen as homogenous unities separate from each other, but as loose interconnections of energy, movement, flow, strata, segments, and intensities (Grosz 167). Through a process of continual becoming, Deleuze and Guattari explain, diverse forms of identity constitution are facilitated. The postmodern body image encompasses a multitude of different identity options. It almost seems as if the feminist ideal articulated by Susan Suleiman has already become a reality: "[We must] get beyond the number two" (24). The moment we engage in this journey to search for new ways of identity constitution, we are confronted with a confusing, yet also liberating number of possible identities. Subjectivity here assumes a nomadic quality, far from normative inscriptions.

Man as Mother, or, Gender Trouble in Space

19 Feminist cyber fiction has paid special attention to issues of gender construction and subversion. Ursula Le Guin's dystopian novel *The Left Hand of Darkness* (1969), for example, deals with a hermaphroditic race living on the planet Gethen. Although all

inscriptions based on gender identity have been abolished on this planet by decree, the battle over dominance still continues, and there is no real balance. According to Le Guin, the aim of the novel was to outline *that* symbolic field which is shared by men and women ("Necessary" 133). Her model is based upon Jung's concept of animus-anima, according to which every individual has both feminine and masculine traits. A similar attempt to examine and criticize the disastrous split of human subjectivity into masculine and feminine can be found in Joanna Russ's novel *The Female Man* (1975). The novel's anti-hero, Jael, is a hybrid creature. Her cyborg body is endowed with a number of deadly weapons, claws and teeth made of steel, and a technologically enhanced muscular apparatus.

20 American science fiction films have added some imaginative settings to the scenario of gender confusion. Ridley Scott's *Alien* (1979) offers a frightening image of dislocated biological patterns, especially patterns of reproduction. The queen of the malicious aliens is a gigantic breeding machine that even abuses the *male* members of the human crew as "mothers" for her ghastly offspring. One the most impressive scenes in the movie shows a male astronaut, played by John Hurt, from whose belly the monster bursts in the form of a bloody birth. The image of the mother is crucial in this context since the whole spaceship, on board of which the alien makes its nest, is called "mother." In this sense, it is not only the individual male astronaut who gives birth to a child but also science itself (in the form of the spacecraft), which becomes symbolically feminized.

21 A more gentle version of male reproductive powers can be found in Douglas Trumbull's 1972 eco science-fiction movie *Silent Running*. Here, a male botanist named Freeman is left all alone on a space-station orbiting Saturn where he takes care of the last remnants of vegetation of a nuclear-devastated earth. When Freeman gets the advice to destroy the plants, he decides to ignore the order and bring his spaceship on a course away from earth. Together with his drones, three little robots, he tends his garden, speaking of himself as "mother." When all fails he sends the garden into deep space to facilitate a possible second chance for mankind. Freeman is in more than one sense a free spirit in space. Not only does his name, Freeman, signify a liberation from restrictions and constraints. He is the only character left on a spaceship after abandoning both his former co-workers and his civilization as a whole. He becomes a silent martyr with only two children to survive: the garden and one of the robots.

The Longing for a Third Sex

22 Other science fiction movies make use of sexually ambiguous characters to negotiate

the in-between-ness of space. In the *Star Wars* quintology we meet the comical figure Jar Jar Binks, a huge, clumsy, yet good-natured Gungan, who is marked as a composite figure not only through his appearance (he wears a skirt and has a wiggly-kind-of walk), but also through his speech. Jar Jar does not speak the high dialect of his community, but a Gungan/Basic pidgin. In addition he has a high, soothing voice that leaves it unclear if the character is a male or a female. An outcast of his native clan, Jar Jar has to survive in the swampland of Naboo and live on raw shellfish before he is rescued by the official fleet of the Galactic Republic. All these signifiers establish him (or her?) as a highly ambiguous creature. Jar Jar Binks is not the only ambiguous character in the *Star Wars* quintology. *Episode II: Attack of the Clones* features a warrior woman who fiercely attacks the beautiful senator Amidala. This amazon figure, it turns out, is a so-called "changeling," that is, in the terminology suggested by the makers of *Star Wars*, a creature that can alter its biological sex as well as its general appearance. "The 'he' is a she," one of the Jedi knights remarks and adds, "she's a changeling." Unlike the Jar Jar Binks figure, the changeling is a dubious and potentially threatening character. The act of changing is associated here with deceit and hidden danger, since the changeling is never what he or she seems to be.

23 Steven Spielberg's movie *E. T.* from 1982 offers a less threatening version of alien boundary crossing. As Vivian Sobchack has convincingly shown in her essay "Child/Alien," the friendly creature E.T. stands for an androgynous, innocent life form (20). Yet, E.T.'s environment obviously has some problems with this gender ambiguity. The very first question that little Gertie asks when she sees E.T. is, "Is it a boy or a girl?" Although E.T. *is* repeatedly associated with symbols of masculinity in the course of the movie, these attributes are quickly neutralized through a movement of infantilization. The glowing phallic finger, for example, does not represent a threat but offers a healing effect, standing for affection and warmth. E.T.'s voice is rather dark and coarse, yet also childlike and affectionate, suggesting both vulnerability and tenderness. These images can be seen as indicators for a tendency in Western culture that has been described as a hidden "longing for a third sex" (Uecker 124-135).

24 In the postmodern age - and here I return to Deleuze and Guattari's concept of a malleable identity -, such desires have taken on the form of a play with the possibilities of self-fashioning. This playful challenging of given boundaries encourages us to deconstruct the mechanical patterns of gender hierarchy. In the disorderly room of experimentation, new and potentially inexhaustible forms of identity constitution can be developed, tested and, if necessary, discarded. The "other" here no longer appears as an enemy, but as an integral

element of one's own identity. Notably, the technical term E.T. stands for both "extraterrestrial" and "embryo transfer." Analogously, postmodern subjectivity is not only flexible and volatile, but also transferable. E.T.'s alternative gender identity, we may conclude, will be transferred to the children who save him from the pursuers. Identity is no longer seen as something essential but more and more as a performative feature. It becomes, to rephrase Joan Riviere's famous concept from the 1920s, a masquerade. In a carnivalesque manner, postmodern discourse entices us into experimenting with preliminary identities, trying them out and eventually discarding them as if they were clothes in a supermarket.

The Astronautic Subject as Cultural Figuration

25 In her book *Nomadic Subjects*, Rosi Braidotti describes those women as nomads whose subjectivity is constituted on a temporary basis and whose thinking and actions resist established power structures. I want to take Braidotti's concept one step further and suggest the notion of "astronautic subjects" as an appropriate figuration for postmodern subjectivity. Following Braidotti, I use the term *figuration*[4] to point to a "politically informed account of an alternative subjectivity" (1). In her phrase, the concept refers to "a style of thought that evokes or expresses ways out of the phallocentric vision of the subject" (ibid). By using the figuration of the "astronautic subject," I delineate a form of unattached and independent identity constitution symptomatic of the individualizing tendencies in postmodernity. This highly expressive mode of self-constitution does make use of existing codes of behavior; yet, it distorts and disseminates the signs attached to such strategies beyond recognition. Astronautic identity is nomadic in the sense that it avoids a recognizable affiliation with cultural norms and standards. However, in contrast to nomadic identity, it lacks an awareness of the full possibilities and the exact outcome of the exploration. The astronautic subject embarks on a voyage in which the geographic range and the dimensions of this transformative process are not predictable. Components of "astronautic identity" can be found, for example, in the actual lives of cosmopolitans and transsexuals. German filmmaker Monika Treut has made use of the motif of the astronaut in her film *Gendernauts: A Journey Through Shifting Identities* (1999), which deals with transsexuals living in the San Francisco Bay Area. On the

[4] In social science, the term *figuration* is usually deployed to denote a social network of mutually dependent individuals. As Norbert Elias explains in his introduction to sociology, a figuration is marked by a nexus of power structures. In Braidotti's adaptation of the term, the imaginative function of a *figuration* becomes much stronger. Whereas Elias concentrates on the element of power maintenance in social *figurations*, Braidotti underlines the utopian quality of the term, signaling a path for a development of new power structures. I want to express my gratitude to Renate Kroll for pointing out to me the relevance of Elias's text.

official website for the movie, we are informed that this is "a film about cyborgs, people who alter their bodies and minds with new technologies and chemistry."[5]

26 Astronauts are often depicted in Western cultural imagery as postmodern migrants, independently traveling or rather floating towards new territories. While the motif of the nomad evokes a clear-cut and manageable range or radius in which the individual operates, astronauts are faced with the task of conquering, interconnecting, and traversing new galaxies. Astronauts are travelers not only in space but also in time. Instead of remaining within the geographical limits of cultural affiliation, the astronaut is searching for "the final frontier," to quote the opening lines of the original *Star Trek* series. The starship Enterprise, the narrator tells us, sets out to explore "strange new worlds, to seek out new life and new civilizations, to boldly go where no man has gone before." Since the 1960s, central parameters of astrophysics have been integrated into the postmodern imagination. Galaxies - this is a key thesis of modern space research - are not singular or homogeneous objects, but agglomerations, complex structures with unstable limits and a heterogeneous distribution of mass in relation to time and space. The postmodern subject has recognized in the metaphor of the "new frontier" his and her own situation, which is equally marked by a multiplication and complication of life worlds. Due to fundamental changes in the ideological and social fabric of society in the course of the 20th century, the postmodern individual learned to make adaptability part of his and her body scheme. The result of this development is, as Susan Bordo has demonstrated, a type of "postmodern body" that builds its self-conception on a logic of constant transformation and assimilation:

> [T]he postmodern body is the body of the mythological Trickster, the shape-shifter: of indeterminate sex and changeable gender […] who continually alters her/his body, creates and recreates a personality […] [and] floats across time, from period to period, place to place. ("Feminism" 467)

27 The image of "floating across time, from period to period, place to place," conjured up by Bordo, can equally be applied to the figure of the astronaut. In the image of the independent spacewalker, the components of spatial and temporal boundary crossing are represented in a condensed form. Like hardly any other mythological figure, the astronaut stands for the ideals of exploration and conquest of new territories. Comparable only to the courageous settler in the early phases of the westward movement, the space pioneer epitomizes the aspirations and yearnings of the American quest. Western cultural imagination

[5] See http://www.hyenafilms.com/index.php?option=com_content&task=view&id=23&Itemid=35&lang=english

has found the ideal expression for this belief in Neil Armstrong's famous words, articulated after he first set his foot on the moon: "That's one small step for man - one giant leap for mankind." The astronaut in this imagery is not only a rugged individualist. Moreover, his masculinity is a model for humanity itself. Such gendered ascriptions were confirmed in the Sixties and Seventies with the medial presence of spacemen such as Neil Armstrong und John Glenn. It was not until the Eighties that, with female astronauts like Sally Ride and Judy Resnik, a more diversified image was established. In the past twenty years, the figure of the astronaut has not only feminized visibly, it also become more "androgynous." The term "androgyny" is explicitly used by NASA experts to signify a need for balance and harmony during space expeditions. A recent study published on the official homepage of NASA, titled appropriately "Living Aloft: Human Requirements for Extended Spaceflight," contains the following statement:

> [A]ndrogyny appears highly desirable for astronauts, for a strong instrumentality combined with interpersonal sensitivity should be associated with both task accomplishment and social harmony. (9)

Androgynous personalities, the study concludes, are endowed with positive self concepts and the ability to develop satisfying interpersonal relations. By "androgynous personalities," the scientists define individuals of either biological sex who are capable of performing different social roles in everyday practice in space. "Androgynous crewmembers," the scientists claim, "may have the value of increasing social variety within a crew" (ibid). The question of a transformability of traditional gender roles raised in the NASA report touches upon a number of issues situated in the nexus of social and cultural practice. To the extent that the boundary lines within our imagination are altered, the figure of the mythological boundary crosser, too, becomes multi-layered.

The Cyborg as Icon of a Post-Gender World

28 This development is already foreshadowed in the conception of the astronaut as a cyborg, intimated in D. S. Halacy's 1965 study. Donna Haraway's approach, developed twenty years later, makes this parallel even more obvious. In her words, the cyborg is always a social construction, "a creature of social as well as a creature of fiction" ("Manifesto" 149). A cyborg is defined here as a postmodern hybrid who has internalized the settings of a technological culture into the bodily sphere. According to Haraway, we have all become cyborgs, integrating contact lenses, pacemakers, and implants into our bodily sphere. By effectively combining technological and organic features, the cyborg transgresses the limits of conventional identity. Like the astronaut, the cyborg has to be regarded not as a homogeneous

entity, but rather as a fragmented set of possibilities, "a kind of disassembled and reassembled postmodern collective and personal self" ("Manifesto" 164). As such, he/she participates in a constant "border war" fought over the validity of traditional values and the legitimacy of new ones. Since it draws upon the permeability and transgressiveness of boundaries, cyborg identity is constantly changing, fractured and reconstituted anew (Balsamo 32). These components - namely, the continual transformation, refracturing, and re-assembling of identity - cast a characteristic light on the conceptualization of the astronaut as a cyborg figure. To see the space traveler as a cybernetic organism implies a secret recognition of the dangers underlying the concept, especially the instability and potential disintegration of astronautic identity. At the same time, however, this ambiguity also makes the concept of the astronautic cyborg so usable for a discourse on postmodern subjectivity.

29 The questioning of gender hierarchies is an elementary pattern in the cyborg's world perception. After all, the cyborg is, in Haraway's phrase, "a creature in a post-gender world" ("Manifesto" 150). In cyberfeminism, the emancipatory potential of this approach is utilized to develop new modes of identity constitution. Cyberspace, Zoë Sofoulis argues, offers ideal opportunities for an interconnection and merging of identities.

> [T]he future is unmanned, that is, neither dead or collapsed, but animated by other dynamic agents, including women and machines. From the perspective of cyberfeminism […] the question is not one of dominance and control of or submission and surrender to machines, but of exploring alliances and affinities, co-evolutionary possibilities. (63)

The cyborgization of the individual thus represents the transformation of our life-world. Sherry Turkle has cogently shown in *Life on the Screen: Identity in the Age of the Internet* that identity is used by many users of the World Wide Web as a highly decentered and multi-layered feature. As digitalized cyborgs we are no longer limited to one territory, but we become boundary crossers between the galaxies. The Internet offers us, in Sandy Stone's words, a "charged, multigendered, hallucinatory space" that we actualize through immersing into what she calls "the cybernetic act" (91). "To become the cyborg, to put on the seductive and dangerous cybernetic space like a garment," Stone claims, "is to put on the female. This cyberspace both *disembodies* […], but also reembodies in the polychrome, hypersurfaced cyborg character of the console cowboy" (ibid). In the figure of the cyborg, we discover our own predicament as postmodern subjects, being equally torn between the temptations of self-empowerment and the restrictions of ideology. In her introduction to *Cybersexualities*, Jenny Wolmark argues that this ambiguity lies at the very heart of the cyborg concept, bestowing it with both an affirmative and a subversive quality:

> By its very nature, the cyborg is a contradictory boundary creature: on the one hand, it is the product of the masculinist technologies that, in the 1980s, sought to produce a so-called defensive Star Wars weapon that had every possibility of leading to some kind of final apocalypse. On the other hand, because it is a hybrid creature, the cyborg marks a refusal to sustain the very dualisms that structure existing relations of power and control within science and technology. (4)

30 As a literary and cinematic figure, the cyborg is gendered, disgendered, and regendered, thereby reaching an almost absurd level of ambiguity. The symbolic challenge of the cyborg concept lies in the fact that we have to visualize an imaginary unity that resists logical reference. Born and raised in the Western cultural hemisphere, we are used to allocate the signs of cultural imagery to a clear-cut system of references and meanings. Floating signifiers necessarily pose a problem (and a threat) to any form of dichotomous and Manichaean thinking. The cinematic characters in the science-fiction classic *Forbidden Planet* (1956) are confronted with a similar dilemma: When the crew members meet the speaking robot Robbie for the first time, they cannot specify its sex. "Hey, Doc, is it a male or a female?" the cook thereupon asks the board physician. The answer comes from the robot itself: "In my case, SIR, the question is totally without meaning." Later in the film, the creator of Robbie the Robot, an evil genius named Dr. Morbius, reveals to the scientists that he has modeled the automaton on images of his own wife. The feminization of the robot becomes especially obvious in a scene when Robbie takes the role of a housewife, entertaining the guests and pouring coffee in their cups. Faced with the robot's household skills, one male crew members exclaims with delight, "I thought Robbie had managed very charming feminine touches." Significantly, the characters are only able to position the robot within the symbolic order when they make use of the traditional dualism of feminine vs. masculine. It is only under these auspices that the identity of the cyborg can be deciphered and rationalized.

The Mechanics of Engenderneering

31 The usual pattern for the literary and cinematic construction of cyborg characters is the following: At first, there is a semiotic openness, which is later dissolved in favor of clear demarcation lines. In this process, the machine is endowed not only with sexuality, but also with a clear function within the gendered patterns of social practice. Roy Schwartzman has described this process of a gradual transformation of robotic identity in cyborg fiction as *engenderneering*. The term is defined by Schwartzman as "personification with a twist: the investiture of non-human entities with a gendered identity" ("Mechanics" 1). The act of *engendeneering* is necessarily an ideological operation, comically integrating the cyborg into an environment that tends to regard it as an abject creature. Due to the bizarre and almost

carnivalesque nature of this transformation, the engendeneered object also serves as a reminder for the viewer of how such processes are structured. The robot's unwilling appropriation as a gendered "person" illustrates both the arbitrariness and the absurdity of such procedures.

32 The astronaut in the sci-fi genre finds himself placed in a similar dilemma as the cyborg: Clad in a unisex suit that defies attributions regarding gender and sex, the astronaut is grotesquely engendeneered by ideological discourse. In the course of this re-semantization, the initial innocence of the spacewalker becomes abandoned for the sake of bizarre ideological inscriptions which delineate the figure as a penetrator of the universe. The astronaut's actual sexlessness or asexuality, Vivian Sobchack argues in her essay "The Virginity of Astronauts," is concealed by an aura which is coded as both masculine and technological:

> [W]hether named Buzz or Armstrong, Buck, Flash, or Bowman, our public astronauts reek of locker-room camaraderie, but hardly of male sweat or semen. As if in training for the big game, they have rejected their biology and sexuality - pushed it from their minds and bodies to concentrate on the technology required to penetrate and impregnate not a woman, but the universe. ("Virginity" 108)

Sexy Galaxies: Gender Bending in Science-Fiction Parodies

33 In this context, we have to mention the conspicuously "camp" element of contemporary science fiction. Comical distortion of traditional genre components has been a popular strategy since the early days of sci-fi films. In the meantime, many classics have been turned into spoofs, making fun of the hypermasculine settings of the originals. Examples include the *Austin Powers* trilogy, which shows us phallus-shaped rockets and children's toys functioning as giant spaceships, and the German Star-Trek parody *Starship Surprise*. In the opening lyrics for the cult film *Rocky Horror Picture Show*, sung by Richard O'Brien, this hilarious aspect of 20th century science fiction is articulated in the famous lines, "Science fiction, double feature, Doctor X will build a creature. Androids fighting Brad and Janet, Anne Francis stars in *Forbidden Planet*." Later on, the song makes reference to the infamous Flash Gordon movies from the late 1930s, "And Flash Gordon was there in silver underwear," ridiculing the courageous explorer as a flamboyant sex object. The title song "Science Fiction / Double Feature" anticipates the comical plot of the movie that revolves around a couple of aliens from the planet Transsexual in the "sexy galaxy of Transsylvania." The ambiguous touch of American science-fiction movies is exposed here to the point of total deconstruction. The image of the heroic adventurer in space is debunked as a mere joke.

34 In the American cartoon series *Futurama* created by Matt Groening in the late 1990s, we find a similar mocking of existing clichés concerning the male space traveler. One of the main characters of the TV-series is the robot astronaut Bender who travels through space together with his friends Fry and Leela. The name *Bender* is already informative, standing for someone who undermines existing boundaries and norms dictated by the cultural hegemony. In the episode "Raging Bender," the character is discovered as a new talent by the manager of a wrestling foundation after unintentionally smashing another robot's electrodes. From that moment on, Bender climbs into the ring as "Bender the Offender." In the course of events, he even volunteers to fight in women's clothes, literally transforming into a "Gender Bender," which also becomes his new nickname in the ring.[6] As the epitome of the astronautic cyborg, the Bender figure ironically resists social conventions and constraints. The act of continuous change and mutation - what is called "bending" - is a crucial feature of astronautic identity. Boundaries are almost superfluous in this imagery. Limitations are rather marked as relics of an old structuring system which is still obsessed with power maintenance but has long become obsolete.

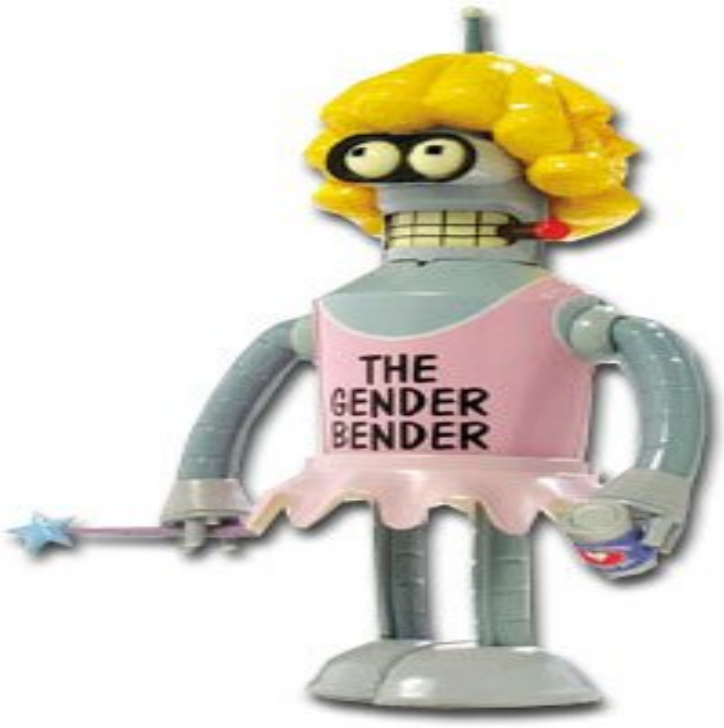


Fig. 10.

[6] *Futurama*'s Gender Bender was quickly discovered by the American toy industry. On a marketing page on the internet, the doll can be purchased for $27.95 The caption describes the toy, in a mixture of irony and serious appeal to *Futurama* fans, as "that pink clad princess of the ring, that tin terror in a tutu, that gladiator with the golden curls - The Gender Bender! The robot you love to hate is ready for some action! Gender Bender comes packed in a matching pink and blue box and even has a matching wand. You can't resist his charm!" See http://www.emerchandise.com/product/COFTR0004/s.M2kYsUGK.

Conclusion: Burning Bridges

35 The genre of science fiction offers consumers an ambivalent image of identity. Whereas some texts are exaggerated or comical, others make a genuine attempt to re-fashion the ideological patterns of Western thinking. In any case, there is more than just one function to this diverse genre: Neither is it meant for entertainment purposes alone, nor is its single goal self-empowerment, or even subversion. Even the more "progressive" science-fiction texts are often based on an ambiguous premise: While pointing to the possibility of fundamental changes in society, they are also loaded with concessions to hegemonic culture, often culminating in a hidden affirmation of existing structures. This applies in particular to the processes of gendering, disgendering and regendering in utopian fiction. It is left up to the audiences who consume these texts if the search for a gender-free space can continue on a more pragmatic level or if it remains an illusion. As Treut's film *Gendernauts*, among others, has suggested, there are numerous structural analogies between utopian fiction and social reality - analogies which can be instrumentalized and "acted out" by citizens and consumers (no matter of transsexual, multisexual, or metrosexual) every day. The postmodern individual is especially inclined to make use of such connections in order to break out of the perceived ghetto of social constraints and find self-affirmation. In the age of expressive individualism[7], such attempts have to be radical and uncompromising in nature. The affinity of authorship and utopianism is at the heart of such creative operations. Marge Piercy's science-fiction novel *He, She, and It* (1991) offers a remarkable vision of a collective boundary subversion in the near future. Set in the mid-21st century in a place called Norika (actually the former North America - now a contaminated wasteland permeated by huge environmental domes), the novel encourages us to make use of existing structures of thought and organization to fundamentally change the path of progress. In the final passages of her tale, Piercy draws a connection between the act of creating science fiction and the manufacturing of cyborgs described in the book: Both the author herself and the characters participate in a "strange and instructive journey" (446), the outcome being not clear yet.

38 The astronaut is a crucial figure for a discussion of postmodern subjectivity. Like the cyborg, he/she seems to resist stable inscriptions, being endowed with a sense of autonomy

[7] Winfried Fluck uses this term to describe the fundamental transformations in values that occurred in postmodern societies between the mid 60s and the late 70s. "The culture of expressive individualism," Fluck explains, "is not primarily concerned with a social rise to respectability but with the possibility of self-realization" ("Cultures" 216). Marked by the desire to find gratification and self-empowerment at almost any cost, expressive individualism implies components of radical behaviour as well as a tendency to "outradicalize" others. In its willingness to "burn bridges" and break new ground, the astronautic subject stands in the tradition of expressive individualism, participating in a virtual contest over the most innovative and most satisfying modes of self-fulfillment.

that detaches his/her body from patterns bound to a certain time or location. The astronaut is clearly marked as a creature of future times, an inhabitant of territories not yet discovered. Unlike the nomad who, in Braidotti's phrase, "blurs boundaries without burning bridges," the astronaut *does* burn bridges. The astronautic subject is not only a mythological explorer of new terrains; moreover, he/she is a composite creature, meandering between both genders and traveling between the realms of social practice and utopia. Most importantly, the concept evokes a figuration of overcoming the traditional dualisms of mind and space. As astronautic subjects, we are courageous enough to enter new spheres and independent enough to develop alternative forms of thinking - even at the risk of sometimes losing our sense of orientation.

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