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Review Article



The Pygmalion-Galatea myth in relation to simulation scenarios in Star Trek

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Abstract. Star Trek has existed since 1966, with a total of 738 hours of viewing time. Like most science fiction, the series frequently alludes to religion or myth but censors such references for the modern world-view by sanitising them with scientific or scientific-sounding explanation. This paper illustrates the depiction of the Galatea-Pygmalion myth in the franchise and relates these to simulation scenarios.

1 Introduction

Star Trek (ST) has been with us since 1966, and comprises a vast corpus of works that include twelve films and six series (one of which is animated). This has resulted in a total of 738 hours of viewing time.

Naturally, due to the sheer number of episodes and movies, a tremendous variety of narrative plots have been invoked. These often directly or indirectly allude to religions and myths. However, all such occurrences and references are sanitised with scientific references and explanations, so as to somehow fit in with the modern world view. This viewpoint eschews scenarios that are devoid of rational explanations, such as enchantment and magic.

Darko Suvin defined the science fiction (SF) genre as "the literature of cognitive estrangement", wherein there is the addition of one or more futuristic and scientific elements or premises to narratives. Suvin referred to this as "a strange newness, a novum" (Suvin, 1972). For these reasons, SF is often encouraged by teachers as a means of generating interest in science (Dubeck et al., 2004).

Correspondence to: V. Grech (victor.e.grech@gov.mt) (C) 2013 Xjenza Online ST accedes to this notion by attempting to explain future scientific advances leading to the seemingly impossible. Typical examples include travelling faster than light and other technological miracles, thereby eliciting a sense of wonder.

In all of these ways, the franchise provides an interface between literature and other metanarratives, such as the sciences. Indeed, entire books have been written on the physics portrayed in ST (Krauss, 1995). Thus, and to quote just one example, the notion of the instantaneous matter transporter has been explored in extensive depth. This investigation details accidents that ST has documented resulting from the utilisation of such exotic technology, the physics of the reality of what the usage of such a device would entail and the Lockeian concept of physical continuity (Grech, 2011).

John Locke considered personal identity and selfhood to be caused by consciousness and memory and not by the body or the soul. Locke insisted that personal identity is a matter of psychological continuity and that each one of us is born as a blank slate, a *tabula rasa*. We are then shaped by experience, and our identities are defined by our continued consciousness. This is the view adopted by the series, a Lockeian perspective that allows consciousness to be transferred into different vessels (Locke, 1869). Spock, the Enterprise's science officer, directly alludes to this when he discovers that Captain Kirk's consciousness has been displaced into a female body by exotic alien technology: "whatever it is that makes James Kirk a living being special to himself is being held here in this body" (Wallerstein, 1969).

Many other branches of knowledge are invoked in ST, and a few examples including philosophy (Grech, 2013a), metaphysics (Grech, 2013b), psychology (Grech, 2012a) and questions about the very nature of what it is to be human (Grech, 2012b). Like the physics of ST, several of these have also been explored in book length.

For example, philosophy in ST has been reviewed comprehensively, demonstrating that this branch of knowledge shares much with SF in general: the same fundamental purpose of exploration, a relentless roaming of the universe in an attempt to chart and understand our place and purpose within it (Eberl and Decker, 2008).

The related field of ethics in ST has also been scrutinised, establishing the myriad ways in which this franchise (which has become an integral part of popular culture) has engendered sophisticated discussions of ethical theories within episodes. These include virtue ethics (such as ethical reasoning), religion and Christian ethics, Stoicism, and ethics related to notions of duty. Other viewpoints are also outlined, such as logic and utilitarianism, hedonism and existentialism, thereby enlivening episodes while imparting fruit for thought (Barad and Robertson, 2000).

This is arguably one reason why the franchise has endured these many decades, since most of the stories are morality tales, moral fables that have been sanitised by science so as to make them suitable for the contemporary climate.

It has also been shown how ST, despite its attempt to stand on the high ground afforded by science and logic, borrows heavily and continuously from culture. The episodes characters therefore seek artistic expression, the listening to and the actual performance of classical music, and the frequent use of literary quotations and graphic images that directly accede to the humanities (Kreitzer, 1996).

This paper will illustrate the way in which ST renarrates myths, through the artifices of science through one specific example. The method will be the evaluation of the different ways in which the Galatea-Pygmalion (GP) myth has been depicted in the franchise.

This ancient Greek myth was penned by Ovid and describes Pygmalion, a Cypriot sculptor who was unimpressed by his fellow countrywomen. These ladies had denied the divinity of Venus and were punished by being reduced to prostitutes.

Pygmalion therefore created a statue of a woman, an inanimate creation that was more beautiful than any living woman. Pygmalion fell in love with the statue and prayed to Aphrodite for a woman as perfect as his own artifice. The goddess of love eventually pitied him, granted his wish, animated his statue and they went on to have a daughter (Hard, 2004). The trope of animating the inanimate in myth was not new even then. For example Pandora, the first human woman, was made from clay by the gods Hephaestus and Athena at the instructions of Zeus. Daedalus, a latter day scientist and engineer, also used quicksilver to give one of his statues a voice (Hard, 2004). More recently, the myriad roles of artificial sexual partners in SF been explored in more detail (Grech et al., 2012c).

Jones et al. have posited six hypothetical simulation scenarios whereby the universe that we perceive may well be simulations. They conjecture that the observed universe may consist of theoretical alternative constructs of simulated reality: physical presence, intercept, avatar, android, infinite regression, and monism (Jones et al., 2011). These will now be briefly illustrated by using specific episodes in the series.

1.1 The Physical Presence

The physical presence scenario is best demonstrated by the holodeck, a device that combines several technologies: replication, transportation and shaped force fields (Grech, 2011). In this way, objects or living creatures and reality itself are simulated, deceiving all five senses "in a virtual environment that is so realistic it cannot be distinguished from the true physical environment" (Jones et al., 2011). Indeed, this technology goes beyond simulation

Riker: I didn't believe these simulations could be this real. Data: Much of it is real, sir. If the transporters can convert our bodies to an energy beam, then back to the original pattern again (Corey, 1987).

1.2 The Intercept Scenario

The intercept scenario proposes a situation wherein although we are in complete control of our consciousness, and the rest, including our bodies, are artificial constructs, existing solely in the mind, a Matrix-type setting. One of the best known examples is Captain Picard's experience when an alien probe paralyses him and dumps his consciousness into an alien setting, living out a life in speed-up/acceleration as a member of an extinct race. He lives out an entire lifetime in twenty-five minutes of objective time, just before being returned to the *Enterprise* (Lauritson, 1992).

1.3 The Android Scenario

The android scenario is ubiquitous in Trek since Data and holograms are synthetic creations, simulated individuals.

1.4 The Avatar scenario

The avatar scenario is never depicted, possibly because it is the antithesis of humanism, a strongly held belief of Gene Roddenberry, ST's creator (Alexander 1991). This scenario posits us as extremely realistic avatars that are covertly controlled by external beings.

1.5 The Infinite Regression Scenario

The Infinite Regression Scenario is inflicted on Riker, the *Enterprise*'s second officer when an alien child buries him in several Matryoshka-like layers of nested and totally different realities, which he has to individually penetrate. These turn out to be simulations within simulations that have limitless potentials as to the total number of worlds or universes that might be nested within each other.

1.6 Monism Scenario just before

Some alien species appear to be able to deliberately alter the perception of the nature of reality by mental means alone, producing the Monism Scenario, such "that although we are in control of our own consciousness, our bodies and the material world that surrounds us are an artificial construction" (Jones et al., 2011). The Original Series bridge crew succumb to aliens in a Monism Scenario when they find themselves in the simulated western town of Tombstone (McEveety, 1968), wherein the almost voodoo-like belief that one has been shot by a pistol can be fatal.

This paper will now describe similar occurrences of the PG myth in ST and will show that the myth accedes to three of these simulation scenarios.

2 Narratives

2.1 Women (and men) in the holodeck, a Physical Presence Scenario

The holodeck in ST is a device that combines several individual and programmable ST technologies (replication, transportation and shaped force fields) to produce a simulated reality facility (Grech, 2011). In this way, inanimate objects, living creatures and reality itself may be simulated, deceiving all five senses.

Beings may be created or recreated in the holodeck purely for pleasure in "sex programs" (Landau, 1993). However, in one instance the holodeck was utilised by an alien species to distract the Enterprise's captain and second officer while the ship was being stolen (Lynch, 1988). The second officer is smitten by a lovely synthetic woman. He tells her

"I know you are a computer-generated image, but your smell, your touch, the way you feel. Even the things you say and think seem so real. [...] How far can this relationship go? I mean, how real are you?"

The captain also finds her "astounding" and "very impressive." He also comments that "she's so very different from the images we've experienced on the holodeck, isn't she? She's more intuitive." The second officer affirms,

"it's as though she's been plugged into my subconscious. She already knows what I want her to say before I'm aware of it myself $[\ldots]$.

It's uncanny. I could develop feelings [...], exactly as I would for any woman."

Attractive women may also be created purely for decorative purposes, such as Ms. Mona Luvsitt (Kolbe, 1995), a valet in a Bond-style holodeck action program who was not only highly attractive and provocatively attired, but also spoke seven languages, possessed degrees in all of the basic sciences, was said to be able to fly any aircraft and made excellent martinis. Her very name is a tribute to the sexually suggestive names customarily given to Bond girls (Erdmann and Block, 2000).

The holodeck has also been used to create synthetic sexual partners for Vulcans, an alien species whose members must mate every seven years shortly upon entering their mating cycle, or die (Grech, 2012a). Such conditions could potentially prove fatal on a starship in the distant reaches of space where members of the opposite sex yet the same species are unavailable. This subterfuge is successful in one instance for a male Vulcan (McNeill, 2000) but fails on another occasion with another (Robinson, 1997).

There are two occasions wherein female Starfleet officers engage in holodeck programs might potentially be construed as leading to sexual encounters and these are health spas (Conway, 1995) and medieval recreations centred around the chivalrous era of the Knights of the Round Table (Conway, 1995).

In another episode, the captain of the starship *Voy-ager*, is stranded on the other side of the galaxy with the rest of her crew. The female captain is simply uncomfortable fraternising sexually with the crew. Instead, she alters an existing character in a program that simulates a quaint old Irish village in order to suit her personal needs (Kroeker, 2000).

And in the very first aired episode in the original series, a shape-shifting alien appears as an attractive, Swahili-speaking African male in order to entrap the African communications officer, Lt. Uhura (Daniels, 1966).

However, when it comes to these technologies, not all is rosy. Holoaddiction is a fictional psychological disorder in which a person prefers to exist in the simulated world afforded by the holodeck than in the real world (Vejar, 1999). Unwanted complications may also arise from these creations, such as when a male crewperson finds himself becoming attracted to, and indeed, almost falling in love with a holodeck projection of a female scientist that he recreates in order to help him with a problem on the *Enterprise* (Beaumont 1989).

2.2 The Nexus and other Monism scenarios

The Nexus is a Monism state and comprises the ultimate solipsistic realm, an extradimensional domain in which one's every thought, feeling and desire are brought to life, including old lovers. However, the Nexus is an ultimately self-defeating existence, as noted by Captain Kirk who inadvertently finds himself immersed in it. Referring to an old lover, he muses "she isn't real either, is she? Nothing here is. Nothing here matters" (Carson, 1994)

Some alien species are also shown to be capable of altering the perception of the nature of reality by mental means alone as shown in the very first pilot episode of ST. These aliens produce a perfect illusion. They had us seeing just what we wanted to see [...]. Now let's be sure we understand the danger of this. The inhabitants of this planet can read our minds. They can create illusions out of a person's own thoughts, memories, and experiences, even out of a person's own desires. Illusions just as real and solid as this table top and just as impossible to ignore (Daniels, 1966).

2.3 The Android Scenario

This scenario is completely different in that it posits the complete simulation of brain and body, such that consciousness itself becomes a technological construct and it is the individual and not the environment that is simulated.

For example, the *Enterprise* crew discover an immortal human, due to the natural properties of "instant tissue regeneration coupled with some perfect form of biological renewal." He admits that he conceals this and that he lives "some portion of a life", to pretend to age and then move on before my nature was suspected.

"He confess that he "married a hundred times [...]. Selected, loved, cherished. Caressed a smoothness, inhaled a brief fragrance. Then age, death, the taste of dust." He wanted a "perfect, ultimate woman, as brilliant, as immortal as [himself. A] mate for all time [...] physically human but not human. [...] an android." Flint further acknowledges that she was"

"created here by my hand. Here, the centuries of loneliness were to end [...]. Designed by my heart. I could not love her more [...] I love her. She is my handiwork, my property. She is what I desire" (Golden, 1969).

Similarly, a scientist implants his injured and dying wife's consciousness into an android body that is a perfect simulacrum of her old body. She is not told about the exchange by her husband as "there was no reason for her to know. I wanted her to be happy. I wanted us to be happy" (Scheerer, 1993).

In another episode, alien technology allows a dying scientist to transfer his consciousness into a mechanical android body that is externally indistinguishable from his former body. He also creates an alluring female android companion who falls in love with him (Goldstone, 1966).

In yet another episode, equally alien and sophisticated technology is used to create sentient androids who are female and "lovely [...] programmed to function as human females" (Daniels, 1967).

3 Discussion

Despite the frequent occurrences wherein artificial attractive partners manifest themselves in the franchise, in none of the episodes are there covert or overt visual or textual clues that refer directly or indirectly to the PG myth. This is in contrast with the *Voyager* series which is a futuristic reprise of Odysseus's return to Ithaca in *The Odyssey*.

Indeed, in a particular episode, one of the *Voyager* officers finds herself in a setting that is very similar to that in ancient Greece, in an amphitheatre complete with a part in a Greek style play, along with an appropriate declamation at the end of the episode: "*Voyager* will continue on her journey to the gleaming cities of Earth where peace reigns, and hatred has no home" (Livingston 1996). In these ways, ST replaces myth and literally becomes the modern version of myths (Tyrrell, 1977).

The episodes mentioned in this paper were specifically reviewed in order to ascertain whether there are any overt or covert references that allude to the PG myth. There are no verbal or visual clues to be found, so it would appear that the myth is retold in the abovementioned episodes without any direct or indirect references to the original. This is in contrast with the *Voyager* episode "Muse" that directly refers Odysseus and The Odyssey, as already mentioned.

In the PG myth, Galatea is given vital life through divine intervention. This cannot happen in ST, where the role of divinity in providing an *élan vital* is replaced by scientific legerdemain that is equally unexplained, but acceptable as a potentiality that science might one day be able to provide. This is not to say that religion is not integral to ST (Jindra, 1994). While such references are mostly covert, they have been frequent enough to merit book-length analysis, such as the role of ST in the American mythos (Lundeen and Wagner, 1998), and the representation of symbol and archetype in the franchise (Kapell, 2010). More specifically, fans have been shown to adapt specific issues or entire series to their personal needs (Jenkins, 1988), using them as a moral prop and support for general or specific travails that they encounter in life (Geraghty, 2007).

The future fictional world that comprises ST provides fertile ground for the narrative possibility of conjuring humans or humanoids to specification, including women that completely embody male fantasies (Erdmann and Block, 2000). Such episodes allow the prospect of consciousness to be created outside an organic brain (Mc-Crone, 1993), an actual possibility in the field of artificial intelligence as science races toward the singularity, the critical juncture beyond which, it is surmised that scientific progress will become so rapid that it will outstrip human comprehension (Kurzweil, 2005).

For ST narratives to continue, show after show, intimacy, marriage and settling down to have family simply cannot manifest. Such entanglement would drastically change the nature of the overall scheme of things and prevent characters from acting as free agents, subservient only to their loyalties in relation to quasimilitary hierarchies. Indeed, almost as if to demonstrate the perils inherent in marrying a Starfleet officer, two separate episodes specifically demonstrate what happens when the mind of a spouse is taken over by an inimical alien (Grech, 2013c).

Miles O'Brien, a Starfleet engineer, is married to a botanist, Keiko. The spouses' minds are taken over, in different episodes. They are then readily held to ransom with threats to the bodies that were taken over by said aliens (Livingston, 1992; Kroeker, 1996). This can lead to situations that endanger many others, such as when O'Brien is directly threatened with Keiko's death, should he fail to comply with the demands of an alien that has taken over his wife. O'Brien is told by Keiko's body which has been overwhelmed by an alien mind

"I have taken possession of your wife's body. I will hold it hostage until you do everything I tell you do accurately, and without question ... if you don't do precisely what I ask, I'll kill your wife ... I'll stop her heart forever ... these corporeal bodies of yours. So fragile. Burst even a tiny blood vessel in the brain and every memory, every passionate emotion, gone forever ... you might be able to stop me. But I promise you one thing. If you do, Keiko will die. All I need is a split second to cause a massive brain haemorrhage and she's gone (Kroeker, 1996)."

In both episodes, the original brains are restored to their bodies. Simple friction is also seen when their careers clash, such as when O'Brien is transferred to the space station *Deep Space Nine*, and attempts to remind his wife that "we made the decision together." Kieko rebuts "Not true. That's not true. You decided and asked me to agree with it" (Lynch, 1993). It has therefore been argued that to some extent, the inability or reluctance to enter into matrimony explains the propensity of characters to become attracted to and fall in love with imaginary or synthetic women (Erdmann and Block, 2000). This naturally devolves the role of such creations to that of "the ultimate convenience female," an objectified embodiment of lust with no true consciousness to mollify (Wilcox, 1991).

The dearth of females creating synthetic men for sexual purposes belies recent studies which show that women's desires vary little from the male of the species (Bergner, 2013), hence ST's simulation of so few males for intimate purposes is unrealistic and potentially sexist.

In conclusion, the narratives discussed are ultimately variants of the PG myth, appropriately censored for the modern age through scientific or pseudo-scientificexplanations. These narratives rationalise the myth (which comprises the plot) through a process of cognitive (coherent and rational-appearing) scientific explanation.

To the best of this author's knowledge, the upcoming Star Trek Symposium (10-11 July 2014 – Dolmen Hotel Qawra - http://www.startreksymposium.com) is the first academic event relating solely to Star Trek. This event will present papers similar to this and is open to all.

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