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The Pinocchio Syndrome: Revisited

Introduction

In a previous paper, I explored the Pinocchio syndrome and the prosthetic impulse, focusing on Data and the Borg in Star Trek: The Next Generation. I described “the Pinocchio syndrome” as the urge for nonhuman beings to become human, while I followed Smith and Morra to identify “the prosthetic impulse” as the urge for humanity to augment mind and/or brain, using biological or mechanical augments.

The desire to become human is a multibraided wish, and includes not only the yearning to attain a biologically human body, but also mental and psychological aspects. These include the desire to acquire “qualia,” that is, subjective conscious experiences (Lewis 121), the expression of intentionality which implies the ability to truly understand and comprehend and react to surroundings and stimuli, as humans do (Searle 26–27), and an application of Abraham Maslow’s motivational pyramid, with a desire for self-actualization that embraces the desire to attain humanity (Maslow 20, 39, 43, 45–6).

A much wider reading of the Pinocchio syndrome within the genre shows that sf’s reiteraton of the desire to become more human or fully human is incredibly hubristic. It emphasizes a extraordinarily naive and humanistic viewpoint that almost certainly cannot be shared by nonhuman beings whose abilities may not only differ from humanity’s, but may also exceed them, both physically and mentally.

The history of prosthetics is ancient, as evidenced by the first known prosthesis, an artificial big toe dating from 1069 to 664 BCE (Nerlich et al.). Prostheses in sf are used to attain posthuman or even transhuman levels of existence. Such makeovers abound in sf narratives, for example, E. C. Tubb’s Dumarest saga includes the “Cyclan,” who constitute the villains in a total of 32 novels published from 1967 to 1997. The storyline is set in the distant future. The Cyclan are surgically altered human beings who are completely emotionless (and unable to have sex) so as to be better able to think logically. They also possess the ability to link minds with previously living Cyclan whose brains are preserved by the group. The Cyclan are willing to sacrifice any individual or group of individuals in pursuit of their goals.

Androids and other sentient manufactured beings feature frequently in sf and some definitions would be helpful at this juncture. An android is an artificially created being that resembles a human being. The word derives from Greek andreus, “man or human” and the suffix -eidēs, from eidos, “species.” A robot is an entirely mechanical being, and a cyborg is an organic being that is mechanically and prosthetically enhanced. In the literature, the term android has been used to denote numerous different creations including robots, cyborgs, or artificially created organic beings that closely resemble humans. Androids derive from the marriage of two concepts: simulacra, devices that exhibit human likeness, and automatons, devices that exhibit independence. The term was first used by Mathias Vilia de l’Isle-Adam (1838–89) in his work Tomorrow’s Eve (1886), featuring a mechanical robot.

This terminology is ambiguous and overlapping, and for example, the robots in Capek’s R.U.R. (1921) are actually organic artificial humans. “Rossumovi UmělíRoboti” is Czech for “Rossum’s Artificial Robots,” but is usually translated into English as “Rossum’s Universal Robots” in order to preserve the acronym. (In the original Czech, roba means drudgery.) Robots began to feature increasingly in sf with the formalization of the concepts embodied in Norbert Weiner’s seminal Cybernetics: Or the Control and Communication in the Animal and the Machine (1948).

It is worth recalling at this stage that “the robot and its ancestors and relatives have been used—at least since Mary Shelley’s Frankenstein—as a figure for collective anxieties about the dangers of science and technology” (Fitting, “Futurecop” 341). Asimov, however, popularized and de-monstered robots with his “three laws of robotics,” divorcing the robot from the popular pulp concepts of the latter-day equivalent of Frankenstein’s monster, apt to run out of control at the slightest excuse (Fitting, “The Modern” 60).

Texts

The simplest depictions are modern versions of the Pinocchio fable itself, aimed primarily at the children’s market. For example, Pinocchio 3000 (2004) is a computer-animated film in which Pinocchio is a robot who is given life and sentience by tapping into a city’s electricity grid, a classical Suvanian embodiment of cognitive fiction (“On the Poetics” 372), as opposed to the original story wherein the puppet was animated by magic. More realistically, a robot boy in The Adventures of Elektronik (1980) is lured by a human child into replacing him at school and at home, liberating the human child, who eventually realizes that the robot may eventually completely replace him. The robot then expresses a desire to become human, in contrast with the human boy who envies his abilities.

Similarly, Osamu Tezuka’s manga Mighty Atom (aka Astroboy) (1952) is a robotic child who is created by his father, a robot designer, in order to replace the son who has been killed in an accident, a theme that will be revisited. Astroboy expresses a more realistic opinion of his abilities, realizing that his superior powers allow him to achieve far more than mundane humanity can.

Interestingly, the mother figure is never mentioned or desired in any of these Pinocchio figures, but it features prominently in A.I.: Artificial Intelligence (2001) where a robot child is used to temporarily replace a biological child who is placed in suspended animation until a cure for his rare disease can be found. When this treatment becomes available, the robot is abandoned and seeks the Blue Fairy who, in the original fable, was able to transform puppets into children, as he believes this would allow him to return to his family. In these narratives, one cannot pin down the exact desire, physical or mental/psychological, for becoming more human.

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A more complex depiction is shown in Isaac Asimov’s “The Bicentennial Man” (1976) which features a robot called Andrew who is created slightly flawed, leading to his development of artistic and creative tendencies, as well as self-reflection. Andrew becomes more than a simple family servitor; he becomes a confidante and trusted friend, although his initial encounters with the family who retain his services are often gauche.

Over the course of two centuries, Andrew invents numerous prostheses which he tests on himself. Thus, he deliberately and progressively converts his body and appearance from the mechanical to the biological, a reverse “prosthetic impulse,” highlighting the point already made that the acquisition of biological prostheses goes in tandem with the desire for qualia, as despite possessing an error-free computer brain, Andrew desires “certain features of the bodily sensations especially, but also of certain perceptual experiences, which no amount of purely physical information includes” (Jackson 27).

This, however, does not convince the world government to recognize his pleas to affirm him as human in the legal sense, despite help from human friends, until he spontaneously decides to make the ultimate sacrifice, modifying his potentially immortal positronic brain so that that he dies at the age of two centuries. This act finally sways the authorities into declaring him human, implying that mortality is a prerequisite for humanity. In these ways, Andrew also exhibits intentionality but his desire to die is anti-self-actualization since his positronic brain is potentially immortal. Patricia Warrick’s reading of “The Bicentennial Man” affirms that “ethical behavior should extend to all systems because any organizational pattern—human or nonhuman, organic or inorganic—represents intelligence” (74).

In the Star Trek: The Original Series episode “Metamorphosis,” an immortal energy creature falls in love with a human male, keeps him alive and rejuvenated for hundreds of years, and on being rejected as an object for love, merges with a human female, giving up all abilities including immortality. Even her lover appears initially incredulous:

You gave up everything to be human? But even if you stay here, you’ll eventually die. . . . Well, I can’t just fly away and leave you here. . . . You saved my life, took care of me. You loved me. I never understood. I do now.

He kisses her, affirming his new-found love for her after her supreme self-sacrifice.

In the Star Trek universe, holographic technology also permits computers to reach sentience as human projections. These holograms can only exist within the artificial environment of a “holodeck,” a holographic and interactive theatre, wherein they possess not only form and appearance but also tangible physical bodies. These manufactured actors, if ever becoming sentient, inevitably express intentionality through a desire to leave the holodeck and enter the cut and thrust of human life, possibly experiencing qualia. This naturally occurs when they realize that they inhabit an imaginary world, an artificial bubble created solely for the benefit and entertainment of the ship’s crew. These sentient holograms begin with the re-creation of Arthur Conan Doyle’s Moriarty (“Ship in a Bottle”) and two gangsters (“The Big Goodbye”).

The “Emergency Medical Hologram” (EMH, aka “the Doctor”) in Star Trek: Voyager is one of the most complex characters in the series (“Caretaker”). The starship Voyager is stranded 70,000 light years away from Earth. The EMH is a superb physician, a highly sophisticated and extremely capable, computer-generated hologram, “programmed to perform more than five million medical procedures” (“Virtuoso”). He is designed to treat patients during emergency situations. Like Data, his appearance is based on his creator. The EMH initially lacks an appropriate bedside manner, a frequent source of complaint for the Voyager crew. However, this eventually ameliorates as his life experiences and complexity increase.

As the series progresses, like Data, the Doctor actively endeavors to develop a realistic human personality, demonstrating intentionality and self-actualization. He also widens his education beyond the medical by studying culture, thereby attaining bildung, as in the German tradition for self-cultivation, furthering personal and cultural maturation.

He attempts to accelerate this process in two ways. First, by creating an artificial holographic family (“Real Life”), and second, by developing character traits that he deems desirable onto his computer subroutines from historic figures. These include Gandhi and Byron (“Darkling”). Both attempts fail when simulated tragedy strikes his holographic family and when the darker and more negative aspects of the historic figures’ characters manifest in a Jekyll and Hyde manner, with the Doctor being intermittently taken over by an evil persona, a Hegelian tension that he eventually resolves. However, later in the series, he successfully self-creates a computer subroutine that allows him to daydream, and these dreams include grandiose scenarios which increase his self-esteem and the respect accorded to him by the crew, such as placing himself in command of the Voyager (“Voyager” (“Tinker”). Indeed, in several episodes, he actually saves the lives of the ship’s crew (“Workforce”).

Over the course of the series, the EMH attains talents as a playwright, artist, photographer, opera connoisseur, and writer, continuing to exhibit intentionality and self-actualization. However, the Pinocchio syndrome is not expressed by all holograms; Dejaren, a holographic crew member on a ship rescued by Voyager, vividly describes his feelings in a tirade to a biological humanoid:

You’re the one who’s trapped, not me. You spend your entire life stuck inside a biological cage of flesh and bone and blood. . . . I exist as pure energy, but you depend on food and water to survive. Frankly, I find it disgusting. . . . Look at you! Grinding up bits of plants and animals with your teeth, secreting saliva to force it down your esophagus into a pit of digestive acids. You can’t even stand to think about it yourself.

What a repulsive creature you are! Constantly shedding your skin and hair, leaving your oily sweat on everything you touch. You think that you are the height of intellect in the universe, but you are no better than any filthy animal and I am ashamed to be made in your image! . . . We don’t need nourishment, we don’t suffer disease. We’re the higher form of life. (“Revulsion”)

One recurring theme that repeatedly highlights the EMH’s efforts to become more human is his quest for a suitable name, as the default computer EMH program is unnamed. All of these events ultimately lead him to develop a convincing personality, with emotions and ambitions to boot. He develops mature, meaningful, and complex relationships with many members of the ship’s crew and says, “When I was first activated I was regarded as little more than a talking tricorder. I had to ask for the privileges I deserved. The right to be included in crew briefings, the ability to turn my program on and off. . . . I believe I’ve earned the respect of the crew as an equal,” continuing thus to display self actualization and intentionality (“Revulsion”). This includes the ability to fall in love and indeed, in an alternate future, the EMH is revealed to have married a human female (Crooker “Endgame”).

The doctor’s enhanced abilities are even recognized by his creator, who is cured of a fatal disease by the EMH, and who acknowledges, “You have exceeded the sum of your programming. You’ve accomplished far more than I would have ever predicted” (“Endgame”).

Andrew, Data, and the EMH therefore blur the very definition of humanity and what defines it. Androids further confuse this definition when they themselves truly believe that they are run of the mill, biological humans and have no inkling whatsoever that they are artificial constructs. The wife of Dr. Soong, Data’s creator, is such an individual, created by Dr. Soong himself in Pygmalion fashion, complete with real memories, as a replacement when his original wife died. When the Enterprise crew accidentally discover this, Data chooses not to reveal her true nature to her, deeming that it is more important for her to live a normal and happy life, believing herself to be human (“Inheritance”). This is prefigured by the original Star Trek episode “Requiem for Methuselah” (1969), wherein an immortal human strives to create an immortal android woman companion who initially does not know that she is an artificial construct, and on discovering emotions, her brain overloads, causing her termination.

This trope is most famously explored in Ridley Scott’s Blade Runner.
Superhuman aliens may also unwittingly be given human status. Star Trek’s Vulcans are stronger than humans and have better trained minds than humanity. But Spock, for example, in Meyer’s Star Trek II: The Wrath of Khan, is eulogized by Kirk: “Of all the souls I have known, his was the most human,” a reversal of Spock’s desire to purge himself of all emotion, to the extent of attempting to undergo the “Kohlinar,” a Vulcan ritual which purges all emotion, leaving the participant operating solely on pure logic, as attempted by Spock himself in Star Trek: The Motion Picture. However, Spock is brought back from the dead and eventually becomes leavened with humanity, as evinced during a discussion with another young Vulcan: “all things end. . . . the universe will unfold as it should. . . . Logic? . . . Logic is the beginning of wisdom, . . . not the end” (The Undiscovered Country).

The inverse of the Pinocchio syndrome, the prothetic impulse in sf, is arguably best exemplified by the Borg. They are the seekers of a monstrous perfection through the assimilation of one and all into an insect-like collective, utilizing machine and technology in extreme cyborg transformations that go beyond Marcusism, thereby thoroughly repudiating the Pinocchio syndrome.

Star Trek: Voyager depicts an adult human female with the Borg designation “Seven of Nine,” who had been assimilated by the Borg as a child. She is recaptured by the Voyager crew and is gradually divested of her Borg prostheses, thereby slowly but surely regaining her humanity. Indeed, the series serves as a bildungsroman, an “education novel” that documents Seven’s coming-of-age, with psychological and moral growth that allow her to reacquire compassion. While the comfort of the hive mind is lost, Seven also retains some of her Borg aptitudes, such that her only partial human transformation leaves abilities that are often put to good use as the series progresses.

Aid is required in the thorny path to humanization and this is ironically provided by the EMH, who gives Seven tutorials in dating, romance, and interpersonal relations, a surprise to the Voyager crew, as one crewmember remarks in derision to the EMH: “You’re teaching Seven how to date? Ha! Talk about the blind leading the blind” (“Someone”). The EMH and Seven further interact when the EMH program is temporarily uploaded into Seven, allowing the EMH to temporarily fully experience sensory stimuli, thereby also finally experiencing qualia (“Body and Soul”).

Superheroes occasionally express transient wishes to lose their superpowers and become human. In Superman II (Lester, 1979) Superman decides to transform himself into a mundane human by exposing himself to red Kryptonian sunlight in a crystal chamber, against the wishes of his mother, who is represented by an artificial intelligence. By giving up his vast powers, he feels that his romance with Lois Lane is more likely to blossom. However, after spending the night with Lois, Superman discovers that supervillians threaten to take over the world and he deliberately regains his powers in order to add to the moral growth that allows him to fight the situation, and thus sacrifices his relationship of equals with Lois.

C. L. Moore’s “No Woman Born” (1944) is one of the first references to cyborgs in the sf literature, and the story’s protagonist is a beautiful, world-famous dancer whose body is destroyed in a theatre fire. Rescue workers manage to salvage her brain, which is then transplanted in a potentially immortal metal body. Naturally, the resulting personality remains intact while functioning at computer speeds, having achieved “cybernetic immortality” (Potts 104). The story then focuses on the protagonist’s wish to regain humanity, her adaptation to the new body, and questions of self: is the central character still a woman, and how long can we defer death and still remain “human?” (Lec 170).

Anne McCaffrey’s The Ship Who Sang (1969), “explores the consequences of a cyborg, a hybrid of girl’s brain and complex machinery, formed after the birth of a severely handicapped child. Gender, sexuality, embodiment, skill: all were reconstituted in the story” (Haraway 178). This child is a result of toxic environmental conditions that lead to a high birth incidence of children with severe physical handicaps and intact brains. Stunted babies are placed in mechanical shells for the training of complex technical tasks, and the brains are then transplanted at adolescence into machinery. In this story, a female brain running a spaceship falls hopelessly in love with a
normal human male, and the situation is only partially resolved when the male companion is permanently partnered with the female ship as its sole crewmember. In the latter half of the Shirow Masamune (1989) McCaffrey depicts the male partner offering to acquire an android female body for the ship for the purpose of sexual recreation during space trips.

In the Japanese manga series Full Metal Alchemist, “homunculi” are deceased humans who are brought back to life, immortal but emotionless. These Homunculi express the desire to regain their humanity so that they can once more feel emotions (Araoka). Similarly, in the Operation Overdrive: Power Rangers episode “Things Not Said,” one of the Rangers displays superhuman strength and a perfect memory that can also be accessed by computer. He eventually finds out that he is an android, and instantly expresses a desire to become human. During the series, he deliberately puts himself into greater danger than the other Rangers in his belief that his life is worth less than that of the other, human Rangers. He is eventually transformed by alien technology into a human being in the final episode of the series.

The Cylons in the 2004 version of Battlestar Galactica are humanity’s enemy, originally created by humanity as servitors, but who rebel and rely heavily on bio-engineering rather than cybernetic technology, to the extent that they design themselves to reproduce in the human way rather than by building new copies (“Deadlock”). And finally, in Stargate Atlantis, “ascension” is a highly sought after process that allows sentient beings to ascend to a higher plane of existence that consists of pure energy. Replicants, a group of sentient machines, discover that ascension is only possible for mortal beings, and they therefore set out to become human (Woeste “Maternal Instinct”).

Discussion

This survey shows the Pinocchio syndrome in sf consists of mixed desires: the possession of a biological human body, intentionality, and the desire to be subjected to qualia. Since most of the beings who articulate this desire possess physical and/or mental powers that are beyond those of mere humanity, this yearning represents a reverse self-actualization, a negation of the apex of Maslow’s pyramid that would result in the premeditated rejection of superhuman abilities. The Pinocchio syndrome is therefore an illogical and excessively anthropocentric extrapolation of nonhuman behavior.

This reading also shows that not all nonhumans desire the state of humanity, as evidenced above. An even more clear-cut portrayal is in Clifford Simak’s “Desertion,” wherein both a man and his dog express disinclination to be altered back into their original forms after being metamorphosed into inhuman Jovian “lopers” (Grec). This outright rejection of the Pinocchio syndrome is a far more likely outcome. While “[o]ur lack of knowledge is no argument against the consciousness of Commander Data” and similar creations (Block 416), if it is assumed that nonhuman beings also seek self-actualization (and this too may be an unjustifiable conjecture), then any deliberate abandonment of inhuman/superhuman abilities also would lead to a new discontent and restlessness, . . . unless the individual is doing what he, individually, is fitted for . . . if he is to be ultimately at peace with himself. What [he] can be, he must be. He must be true to his own nature, . . . desire for self-fulfillment, namely, to the tendency for him to become actualized in what he is potentially . . . the desire to become more and more what one idiosyncratically is, to become everything that one is capable of becoming. (Maslow 46)

The Pinocchio syndrome is also a manifestation of an outright declaration for humanism. The specific philosophical flavor is that of the secular humanist-rationalist which focuses on human values and concerns, a Nietzschean rejection of anything supernatural and all religious dogma, while embracing reason, ethics, and justice. This outlook within the genre was immeasurably strengthened by two individuals, John W. Campbell and Gene Roddenberry.

Campbell (1910–71) was “the most powerful force in science fiction ever, and for the first ten years of his editorship he dominated the field completely” within the pages of Astounding Science Fiction (Asimov 73). He was an intelligent and opinionated man whose technophilic magazine shaped the so-called “Golden Age” of sf. It embodied the Nietzschean science-fiction/techno-scientist/engineer heroes who solved problems with technological utopian optimism.

Roddenberry (1921–91) was an overt humanist, a member of the American Humanist Association. His Star Trek has been with us since 1966, with a total of 735 hours of viewing time. He referred to the series as “my social . . . racial philosophy, my overview on life and the human condition” (Alexander 18). Roddenberry’s values are expressed repeatedly in the series and emphasize the concepts of voluntary cooperation, non-violent conflict resolution, the right to self-defense, dignity and respect for all life forms, the absence of the imposition of dogmas and doctrines, and the reliance on science and reason in the search for truths, while enjoying human emotions, spirituality, and intuition (Alexander 18). Roddenberry correctly believed that he could reach far more people through the media than a conventional philosopher or even a conventional sf author (Alexander 18).

It was through the efforts of these and other like-minded authors and editors that a junk form of pulp entertainment became genuine literature embraced by the academy. Humanism was strengthened by budget-conscious movies and television series, since it continues to be simpler and cheaper to make up humans as aliens rather than to create truly alien aliens. Thus, the visual media unintentionally impart a sense of anthropocentrism as virtually all protagonists, including aliens, are human actors. The series therefore perpetuates “myths developed from the Enlightenment humanist project centered on an ideal of Man. Men’s project of rationalizing nature” (Tudor 416–7). This also incidentally results in the rejection of the Pinocchio syndrome’s opposing movement, the prosthetic impulse, which used to portray a warning against the too-trusting and excessive embracement and internalization of techné.

Tales that depict the Pinocchio syndrome therefore function as cautionary tales, admonishing the uptake of the ultramodern, which may degenerate into the “postmodern . . . an aesthetic of decay, exposing the dark side of technology, the process of disintegration. Next to the high-tech, its waste. It is into garbage that the characters constantly step” (Bruno 63).

These tales also reveal yet another aspect of the genre. SF has replaced the fairy tale and the myth. Superhuman beings in sf demonstrate that “[a]ll that is required is a scary monster. How the monster came to be or where it came from is, if not irrelevant, peripheral” (Schede 2). Moreover, such beings may stand in as metaphors for “creatures whom humans need to befriend or do battle against in order to keep their own distinct domain, that is, culture, intact. The battle is between the raw power of the ogres and trolls and the ingenuity and inventiveness of humans: science and technology” (Schede 3).

Finally, sf cautions against a possible pitfall, humanity’s potential assimilation of nonhumans as humans due to an inability to detect simulations and simulacra, since with increased cybernetic complexity, it will be possible for machines to simulate humanity, to the point where they will also deceive themselves, believing themselves to be human, such that “technology itself can become human” (Sims 84). Such simulations may include not only manufactured beings but also individuals who become more humanlike.

Baudrillard clearly warns against our deception by artificial beings, since “[t]he unreal is no longer that of dream or of fantasy or a beyond or a within, it is that of hallucinatory resemblance of the real with itself” (142).

Conclusions

This wider reading of tales that depict the Pinocchio syndrome emphasizes the findings of earlier papers that focused on the Pinocchio syndrome in Star Trek as presented by Data, and his direct conflict with the Borg Queen as the supreme representative of the prosthetic impulse. This reading reaffirms that the Pinocchio syndrome is all too often depicted as an exaggeratedly anthropocentric concept, culminating as a reversal of self-actualization, with the negation of the apex of Maslow’s motivational pyramid. In addition, the Pinocchio syndrome has been exposed as an outright declaration for secular humanist-rationalism. Furthermore, these narratives carry
a cautionary message, warning against an over-enthusiastic acceptance of prostheses and other exaggerated bodily enhancements. Moreover, these narratives reify and replace ancient monsters with superhuman beings who express the unlikely desire to attain humanity. And finally, these tales caution against humanity’s inadvertent acceptance of the nonhuman as human.

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Works Cited
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