

Rational Emotion, Feminine Professionalism, and Cooperative Success: Women Scientists in *Star Trek: Voyager* as Challenges to the Dominant Ideology

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ABSTRACT This article considers *Star Trek: Voyager's* portrayal of women in the sciences through the lens of Eva Flicker's 2003 review of scientific women throughout film and television from 1927 to 1999. Two core divergences in *Star Trek: Voyager* are identified: the absence of constraining dualities such as the rational-emotional and professional-feminine divisions, and the lack of isolation experienced by the female scientists. Such a representation would have positive effects on female viewers according to the sociological interpellation process model, which is supported by testimony and correspondences with multiple fans.

Since its debut in 1966, *Star Trek* as a franchise has continually challenged social and political issues of our modern society. In 1995, the fourth television series in the franchise, *Star Trek: Voyager* (hereafter '*Voyager*') came into the spotlight when Captain Kathryn Janeway became the first woman to take the captain's seat as the lead in a *Star Trek* series. However, Janeway's groundbreaking role was not limited to her position as captain, and she was not the only remarkable female character on the show to challenge the representation of women in the media. Her crew included diverse and interesting women such as Lieutenant B'Elanna Torres as Chief Engineer, Seven of Nine as lead Astrometrics Officer, and Kes as the hydroponics coordinator and medical assistant, with Janeway herself being grounded in the science division of the fictional "Starfleet" organization. These scientific

women challenged the dominant ideology of the time, which rejected female professionals by construing women as irrational, overly emotional beings who must choose between their femininity and professionalism (Sigouin, 2013a). In the sciences in particular, successful, professional women in the media were often isolated from other women in their field and presented as anomalies (Flicker, 2003). *Voyager*, however, presents an emergent, counter-hegemonic discourse, in which women are both emotional and rational, feminine and professional, and exist in an environment in which they are challenged and supported by other women in their field.

In 2003, Eva Flicker of the University of Vienna published an article in which she analyzed the role of women in science in fifty-eight movies and television shows from 1929 to 1997. She identified six main archetypes of female scientists prevalent throughout the media, in which the overall theme was a clear dichotomy between scientists and *female* scientists (Flicker, 2003). According to Flicker, characters of women in science are more strongly influenced gender stereotypes than they are by occupational stereotypes. Female scientists in the professional field were shown to “bring in intuition, emotional elements, love affairs, and feelings” – a contrast to the scientific rationality of their male counterparts. These women were also subject to a duality between professional success and femininity, in which female scientists could exercise either femininity or achieve scientific recognition, but not both. Ultimately, scientific women in the media were far and in between, representing only 18% of key scientific roles, and when they worked in teams, they were isolated from other women and subordinate to their male colleagues.

In our modern communities of science and professional academia, women face similar struggles with stereotypes and representation. As of 2003 in Europe, women filled only about 10% of professorial positions, and although the situation in the US is somewhat better, it is by no means equal; 23% of American professors are women

(Flicker, 2003). The women who do go into scientific and academic fields often find themselves subject to the same dualisms identified by Flicker; for example, Meg Urry, an astronomy professor at Yale University, emphasized the professional-feminine dichotomy in her own experience by saying: “American men can’t seem to appreciate a woman as woman *and* a scientist; it’s one or the other” (Pollack, 2013). This situation in the scientific and academic communities may further be perpetuating the problem of gender inequality in these fields by intimidating the women who do attempt to pursue scientific careers. In the field of technology, for example, women drop out twice as often as men, and Dr. Telle Whitney, head of the Anita Borg Institute in Silicon Valley, cites the cause as being the discomfort women experience due to sexism in the technology field. Female students pursuing scientific academia, such as Kristen Pownell, an electrical engineering student at Stanford University, also claim that they feel isolated and intimidated due to the scarcity of other female scientists (“Silicon Valley”, 2013).

Voyager, however, represents a clear divergence from the limited, stereotyped role forced upon professional women in both the media and modern scientific circles. *Voyager’s* progressive image of women is first evident in the way the show handles the interaction between emotionality and rationality in its female characters. On the show, women exist on a spectrum of emotionality that is independent of their gender. B’Elanna, for example, is highly emotional, and possesses a hot tempter that leads her to break a fellow engineer’s nose over a scientific disagreement (Braga & Trombetta, 1995). In contrast, Seven of Nine is emotionally controlled, almost mechanical, but Seven’s lack of powerful emotional drive is not shown to make her a more capable scientist than B’Elanna. They are scientific equals, both of whom make numerous significant contributions to the ship’s functioning by effectively applying their respective sciences. Whereas B’Elanna is able to repair and improve the ship’s technological systems with efficiency unparalleled by any

other crewmember, Seven of Nine's expertise in astronomy and knowledge of the villainous Borg make her equally invaluable.

Further, *Voyager* does not present logic and emotion as mutually exclusive, but rather as traits that can coexist and cooperate in order to develop the best possible outcome. In the episode "Parallax", for example, Commander Chakotay argues that B'Elanna's heightened emotion is in fact a logical response to her environment; while a member of the rebel organization "the Maquis", B'Elanna's temper was instrumental in functioning in the Maquis' informal hierarchy. Throughout the rest of the episode, B'Elanna further proves that her emotion is an asset even in a more rigid command system like that of *Voyager*. She has the reasoning capabilities to understand their dilemma and formulate a successful solution, but it is her emotion that leads her to speak out of turn and defy the senior engineering officer. Without B'Elanna's emotion driving her to disobey the direct order to "stay quiet", *Voyager* could not have escaped the singularity, and in recognition of this fact, Janeway names B'Elanna Chief Engineer (Braga & Trombetta, 1995).

The situation of professional women in *Voyager* is also remarkable in the fact that none of the women are forced to sacrifice their femininity for their reason or professional success. Seven's case is particularly interesting in this regard – she is dressed in a skintight "biosuit" and is undeniably conventionally attractive. In her article "Borg Babes", Mia Consalvo describes Seven as the "sexiest member of the crew", and states that "her body is feminine in the excess"(Consalvo, 2004). The other crew members are shown to take notice of Seven's feminine physicality and are attracted to her, and while there are significant questions about the production choices of Seven's costume, the fact remains that her appearance does not compromise her respectability as a scientist. In addition, the interaction between her coolheaded rationalism and her attractiveness varies with each of her would-be suitors; for Harry Kim and Lieutenant Chapman, Seven's no-nonsense personality is

intimidating and unappealing (Consalvo, 2004), whereas the Doctor cites the same traits as being a major aspect of his attraction for her (Taylor & Braga, 1999). In this way, *Voyager* does not portray rationality or professionalism to be inherently inversely related to feminine attractiveness, but rather as an issue of individual compatibility.

B'Elanna's character similarly challenges the professional-feminine duality through her romance with *Voyager*'s pilot, Tom Paris. B'Elanna's personality and professional attitude are very similar to that of the "male woman" archetype defined by Flicker (Flicker, 2003). Like Flicker's "male woman", B'Elanna is assertive and harsh, and is prone to engaging in unhealthy, self-destructive behaviors such as recklessness and self-injury, as seen particularly in the episode "Extreme Risk" (Biller, 1998). However, one of the defining characteristics of the "male scientist" is their lack of eroticism or female charm (Flicker, 2003), and B'Elanna, in her relationship with Tom Paris, subverts this archetype. She and Tom have a powerfully sexual relationship, and in the seventh season, they marry and have a child, which further cements B'Elanna's familial femininity. B'Elanna's pregnancy is further significant as her ability as an engineer is not portrayed as compromised due to her motherhood. She continues to work as Chief Engineer until the onset of labor, and pregnancy hormones are never cited as the cause of any of her decisions or emotions (Kahn, 2001).

By the end of the series, Captain Janeway was the only major female character on *Voyager* to be unattached, having remained distant from the rest of her crew. Her relationship status, however, is not presented as correlated to any lack of femininity on her part, but rather, as a reflection of the isolating nature of command positions. Her unrealized chemistry and feelings for her first officer, Commander Chakotay, are strongly reminiscent of the unconsummated relationship between Captain Jean-Luc Picard and Doctor Beverly Crusher in the earlier *Star Trek* series, *The Next Generation*, suggesting that her romantic isolation is more closely related to her position than it is to

her gender. And although Janeway never does engage in an official, on-screen relationship, she is nevertheless presented as an attractive, sexual woman. In the episode “Counterpoint”, Janeway engages in an erotic exchange of wits with Inspector Kashyk, in which Janeway’s tactical prowess as a commanding officer is a significant contribution to her allure. Thus, like Seven and B’Elanna, Janeway’s professionalism does not mitigate her femininity (Taylor, 1998).

Beyond simply the characterization of strong, developed women in scientific roles, *Voyager* further challenges the popular perceptions of female scientists by emphasizing their interactions with one another. Flicker identifies isolation as a prominent characteristic of female scientists in media, troubling even the most successful and competent characters, such as Ellie in *First Contact* (Flicker, 2003). But in *Voyager*, female scientists work in conjunction with one another, and their relationships are shown as intricate and remarkably powerful, which positively affect their ability as scientists. Janeway and Seven, for example, have an intense relationship that climaxes in the series finale. Throughout the series, Janeway frequently cites temporal mechanics and paradoxes as her major scientific weakness, such as in the episode *Future’s End*, when she states: “Since my first day on the job as a Starfleet Captain, I swore I’d never let myself get caught in one of these godforsaken paradoxes . . . it all gives me a headache” (Menosky & Braga, 1996). But in the series finale, *Endgame*, a future “Admiral” Janeway returns from a timeline in which Seven of Nine was killed on an away mission before *Voyager* returned to Earth. At this point, not only does she understand temporal mechanics, but she is even driven to create a paradox herself in order to save Seven (Berman, Biller, Braga, & Doherty, 2001). As a result, Janeway’s relationship with Seven drives her to achieve more as a scientist than she previously had been capable of.

Further, when female characters on *Voyager* do come into conflict, their differences are often mediated by

their professionalism. B'Elanna and Seven, for example, are frequently at odds due to their conflicting personalities, but they nevertheless respect each other as competent professionals. In addition to personal conflicts, the women on *Voyager* are also apt to disagree professionally. In "The Omega Directive", the crew encounters "omega particles", a dangerously powerful material with the ability to destroy subspace and thus render warp travel impossible (Diggs, Kay, & Klink, 1998). Janeway and Seven disagree on how to deal with the particle; Seven believes omega particles represent "perfection" and wishes to study them, whereas Janeway believes they are far too dangerous and unstable to even attempt to contain, and instead advocates for the destruction of the omega particles. They challenge each other, but by the end of the episode, they eventually concede to one another's viewpoints. Janeway recognizes Seven's quest to understand "perfection", and Seven understands Janeway's desire to protect the quadrant from the omega particles' destructive potential. Ultimately, they both attain their goals; Seven destroys the omega particles, but in the process is able to stabilize the particles long enough to give her a few precious seconds to examine them. In this instance, *Voyager* suggests that scientific ideology between female scientists is not homogeneous, but through cooperation and understanding, they are capable of finding solutions that satisfy both parties' needs (Roberts, 2000).

Kes is the final major female character on *Voyager*, but she differs from B'Elanna, Seven, and Janeway, because she does not represent an experienced scientist, but rather, she is a young girl with scientific curiosity and the desire to learn. Her experiences are significant, as they portray the effects that a positive, nurturing environment like *Voyager's* can have on young girls. Kes is an Ocampa, a member of race of aliens with short lifespans (approximately eight years) who are sheltered and coddled underground by a powerful "Caretaker" that provides everything they need (Taylor, Berman, & Piller 1995). She is therefore a member of a "child" race, and she herself is

less than a year old – although this gives her the body of an adult, she is nevertheless quite young, in both Ocampo and human standards. But her scientific curiosity regarding the world around her drives her to the surface and to become a member of *Voyager's* crew.

Voyager is an environment where Kes is provided numerous female role models in scientific positions of power, and despite her youth and inexperience, she is encouraged and respected. Janeway, for example, listens to her recommendations and allows Kes to pursue her own projects, such as cultivating a hydroponics bay, which ultimately becomes a major food source for the crew (Braga & Trombetta, 1995). Kes additionally expresses interest in medicine and trains under the guidance of the Doctor, while Tuvok helps her expand her mental capabilities. By the time Kes departs from the show in season three, she is an undoubtedly capable and powerful scientific woman (McCloskey, 2013).

Kes' experience on *Voyager* is particularly remarkable because it reflects the positive influence the show had on numerous female members of its audience. According to the interpellation process model, women who watch *Voyager* are likely to internalize the show's ideology of science as a legitimate career path for themselves (Sigouin, 2013b). Consistent with the effects predicted by this model, the messages of *Voyager* spread to its audience as an emergent discourse; Kate Mulgrew, who played the role of Janeway, reported that she had received a number of letters and calls from mothers telling her how their daughters had chosen to pursue the sciences "because of the strength and confidence they drew from Janeway's character" (Bowring, 2004). Even as adults, many women who watch *Voyager* have claimed to find support and strength from the characters on the show. In a further interview, Mulgrew said:

"I've had young women come to me and say that before they watched *Voyager* it didn't really occur to them that they could be successful in a higher position in the field of science; girls going to MIT, girls pursuing astrophysics

with a view to a career in NASA” (K. Mulgrew, personal communication, November 1, 2003).

Mulgrew goes on to describe an experience in which she was invited to the White House for a celebration of women in science. During the celebration, she was approached by a group of young women from MIT – among the most celebrated in their graduating class – who cited *Voyager* as a driving force in their career decision. Janeway is not the only woman on *Voyager* to make a difference, however; a fan by the name of Kristy reports that she identified with B’Elanna and her temper, and that B’Elanna’s competence on the ship despite having such strong emotions encouraged her to believe in her own ability (McCloskey, 2013).

Star Trek: Voyager presented a positive image of women in science that challenged the image of professional women advocated by most media at the time. Rather than succumbing to the emotional-rational and professional-emotional dichotomies, *Voyager* developed a number of women who were capable of embodying both ends of the spectrum at the same time. These women were able to support and challenge one another; they were not isolated. As a result, the message presented by *Voyager* was one that claimed science as a legitimate career choice for women that does not necessarily involve gendered limitation or sacrifice. This representation was a positive influence for the women who watched the show, giving them hope and confidence to believe in themselves as professionals. As one fan puts it: “it didn’t matter, in the end, that [Janeway] wasn’t a real astronaut; what mattered was that she comforted, inspired, and motivated” (Ferguson, 2013). Fictional or not, Janeway and her crew had a major impact in changing ideals regarding women in science.

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