

# Single-gendered Worlds in Science Fiction: Better for Whom?

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An excess of one gender is a regular and problematic trope in SF, instantly removing any potential tension between the two sexes while simultaneously generating new concerns. While female-only societies are common, male-only societies are rarer. This is partly a true biological obstacle because the female body is capable of bringing a baby forth into the world after fertilization, or even without fertilization, so that a prospective author's only stumbling block to accounting for the society's potential longevity. For example, gynogenesis is a particular type of parthenogenesis whereby animals that reproduce by this method can only reproduce that way. These species, such as the salamanders of genus *Ambystoma*, consist solely of females which does, occasionally, have sexual contact with males of a closely related species but the sperm from these males is not used to fertilise ova. Instead, it stimulates ovum development without any exchange of genetic material. It is believed that this species has survived due to the extremely rare (perhaps one in one million matings) fertilisation of ova by sperm, allowing genetic mixing and a modicum of biodiversity due to the introduction of new material in this salamander's gene pool.<sup>1</sup>

On the other hand, the male body needs to be considerably re-engineered in order to carry a baby to term, necessitating a uterus, placenta and a delivery mode/orifice. However, conception may be dispensed with through an asexual method of reproduction, such as cloning or parthenogenesis, and the gestating process may be bypassed by a postulated ectogenetic process. The latter may also serve to gestate a baby that is produced by a sexual reproduction, through the conventional recombination of a spermatozoon with an ovum, and the resulting zygote implanted in an artificial uterus in the same way that a zygote is now implanted in a uterus by *in-vitro* fertilisation.

Yet another reason that explains why women-only

worlds are commoner than men-only worlds is that a number of writers have speculated whether a world constructed on strict feminist principles might be utopian rather than dystopian, and 'for many of these writers, such a world was imaginable only in terms of sexual separatism; for others, it involved reinventing female and male identities and interactions'.<sup>2</sup>

These issues have been ably reviewed in Brian Attebery's *Decoding Gender in Science Fiction* (2002), in which he observes that 'it's impossible in real life to isolate the sexes thoroughly enough to demonstrate [...] absolutes of feminine or masculine behavior',<sup>3</sup> whereas 'within science-fiction, separation by gender has been the basis of a fascinating series of thought experiments'.<sup>4</sup>

Intriguingly, Attebery poses the question that a single-gendered society is 'better for whom'?<sup>5</sup>

## MEN-ONLY WORLDS

A typical example of a men-only world is A. Bertram Chandler's *Spartan Planet* (1968), which features a men-only dystopia, 'Sparta', modelled on the militaristic values of the ancient Greek city-state. This version of Sparta is peopled by hypermasculine soldiers and effeminate nurses, with the same sex providing both of the conventional gender roles, and possibilities for sexual pairing. Spartan society is based on a deception as the planet's history is covert, the existence of a handful of women prostitutes is known only to the doctors who are the planet's elite, and the importation of ova to maintain the population is also concealed.<sup>6</sup>

In Cordwainer Smith's *The Crime and the Glory of Commander Suzdal* (1964),<sup>7</sup> based on his series dealing with *The Instrumentality of Mankind*,<sup>8</sup> humans settle on a planet where femininity is carcinogenic to all Earth species. Tumours develop widely on the lips, breasts, groin and edge of jaw, and frantic research shows that the alien sun's radiation has an unknown factor that turns body's own endogenous steroid hormones into a

hitherto unknown form of steroid that infallibly causes cancer in all females. One of the female doctors involved in the intensive research proposes turning all human females into males by injecting them with massive doses of testosterone, eliminating existing tumours and the tendency to develop tumours. Moreover, she learns how to implant tissue into the abdominal cavity such that an artificial womb, complex chemistry and artificial insemination, along with the judicious use of radiation and heat make it possible for men to bear boy children.<sup>9</sup> Further generations have very occasional female births that die unceremoniously and women were considered mythical, deformed and misshapen creatures in this society based on extreme violence and bloodshed.

The possibility of men carrying babies to term was explored in a more humorous vein in the film *Junior* (1994), where a medical researcher who develops a new drug that will allow expectant mothers to carry endangered babies to term is prohibited from testing the drug by Government regulation. He therefore implants a fertilised ovum in his own abdomen and carries it to term with the help of his own drug.<sup>10</sup> Virtually all pregnancies in the animal kingdom are carried by females of the species. In biology, male pregnancy is defined as the incubation of one or more embryos or foetuses by the male, and an example is provided by the *Syngnathidae*, a family that includes sea horses, leafy sea dragons and pipefish. In these species, females lay eggs in a brood pouch on a male's chest, and fertilisation by sperm and incubation continue by the male.<sup>11</sup>

A threatened men-only world is also portrayed in John Blackburn's *A Scent of New-Mown Hay* (1961), where a desperate, last-ditch German biological weapon from the mid-1940s features a mutated 'Madura' fungus that turns all women into monstrously inhuman, mobile fungal masses, completely sparing men.<sup>12</sup> The aetiological basis of this disease is inaccurate as this fungus does not exist. Madura is a region in India where the condition 'Madura foot' was first identified in the mid-1800s. Madura foot is a mycetoma, a chronic and localised subcutaneous granulomatous infection caused by more than twenty species of fungi and bacteria, and which may extend to involve underlying bone, joints, muscles and tendons. The infecting organism/s usually enters the body through a scratch or abrasion which is why the foot is most likely to be the site of infection. However, any part of the body may be involved.<sup>13</sup>

A dearth of women is also envisaged in the lunar penal colony in Heinlein's *The Moon is a Harsh Mistress* (1966). The original gender ratio of convicts was ten males to one female. Two generations later, the societal result is that women are venerated and revered, treated with exaggerated courtesy, and with dozens of suitors each. Women are completely safe anywhere on Luna, and sex crimes and domestic disputes are unheard of. Marriage customs also reflect these customs with group marriages and polyandry being the norm. In typically Heinleinian scenario, the convicts and transportees drift into a semi-anarchic society ruled mainly by common sense in a live and let live philosophy.<sup>14</sup> Such narratives reinforce how SF 'has a long history [...] of questioning systems of thought, particularly those we now label metanarratives [...], even as it appears to [...] valorize notions of scientific

method, objectivity, and progress'.<sup>15</sup>

An enormous preponderance of male births accompanied by frequently sterile females is the plight depicted for future man in Clark Ashton Smith's *An Adventure in Futurity* (1931).<sup>16</sup> In Alan Nourse's *Raiders from the Rings* (1962), after a sojourn in space of any length with exposure to cosmic rays, men (who then become known as 'spacers') are unable to father female children, so they steal women from Earth as future mates. Interestingly, despite their radiation exposure, spacers are neither more prone to sterility nor more prone to father mutations. However, they are distinguished by white hair by the end of their teens and tend to live longer than the norm.<sup>17</sup> The author, a doctor, proposes that male sperm that carry an X chromosome have this chromosome put out of commission, so that the X behaves like a Y. Naturally, the protagonist, a young spacer, does not know what it means to have a sister. The story poses some unanswered questions in that we are never told whether cosmic radiation affects females in any way, or whether this radiation has any effects on other species. Interestingly, longevity in spacers occurs at the price of partial infertility in that spacers can only father males.

In *Raiders from the Rings*, effective infertility is portrayed as the basis for interplanetary war, a theme that shall be encountered later. Similar issues are raised in *Mars Needs Women* (1966), where Martians with a genetic deficiency that results only in male babies launch a mission to Earth to recruit female volunteers for Mars, meeting strong resistance from Earth governments.<sup>18</sup>

In the case of 'spacers', it is biologically impossible for the X chromosome to behave like a Y chromosome but it would be possible for the Y to behave like an X if the SRY (Sex-determining region) gene on the Y chromosome were knocked out of action, producing only females.

The XY arrangement is not universal and many situations found in nature appear almost science-fictional in their peculiarity. For example, some mammalian species have lost the Y chromosome entirely and only have an unpaired X chromosome, while others use a different Y chromosome or have both genders with paired XX chromosomes, as already discussed.<sup>19</sup> In birds, the system is similar but reversed with a heterogametic ZW chromosome combination comprising a female, while a homogametic ZZ comprises a male.<sup>20,21</sup>

Non-mammalian and non-avian species have even more unusual gender determining arrangements. For example, some reptiles, including all crocodylians, many turtle and tortoise species, and some lizards, use temperature-dependent sex determination, and sex is therefore determined after conception, during embryogenesis, according to ambient environmental temperature.<sup>22</sup> Interestingly, temperature-dependent sex determination has been recently advanced as a possibly reason for the extinction of the dinosauria in that global temperature changes may have skewed the sex ratio at birth of these species leading to a preponderance of males. Naturally, current global warming may also pose a risk for extant temperature-dependent sex determination species.<sup>23</sup>

It is not dinosaurs but other kinds of humans who are the menace to humans, in Edmund Cooper's *The Slaves of Heaven* (1974), in which earthbound primitive humans,

descendants of survivors of an atomic war, are preyed upon by high-tech humans who weathered the war in orbit and remained there so as to avoid radioactivity. The human females in orbit do not gestate infants as gestation in a microgravity environment accelerates ageing, therefore their ova are extracted, fertilised by sperm from their male counterparts, and after this *in-vitro* fertilisation, implanted in females who have been abducted from Earth who therefore serve as surrogate mothers. Once again, infertility is depicted as the cause for aggression between two groups of humans.<sup>24</sup>

Another men-only world is found in Lois McMaster Bujold's *Ethan of Athos* (1991). The planet Athos is all-male. Women are completely forbidden, and because of generations of such upbringing, women are mistrusted. The protagonist is an obstetrician who cares for the unborn, with gestation carried out via artificial external wombs which feature in many of Bujold's novels. Exowombs are depicted as convenient ways for women to have babies without the discomfort of gestation and labour.<sup>25</sup> The device can also be used as a sort of antenatal intensive care unit for foetuses that may have sustained damaged, for example, by toxic gas.<sup>26</sup>

Aliens are responsible for forcing mankind to exist in a men-only world in Theodore Sturgeon's *The Incubi of Parallel X* (1955), when an alien invasion force slaughters women on a massive scale in order to extract a specific female hormone that rejuvenates the invaders. A scientist hides the surviving women in a parallel dimension out of sight of the ravaging aliens.<sup>27</sup> A special case of a male-only world applied to aliens is depicted in Fred Pohl's *I Plingot, Who You?* (1959) wherein a cowardly, spacefaring alien species devotes itself to destroying species who are on the brink of spaceflight so as to eliminate all possible threats to their species. However, a final male stowaway of a destroyed species is found on a spaceship.<sup>28</sup>

### WOMEN-ONLY WORLDS

Women-only worlds may be considered the extreme in ultra-feminist utopias. The concept of an all female society dates back at least to the Amazons of ancient Greek mythology, who, however, still required males to conceive.<sup>29</sup> SF allows us to perform thought experiments that create different Utopias, as conventional Utopias are often similar to More's Utopia, 'where equality is emphasized above all else, even to the point of suppression of individual liberty and imposition of a potentially oppressive conformity, [...], More's Utopia is still a strongly patriarchal society'.<sup>30</sup>

One of the earliest novels in this vein is *Mizora* (1880) where men are more forgotten than actually hated.<sup>31</sup> However, the most famous story in this trope is John Wyndham's *Consider Her Ways* (1979).<sup>32</sup> The female protagonist, a contemporary woman, awakens in a female-only world, and finds herself being called 'mother' by her attendants. Her initial amnesia slowly wears off but in the interim, she discovers that she has somehow travelled to the future and had very recently and successfully delivered quadruplets, and that she has had three other such deliveries. Other classes of women include strong and large framed manual workers and small framed servants. The ruling class most closely approximate today's women and decides the appropriate ratios of all classes. Babies

are then manipulated by specialised feeding, hormone manipulation and training.<sup>33</sup> The concept for these classes was initially derived from the Bible: 'Go to the ant, thou sluggard; consider her ways, and be wise'.<sup>34</sup> The lack of males is explained as an accident by a male scientist who attempted to develop a virus that would exterminate the common male rat, a virus originally derived from one that specifically attacked rabbits, but which mutated and killed human males.

This situation is similar to the fungus-growing ant species *Mycocepurus smithii* that is located in the Amazon, whose queen produces eggs asexually, without any need for male fertilization. Hives are therefore composed entirely of females, albeit with the remainder of the hive composed of sterile female workers as is typical in ant colonies.<sup>35</sup>

The infection parallel in *Consider her Ways* is with rabbits, which are prolific breeders, originally only native to southern Europe, but which were also widely introduced elsewhere in northern Europe and Australia. When introduced into environments that have not evolved natural defenses against them, rabbits cause enormous damage. Myxomatosis is a disease that infects only rabbits and was first observed in Uruguay in the early 1900s, and which was deliberately introduced into Australia in an attempt to control rabbit infestation.<sup>36</sup>

In *Consider her Ways*, doctors used this opportunity to grasp power along with other graduates. These privileged women are allowed to have babies should they so desire. Women who wanted to attempt to bring back the male of the species were banned since this society views our current western society as having enslaved females with consumerism, making females unwitting slaves to romance.

A number of other (mostly) feminist novels have used this premise to redefine the conventional patriarchal status-quo, and experimenting with the results of an all-female society. Another famous and early novel is Charlotte Perkins Gilman's *Herland* (1915), which depicts a country discovered by three male explorers, a lost civilisation inhabited only by women who reproduce parthenogenetically and where men are unknown. The explorers refuse to believe that such a culture could exist without men. Their conventional assumptions with regard to the innate inferiority of women are quickly put to the test when they are captured by a group of Herlander women, who subdue them with chloroform and educate them about their society.<sup>37</sup> Gilman was a prominent social critic and feminist writer in the United States from the 1890s through the 1930s, and humorously used this satire to question conventional and unquestioned gender roles, sexism and inequalities in a male-oriented society by comparison with a homosocial female utopia with a complete culture, political and financial system. This system is depicted as having developed from an all-female society, based on the principles of love, sharing and continuous striving towards improvement in the absence of men, implying that only without men and sex can utopia be achieved. The novel also anticipates modern problems such as pollution and overpopulation. The cyberfeminist Sadie Plant has wished for just such an extreme scenario, with women living separately from men and reproducing parthenogenetically.<sup>38</sup>

It must, however, be pointed out that SF authors have also explored utopias that do not isolate genders, and for example, in Marge Piercy's *Woman on the Edge of Time* (1976),<sup>39</sup> a 'utopian community manages successfully to integrate advanced technology, social planning, individual liberty, and a close connection to nature [...] all citizens [...] are treated equally regardless of race, gender, or other differences'.<sup>40</sup> The population is controlled by having children to only replace deaths, and children are raised by groups of three co-mothers who may be male or female. Any of the trio may lactate, even males, as milk production is stimulated artificially, and all infants and toddlers are housed communally in large nurseries. Monogamy, the nuclear family and sexual exclusivity are obsolete. Language is therefore not gendered, the word father is lost, mother may denote a member of any sex and the third person pronouns 'he' and 'she' are replaced by 'per', a contraction for 'person'. Piercy also depicts an alternative dystopia wherein 'women function only as the property of men and the men themselves are little more than machines',<sup>41</sup> and a privileged clique of capitalists enjoy long life and affluence on space platforms, while the majority live on a decayed Earth, living on a diet of drugs and sex with ultimately death to look forward to in middle age after selling their organs to the rich for transplantation. Once again, SF clearly cautions us; 'the message seems clear: we can continue the way we are going until we reach this dystopian state, or we can change our ways and work toward utopia'.<sup>42</sup>

Futuristic visions are also employed in Tiptree's *Your Faces, O My Sisters, Your Faces Filled of Light* (1976), where the protagonist, a young woman, journeys simultaneously through the contemporary cynical and capitalist United States while also glimpsing a pastoral, women-only utopia.<sup>43</sup>

A dearth of fertile males in the far future is also depicted in Elisabeth Vonarburg's *In the Mothers' Land* (1992).<sup>44</sup> Total male destruction by an unexplained plague has also been depicted in the comic series *Y: The Last Man* (2003-2008) where every mammal possessing a Y chromosome, including embryos, fertilised eggs and sperm are destroyed, with the exception of a young man and his pet Capuchin monkey.<sup>45</sup> Wallace West's *The Last Man* (1929) portrays an all-female society where women have become masculinised, flat breasted and narrow hipped,<sup>46</sup> while Suzy McKee Charnas's *Motherlines* (1989) describes a female society of clone sisters.<sup>47</sup>

In Nicola Griffith's *Ammonite* (1992), a virus is also responsible for killing all men and also irreversibly alters all women, allowing them to breed without men, but the setting is on an extra-solar planet. The planet is rediscovered by explorers centuries later, who find that women are able to commune with the planet, and realise that this colony poses a deadly threat to all men in the universe if the virus is allowed to escape the planet.<sup>48</sup> The fictional concept of a living and intelligent planet has also been famously expounded by Asimov in *Nemesis* (1989).<sup>49</sup> Even black holes have been imbued with intelligence,<sup>50</sup> and on an even grander scale, Olaf Stapledon envisaged the entire universe becoming intelligent and aware of its maker.<sup>51</sup>

In Edmund Cooper's *Who Needs Men?* (1974) a war that kills far more men than women in the 21<sup>st</sup> century

is the final straw that triggers a popular, communist-type female uprising against men in the United Kingdom, and later worldwide. New females are born either through cloning and artificial uteri or in a more conventional way from a woman in a parthenogenetic process. In the aftermath of this war, men are viewed with disgust and contempt having enslaved women for millennia. 'Wife' becomes one of the most obscene words in the language, reeking of possession, slavery and submission. Males are hunted down and exterminated in the countryside where they hide, and their illicit female companions are viewed with disgust.<sup>52</sup>

The eviction of the male is not uncommon in SF. In Sheri Tepper's *The Gate to Women's Country* (1988), warrior garrisons keep men out of utopian women's towns,<sup>53</sup> the new-wave novel *Meanwhile* (1985) has men banished to the ocean, where they live in a giant bubble, and reproduction is by cloning,<sup>54</sup> and Le Guin's *The Matter of Seggri* (1994) segregates men in an enclosure on the extrasolar planet Seggri, and a series of observers variously describe these men as honoured lords served by women or as sex slaves for free women.<sup>55</sup>

Conversely, men are truly needed, albeit briefly, in the two *Star Trek* episodes, *The Lorelei Signal* (1973)<sup>56</sup> and *Favorite Son* (1997),<sup>57</sup> where beautiful females feed off the 'life energies' of males, thus killing men to retain their immortality at the expense of infertility.

In Joanna Russ's *The Female Man* (1975),<sup>58</sup> 'characters refuse the reader's search for innocent wholeness while granting the wish for heroic quests, exuberant eroticism, and serious politics'.<sup>59</sup> The book deals with four women who hail from different worlds: Jeannine whose world revolves around marriage, Joanna who is experiencing a feminist revolution but is still expected to orient herself around men, Janet who lives in a women-only world as men have been killed off centuries before by a plague, and Jael, an assassin who lives in a world where the two sexes wage a cold war. These individuals are 'four versions of one genotype, all of whom meet, but even taken together do not make a whole, resolve the dilemmas of violent moral action, or remove the growing scandal of gender'.<sup>60</sup>

An alien occupation force conquers Earth, and proposes the imposition of a matriarchal society similar to their own in John W Campbell's *Out of Night* (1976). Males would be culled as few are needed to breed the race. Incidentally, the alien ruler is immortal, and we are told in passing that this process – which is unexplained – has also rendered her sterile.<sup>61</sup>

Nutrition may influence gender and in the insect order *Hymenoptera* (which includes honeybees) the queen is a fully functional female and determines whether to lay fertilised or unfertilised eggs. Fertilised eggs develop into female workers if given standard nutrition in their larval stages or queens if fed with royal jelly. Unfertilised eggs only have only half the number of chromosomes of fertilised eggs and develop into male drone bees, whose only function, like that of men in *Out of Night*, is that of fertilisation of the queen.<sup>62</sup>

The concept of males as drone-like breeders is also seen on the planet Lyrane in EE Smith's *Second Stage Lensman* (1965), where males are deliberately culled, and are stunted and rabidly aggressive breeding machines, kept out of sight and sound;<sup>63</sup> and a similar scenario is

also depicted in MF Rupert's *Via the Hewitt Ray* (1930), wherein males are also brainwashed and sterilised or disintegrated for exhibiting rebellious tendencies.<sup>64</sup> An analogous concept, this time in Martian animals, with violent males who are literally drones, used only to fertilise a female queen who produces all of the necessary worker castes, is seen in Philip José Farmer's *Open to Me, My Sister* (1960).<sup>65</sup> The opposite, female equivalent is the alien female Kzin in Larry Niven's *Known Space*, whose intelligence has been bred down so as to be more docile and more easily manageable by male Kzin, an intelligent and carnivorous species evolved from plains hunting cats.<sup>66</sup>

Other, less well known women-only (or almost so) worlds include *Virgin Planet* (1959),<sup>67</sup> *Leviathan's Deep* (1979),<sup>68</sup> *The Radclyffe Effect* (1969),<sup>69</sup> *London Fields* (1985),<sup>70</sup> *Daughters of a Coral Dawn* (1984),<sup>71</sup> *The World Celaeno Chose* (1999),<sup>72</sup> *The Y Chromosome* (1990),<sup>73</sup> *Wingwomen of Hera* (1987),<sup>74</sup> *Daughters of Khaton*,<sup>75</sup> *A Door Into Ocean*,<sup>76</sup> *Houston, Houston, Do You Read* (1976),<sup>77</sup> *Retreat: As It Was!* (1979).<sup>78</sup>

Interestingly, the mad scientist in Michael Blumlein's *The Brains of Rats* (1986), develops an airborne virus that is capable of transforming humanity into all male or all female within a single generation by affecting foetal development.<sup>79</sup> Farmer's *Mother* (1953) posits an unusual twist, in that human explorers discover a sessile alien species that consists of females, and anything motile is considered male, ingested, and during its pre-death struggles, triggers a chromosomal rearrangement, a unique form of sexual reproduction.<sup>80</sup>

Mankind has also hubristically inflicted a female-only world on the cloned dinosaurs that populate Michael Crichton's *Jurassic Park* (1990) with the purpose of preventing breeding, an automatic control of the dinosaur population. This abstention contraceptive measure fails with catastrophic consequences when some dinosaurs spontaneously convert to the male gender, an amphibian property that they inadvertently acquire since the scientists who created them used frog DNA to fill in gaps in the original dinosaur genetic code.<sup>81</sup>

In women-only utopian societies, the return of men is not a source of joy since '[m]any of these feminist Utopias, in fact, are portrayed within the texts as having emerged from struggles against male-dominated dystopias'.<sup>82</sup> One of the more recent, women-only worlds has been described by Doris Lessing in *The Cleft* (2007), in which an ancient community of women have no knowledge of men and childbirth is regulated by the cycles of the moon. This feminist utopia is disrupted by the birth of boys.<sup>83</sup> Finally, Russ's *When It Changed* (1972) depicts the return of males to the women-only world of *Whileaway*. This society is stable and peaceful and women see the return of the men as a return to tyranny and oppression of the past, and yet, men assume that they will be eventually made welcome, even if their return is forcefully imposed.<sup>84</sup>

### SIMULTANEOUS GENDER ISOLATION

Simultaneous Gender Isolation has been least depicted in SF. Philip Wylie's *The Disappearance* (1958) questions what makes us male or female by a sudden and inexplicable division of our universe into two parallel universes: male-only and females only, for two entire years. Since this is

set in the 1950s, the physical effects in the male universe were minimal with utilities continuing to function despite an explosion of violence that sweeps a world that still operates technologically, whereas in the female world, social stability and peace are offset by famine and a widespread breakdown in technology. Homosexuality becomes the order of the day and both universes extensively and fruitlessly research the possibility of procreation in order for the species to survive; but this problem solves itself when the two universes suddenly merge again.<sup>85</sup>

Robert Sawyer's *Hominids* (2002) depicts an alternate universe in which Neanderthals became the dominant, sentient hominid, rather than *Homo sapiens*. Neanderthals voluntarily separate genders into two communities. Neanderthal females have synchronised menstrual cycles, and the communities come together only four days out of every 29 days, when the females are their infertile phase. Group procreation occurs once every ten years.<sup>86</sup> Interestingly, a few species are known to spontaneously segregate sexually, and these include the Malagasy sucker-footed bat.<sup>87</sup>

One possible and unintended consequence of such isolation is an unexpected pregnancy when the two genders meet again, as outlined in John Varley's *Wizard* (1980),<sup>88</sup> wherein one of the members of a lesbian society who live without males in an orbital colony has sex with a man for the first time, ignorant of the real possibility of pregnancy.<sup>89</sup>

In narrative forms, as in the real world, '[g]ender is a way of assigning social and psychological meaning to sexual difference, insofar as that difference is perceived in form, appearance, sexual function, and expressive behavior'.<sup>90</sup> SF is a versatile tool for 'investigating habits of thought, including conceptions of gender. Gender, in turn, offers an interesting glimpse into some of the unacknowledged messages that permeate science fiction'.<sup>91</sup> SF is thus capable of adding one or more novums (such as a single-gendered world) and delves into options and consequences that cannot be ethically experimented in quotidian life.

As we have shown, the single-gendered trope is often used to explore utopias or dystopias. Interestingly, gender roles in these narratives are cast such that 'all-male worlds should be dystopias and all-female ones at least evolving toward Utopia'.<sup>92</sup> Power is enmeshed in all of these discourses, whether feminist or otherwise, as argued by Foucault: '(i) that power is co-extensive with the social body; there are no spaces of primal liberty between the meshes of its network; (ii) that relations of power are interwoven with other kinds of relations (production, kinship, family, sexuality)'. This is particularly so in sexual relations wherein interpersonal relationships achieve greatest intricacy and intensity, and are hence particularly susceptible to the mechanisms of power.<sup>93</sup>

These stories also repeatedly interrogate gender roles, a concept 'which questions binary thinking and introduces crisis',<sup>94</sup> since 'there is no "natural gender" any more than there is a natural language'.<sup>95</sup> This is because the

gender code is [...] like language, [...] something we start learning the day we are born. Its rules and processes become part of the structure of

consciousness, so that we find it difficult to think consciously about it. It is rooted in biology but shaped by culture to such a degree that it is impossible to untwist the thread and say which strands are inborn—and which are acquired and arbitrary.<sup>96</sup>

One point that is clearly raised by these narratives is that the single-gendered utopia ‘paradoxically, ends up asserting a peculiar sort of continuity between genders [...] differences are not flattened out but redistributed [...] Men alone may turn out to be more like women than we thought, and women more like men. Such redistribution alters the meanings [...] of possible overlap’,<sup>97</sup> as famously depicted in Le Guin’s *The Left Hand of Darkness* (1969),<sup>98</sup> wherein genetically engineered human androgynes that are biologically neuter for three weeks of each month go into ‘kemmer’ for the remaining week, a drastic biological change which transforms individuals into highly sexually receptive male or female genders at random. (In some existing Earth species, gender does change during the individual’s lifetime, and recent studies have shown that a wide variety of species change gender when the individual reaches 72% of its maximum size.<sup>99</sup>)

Through single-gendered worlds, SF submits ‘one way to find out just how men and women really differ might be to catch them by themselves’<sup>100</sup> However, these narratives inevitably raise new questions, such as how do the two genders actually behave alone? ‘Do masculinist texts represent natural, hard-wired, instinctual masculinity? Which of the feminist Utopias most truly expresses women’s needs and desires? The dialectical nature of utopia indicates that no answer to these questions can be complete or final’,<sup>101</sup> but SF authors cannot resist attempting to resolve these issues.

## ENDNOTES

- 1 H. C. Macgregor and T. M. Uzzell Jr, ‘Gynogenesis in Salamanders Related to *Ambystoma jeffersonianum*’, *Science*, 43 (1964), 1043-5.
- 2 Brian Attebery, *Decoding Gender in Science Fiction* (London, Routledge, 2002), p. 107.
- 3 *Ibid.*, p. 106.
- 4 *Ibid.*, p. 107.
- 5 Attebery, *Decoding Gender in Science Fiction*, p. 107.
- 6 A. Bertram Chandler, ‘Spartan Planet’, *Fantastic*, March and May, 1968.
- 7 Cordwainer Smith, ‘The Crime and the Glory of Commander Suzdal’, *Amazing Stories*, May 1964.
- 8 See Karen L. Hellekson, *The Science Fiction of Cordwainer Smith* (Jefferson: McFarland, 2001).
- 9 The resorting to the mythical and mystical powers of heat, light, radiation and chemicals is an old artifice, originally employed by Mary Shelley in *Frankenstein*.
- 10 *Junior*, dir. by Ivan Reitman (Universal Pictures 1994).
- 11 A. G. Jones and J. C. Avise, ‘Mating Systems and Sexual Selection in Male-Pregnant Pipefishes and Seahorses: Insights from Microsatellite-Based Studies of Maternity’, *Journal of Heredity*, 92 (2001), 150-8.
- 12 John Blackburn, *A Scent of New-Mown Hay* (London: Penguin, 1961).
- 13 G. R. Ballingalli, ‘An Account of a Tumor Affecting the Foot’, *Transcripts of the Medical and Physical Society of Bombay*, 2 (1855), 273-6.
- 14 Robert A. Heinlein, *The Moon is a Harsh Mistress* (New York: Berkley Publishing Co. 1966).
- 15 Wendy Gay Pearson and others eds., *Queer Universes: Sexualities in Science Fiction* (Liverpool: Liverpool University Press, 2010), p. 18.
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