

The (Ir)Relevance of Science Fiction to Non-Binary and Genderqueer Readers

ABSTRACT

As an example of Jean Baudrillard's third order of simulacra, contemporary science fiction represents a convenient literary platform for the exploration of our current and future understanding of gender, gender variants and gender fluidity. The genre should, in theory, have the advantage of being able to avoid the limitations posed by cultural conventions and transcend them in new and original ways. In practice, however, literary works of science fiction that are not subject to the dictations of the binary understanding of gender are few and far between, as authors overwhelmingly use the binary gender division as a binding element between the fictional world and that of the reader. The reversal of gender roles, merging of gender traits, androgynous characters and genderless societies nevertheless began to appear in the 1960s and 1970s. This paper briefly examines the history of attempts at transcending the gender binary in science fiction, and explores the possibility of such writing empowering non-binary/genderqueer individuals.

Keywords: gender studies; science fiction; non-binary gender identities; reader response; genderqueer; gender fluidity; gender variants; gendered narrative

(I)relevantnost znanstvene fantastike za nebinarno in kvirovsko bralstvo

POVZETEK

Sodobna znanstvena fantastika, kot primer Baudrillardovega tretjega reda simulakra, predstavlja prikladno literarno podstat za raziskovanje našega trenutnega in bodočega razumevanja spola, spolne raznolikosti ter fluidnosti. V teoriji ima žanr prednost pred ostalimi, saj ni omejen z družbenimi in kulturnimi pričakovanji, temveč jih ima možnost presežati na nove in izvirne načine. V praksi pa se pokaže, da so znanstvenofantastična literarna dela, ki niso podvržena diktatu binarnega razumevanja spola, pravzaprav prej izjema kot pravilo. Avtorji namreč pretežno uporabljajo binarno spolno delitev kot vezni element med literarnim dogajanjem in vsakodnevnimi izkustvi bralstva. Kljub temu se v šestdesetih in sedemdesetih letih preteklega stoletja pričenejo pojavljati dela, ki vključujejo menjavo spolnih vlog, združevanje stereotipno moških in ženskih lastnosti, androgine like in brezspolne družbe. Na kratko si bomo ogledali razvoj sodobnejše znanstvene fantastike v luči preseganja binarne spolne delitve in poskusili oceniti potencial žanra kot medija za opolnomočenje nebinarnega in genderqueer bralstva.

Ključne besede: študije spola; znanstvena fantastika; nebinarne spolne identitete; odziv bralstva; genderqueer; fluidnost spola; raznolikost spolov; ospoljena pripoved

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1 An Introduction to Non-Binary and Genderqueer Readership

1.1 Outside the Gender Binary

The terms non-binary and genderqueer¹ are quickly making their way into both public and private spheres, but there is still much confusion associated with them. The most straightforward, if somewhat simplistic, definition of a non-binary readership would be readers who identify as being outside the gender binary, who transcend the boundaries of the polarised gender dichotomy and therefore identify as neither male nor female. The two expressions, however, serve as umbrella terms for a myriad of gender(less) identities. And it is identities, rather than physical characteristics, that being a genderqueer or a non-binary person revolves around, at the same time not excluding trans² or intersex individuals, who may also, though not necessarily, see themselves as being outside the gender binary. According to Richards, Bouman and Barker (2017, 5), “there are non-binary people who identify as a single fixed gender position other than male or female. There are those who have a fluid gender. There are those who have no gender. And there are those who disagree with the very idea of gender.”

The fact that non-binary gender identities elude categorisation and refuse to exist within the (never adequately justified, yet nevertheless prevalent) polarised dichotomy of male and female might convey the impression that non-binary genders are some new-fangled gimmick or fad that is unlikely to last. In their introduction to *Genderqueer and Non-Binary Genders*, however, Richards, Bouman and Barker (2017, 2) claim that “it would be foolish to assume that non-binary gender is a purely modern phenomenon”. This is supported by examples provided by Vincent and Manzano in the same volume, as they present some instances of non-binary “understandings of gender across time and place” (2017, 11) and gender identities that were “positioned as ‘other’ from men and women, but were not necessarily being marginalised” (2017, 11). With regard to the European continent, their writing covers “multi-contextual examples of eunuchs” (2017, 11), the eighteenth-century English *mollies*, Albanian sworn virgins and the Italian *femminielli*. Asian representatives include the Indian *hijra*, the Thai *kathoey*, the Indonesian *waria* and three non-binary gender categories (out of a total of five) of the Buginese people of Sulawesi. The

¹ The two expressions are very similar in scope, but may carry different connotations. *Non-binary* tends to simply refer to all genders (or lack thereof) that fall outside the gender binary, while the focus of *genderqueer* is more likely to be on the non-normative aspect of the identity and frequently brings with it specific political preferences and affiliations. Consequently I have chosen to primarily use the term *non-binary* throughout this paper in order to be as inclusive as possible.

² *Trans* is a problematic term, in that it is applied differently within different communities and research fields. In the humanities, for example, there is a tendency to treat trans as a fluid subject, whereas the natural sciences frequently view it as a stable one, operating within the gender binary (e.g. gender-reassignment surgeries that require one to showcase their conformity to the said binary). “*Transgender* as a term allowed for a range of choices of how an individual pursued and perceived their own gender identity which may or (importantly) may *not* include medicalised processes” (Stewart 2017, 63), revealing the transgressive potential of transgender individuals. Yet *non-binary*, while mostly including *trans*, also challenges its frequent embracing of gender polarisation and cisgender identities and therefore appears to be a much more appropriate umbrella term for identities across and beyond the gender spectrum.

United States and Canada are represented by several different “two-spirit” identities of Native Americans³ and the First Nations, with South American *machi* completing the overview. While one could argue that the list simply focuses on exceptions to the (binary) rule, Vincent and Manzano nevertheless succeed in presenting an array of geographically and temporally varied examples that do renounce the idea of the gender binary as a self-evident, rigid constant, and expose it as “a relatively recent, Western idea” (2017, 26) that is only one in a long line of possible understandings, social constructions and articulations of gender identities.

Non-binary readers may also appear to some to be an obscure minority, yet figures speak of an ever increasing number of people who do not necessarily identify or even come out as non-binary, but who, in one way or another, feel dissatisfied with and oppressed by the gender binary. Joel et al. (2013) report that their study⁴ on gender identity in (what they call) ‘normative’ individuals revealed that of “the Men (n = 570) and Women (n = 1585) that participated in the study, over 35% felt to some extent as the ‘other’ gender, as both men and women and/or as neither” (Joel et al. 2013, 1). The researchers consequently conclude that their “results show that the current view of gender identity as binary and unitary does not reflect the gender experience of many ‘normative’ individuals” (Joel et al. 2013, 25). If we were to add the growing number of people who already identify as non-binary or genderqueer, the percentage of the general population that cannot entirely locate themselves within the gender binary would likely be even higher.

To better explain the kinds of problems and oppression faced by non-binary identified individuals, Bergman (2017, 41) uses British philosopher Miranda Fricker’s (2007) concepts of *testimonial* and *hermeneutical injustice*. Both are inexorably linked to knowledge, comprehension, awareness and language in particular, making them relevant to studies of non-binary identities in literature too. *Testimonial justice* is “the occasion upon which prejudice causes a person to be perceived as a less credible or non-credible in their capacity as an informant”, while *hermeneutical* injustice signifies a situation in which “a person has no way to describe their experience because the conceptual frame doesn’t exist yet due to their stigmatised or disempowered identity” (Fricker 2007 as qtd. in Bergman and Barker 2017, 41).

I believe literary works in general, and science fiction in particular, carry the potential to address both types of injustice described above. By introducing non-binary characters whose wishes regarding gender identification are clearly respected, literature could lead by example and validate non-binary identities, while at the same time creating the aforementioned conceptual frame by developing linguistic solutions with which to describe the non-binary world. The advantage of science fiction (and fantasy), in comparison to many other genres, is that it does not need to take cultural conventions and limitations into account when exploring alternative societal structures, orders or hierarchies. In fact, it has the privilege of being able to study worlds in which the authors are free to perform thought experiments and introduce new societal norms. With its long history of both utopian and dystopian futures and landscapes, science fiction should be the ideal literary platform for exploring non-binary world. And could these worlds not be non-binary utopias as imagined by their non-binary readers? Could science fiction, in fact, not serve as *the* medium through which to “normalise” the concept of gender variance?

³ A particularly significant example is that of the North American Zuni tribe, which, according to Vincent and Manzano (and supported by Roscoe (1993 and 1998)), “did not position an immediate view of physiology as the primary indicator of gender. Ritual interventions during pregnancy and after the birth were understood as essential for the development of gender” (2017, 23).

⁴ Conducted in Israel.

1.2 Science as Fiction, Fiction as Science

In the age of so-called “alternative facts” and manipulation of empirical (and other types of) data on an unprecedented scale, science has ceased to be seen as objective and indisputable by the general public. J. F. Lyotard (2010) already presented his objections to the idea of absolute scientific truth several decades prior, claiming that science, too, can be influenced by myths and legends, ideologies, religion, pre-existent notions, beliefs, stereotypes, cultural conventions and other similar factors. Our understanding of the world is primarily based on culturally negotiated narratives that are seen as the norm and are rarely questioned. The poststructuralist view is that science is merely one of many possible narratives, an interpretation shared by Donna Haraway, who writes about how “[s]cientific practice is above all a story-telling practice in the sense of historically specific practices of interpretation and testimony” (1989, 4). Michel Foucault (1994) in his work *The Order of Things*, first published in 1966, also famously maintained that no such thing as a universal or objective truth ever existed, but that specific subjective experiences progressed into cultural norms and became what was then termed “natural” and “normal”.

Stewart illustrates this with the example of homosexuality, which “has been deemed ‘objectively’ as a crime, a sickness, and an acceptable identity at different points in time” (Stewart 2017, 59), proving that cultural norms and assumptions can certainly have a profound influence on ‘objective’ scientific research. This is particularly true in relation to sensitive topics such as sexual identity and sexuality, which are even more likely to be affected by prejudice, stereotypes, norms, personal preferences and expectations.

As can be seen from Vincent and Manzano’s (2017, 11–30) examples, “cultural context determines whether gender variation is seen as a ‘disorder’ needing treatment or an understood and tolerated variation” (Newman 2002, 355). Western societies do appear to be supportive of the idea of “being oneself”, frequently even marketing authenticity and originality as desired traits, yet living one’s life outside normative paradigms still exposes one to questioning of the legitimacy of one’s identity, mocking, scorn and even violence. That is why literature, as an active contributor to societal and cultural context(s), can play an important role in legitimising non-binary identities and potentially kickstarting the process of acknowledging a different, much more varied and fluid framework within which gender can be discussed.

1.3 The Non-Binary Reader

In their 1976 paper entitled “Living with Television,” George Gerbner and Larry Gross speak of lack of representation as *symbolic annihilation*. “Representation in the fictional world signifies social existence; absence means symbolic annihilation” (2005, 134), they write. In an article for the *Huffington Post* last year, sociologist Michael Morgan was also quoted as saying: “When you don’t see people like yourself, the message is: You’re invisible. The message is: You don’t count. And the message is: ‘There’s something wrong with me’” (see Boboltz 2017). Although both these quotations specifically address lack of representation in television programmes, they could easily be applied to literary works as well.

According to Monika Fludernik (in Koron 2008, 58), gender within the narrative is constructed in both implicit and explicit ways – explicitly through the use of language, descriptions of physical appearance and behaviour, and implicitly through accepted cultural conventions. Virtually every element of a literary work may be seen as gendered in one way or another, from the speaker and characters to the plot, setting, genre and the narrative itself. Consequently the

introduction of non-binary identities into literature is perhaps as difficult as their induction into Western society, because readers are conditioned from an early age (through, for example, fairy tales) to assign socially constructed gender roles to characters and consequently internalize them. Even though non-binary identities are not a fictitious literary construct, a society in which “non-binary genders are legitimately acknowledged can seem fictional” (Iantaffi 2017, 291), which is why varied non-binary representation in fiction is of utmost importance for non-binary readers.

The main obstacle to the average reader’s understanding of non-binary or gender-neutral characters is generally their own preconceived notions about the gender division(s). There are now more works available for children with gender neutral characters than ever before,⁵ but Renzetti and Curran’s study (1992, 35) showed that parents, when reading to their children and coming across a gender-neutral character, will frequently present the latter to the child as male or female. In cases when authors take special care not to include any stereotypical defining gender characteristics, parents will mostly interpret the character as male, while female characters are those that implicitly or explicitly exhibit stereotypical female traits. The same applies to science fiction readers who, having grown up with certain patterns of gender-related cultural expectations, are also tempted to read non-binary characters as either male or female. The role of the reader is therefore essential in interpreting and understanding non-normative identities.

One way of addressing this problem may be with the help of science fiction’s special relationship with its readership that is not typical of most other genres. A high level of interaction between writers and their audiences had already begun in the early days of science fiction in the so-called pulp magazines, which accepted and published letters containing readers’ ideas, critiques and suggestions. This was followed by meetings of authors and readers at science fiction conventions in the 1920s and 1930s, and later on by unofficial fanzines that also published alternative storylines written by their readers. This tradition continues today through online contact (blogs, vlogs, forums, specialist websites etc.), which allows authors to be constantly in touch with their readership, and the readers to claim elements of narratives as their own. With the appearance of these immense digital and, most importantly, global, networks, fluid online avatars and online presences, it is also becoming increasingly easier to explain and understand the concept of fluid and non-binary identities.

From this unusual author-reader relationship within the genre stems another feature of science fiction production that is particularly relevant to marginalized and non-normative groups, so-called fan fiction. Readers of science fiction already began to create and publish their own narratives involving pre-existing characters in the 1930s, but the subgenre really exploded with the advent of the Internet in the 1990s. This type of writing enables fans to create parallel literary worlds, simulacra of simulacra of sorts, within which the readership is free to implement any changes they would have liked to have seen in the original work. Sexual orientation and gender identity appear to be among the more frequently addressed and changed elements, with the *Star Trek*-inspired Kirk/Spock stories of the 1970s also providing the name for a specific subgenre of fan fiction called slash fiction (due to the slash symbol between the two names). Slash fiction predominantly deals with erotic or sexual encounters between characters, usually of a homosexual nature, and represents a widespread form of fan fiction that is no longer only limited to science fiction but may include elements from other genres and literary works, frequently even combining them in the form of what is known as crossover writing.

⁵ See e.g. Anne Dewdney’s *Llama Llama Red Pajama* (2004), Robert Heidbrede’s *I Wished for a Unicorn* (2000) or Lisa McCourt’s *I Love You, Stinky Face* (1997).

It was also the readers and their interests that led to the establishment of the James Tiptree Jr. Award for science fiction, dedicated to widening and exploring the notion of gender, as well as the Lambda Award for literary works focused on LGBTQ themes. Both awards have led to the publication of numerous LGBT- and feminist-oriented collections of science fiction works.⁶ There is, then, no lack of useful gender-related precedents within science fiction that the non-binary community could appropriate and make their own in the process of legitimising their gender identities.

1.4 The Role of Language

English, like most Indo-European languages,⁷ is inherently gendered in accordance with a binary understanding of gender, and implicitly reflects the limitations of this. Language plays a vital role in how those who do not fit the norm, be it a gender one or any other, are perceived within the cultural imagination. Much like with gay individuals (see Kuhar 2003), the discourse on gender identity has also gone through various stages and contexts, among which the medical and legal ones play a particularly prominent role (Bergman and Barker 2017, 41). A consequence of this is that most expressions available to non-binary identified individuals for themselves and each other come from sources that use cold, neutral, scientific terms that push the individual into the role of the Other, one who is to be studied for their peculiarity. “We have no playful language, no admiring language, no nuanced language, and no affirming language,” write Bergman and Barker (2017, 41).

They also jokingly add that there “is no trans equivalent of the *Académie Française*” (2017, 42) and the use of terminology that falls under the trans, non-binary and genderqueer umbrellas is consequently complicated, inconsistent and sometimes even contradictory. It is therefore essential that language evolves simultaneously with our ever-broader understanding of gender, and science fiction (and literature in general) could certainly help popularize terminology related to the various distinctions of gender identity, however subtle the differences between them may be.

Science fiction is also often hailed as a genre of innovation, and is well known for its introduction of countless neologisms that often pass into public use. From *robot* in Čapek’s *RUR*, Asimov’s *robotics* in “Liar”, Williamson’s *genetic engineering* and *ion drive* (in *Dragon’s Island* and *Equalizer*, respectively) to the more recent *computer virus* in Gerrold’s “When Harlie Was One” and Gibson’s *cyberspace* in *Neuromancer*, science fiction has perhaps contributed to the world of science and technology in linguistic terms much more than any other. From the 1960s on, with the advent of feminist science fiction and the entry of so-called “soft sciences”⁸ into the genre, exploring

⁶ See e.g. *Daughters of Earth: Feminist Science Fiction in the Twentieth Century* (ed. Justine Larbalestier), *Sisters of the Revolution: A Feminist Speculative Fiction Anthology* (ed. Ann in Jeff Vandermeer), *Worlds Apart: An Anthology of Lesbian and Gay Science Fiction and Fantasy* (ed. C. Decarnin, E. Garber, L. Paleo), *Kindred Spirits: An Anthology of Gay and Lesbian Science Fiction Stories* (ed. J. M. Elliot), *Daring to Dream: Utopian Fiction by United States Women Before 1950* (ed. C.F. Kessler), *Space of Her Own: Twenty Outstanding Science Fiction Stories by Women Writers* (ed. S. McCarthy), *Flying Cups and Saucers: Gender Explorations in Science Fiction and Fantasy* (ed. D. Notkin) etc.

⁷ Slavic languages, for example, in which most parts of speech (nouns, pronouns, verbs and adjectives in particular) are gendered, do recognize a neuter gender in addition to masculine and feminine, yet it is almost never applied to living beings (an exception in Slovenian being *dekle*) or is done so in a derogatory sense (e.g. the use of Slovenian pronoun “ono” to refer to a transsexual person).

⁸ Soft and hard science are (in my opinion outdated and utterly inappropriate) expressions used to distinguish (or, rather, create a hierarchy) between more “masculine” and “real” (i.e. hard) sciences, such as technology, engineering, physics, mechanics or chemistry, and more “feminine” and “not properly scientific” or “exact” (i.e. soft) social sciences

societal issues and performing related thought experiments have become legitimate parts of such writing, and neologisms concerning social sciences should thus be an integral part of that process. We know that science fiction is certainly capable of introducing and popularising new terminology and has, in fact, on certain occasions already contributed to non-binary vocabulary, particularly through the introduction of non-binary pronouns.

Kate Bornstein, in their seminal work *Gender Outlaw* (1994), makes a strong case for the introduction of gender non-specific pronouns, and while this was almost unimaginable at the time of publication, much has changed in the past twenty-five years. Due to their increased usage, particularly online, some non-gender specific pronouns, the honorific Mx., singular use of *they* and the word *cisgender* have already made their way into the *Oxford English Dictionary*. Science fiction, on the other hand, has provided us with many more options to consider. Some of the more recent examples include the use of *ðe* by Melissa Scott in *Shadow Man* (1995), *hir* and *hirs* by Nancy Kress in “My Mother, Dancing” (2000), *ze* in Seth Dickson’s “Sekhmet Hunts the Dying Gnosis: A Computation” (2014) and *velver/vis* in the works of Greg Egan. By continuing to make non-binary pronouns, whatever shape or form they may take, a part of their literary world, science fiction writers can help readers understand existences beyond binaries. However, there are many more as-yet unexplored linguistic possibilities (such as, for example, different registers of gender-neutral communication) for science fiction to consider beyond mere pronouns.

2 Science Fiction as a Platform for Researching Gender Beyond the Binary

Traditional science fiction is rightly seen as a very formulaic genre that caters to the long-standing expectations of its readership, yet is in no way restricted or forced to remain within those boundaries. At first sight it appears to be a genre created by and for men (in the most conventional understanding of the word), therefore focusing on technology and male competence in dealing with it, reducing women to their assistants, damsels-in-distress or mere sexual objects. Yet it is partly due to its seemingly very rigid narrative structures and codes that science fiction is so susceptible to subversion (Roberts 1993, 7), an approach used to question gender hierarchy even in periods when technology-focused hard science fiction reigned supreme, such as in the age of cyberpunk.

The issues of gender and gender division, although often seemingly absent, appear in virtually every work of science fiction, if only through reproduction of the prevailing social norms. When a traditional science fiction author creates their literary world, they generally introduce at least some innovations⁹, elements that differ from what the average Earthling is thought to be familiar with. Yet if everything in these literary worlds were, hypothetically, completely new to the reader, they would find it much more difficult to engage with the text, as well as to compare and contrast

such as sociology, psychology or anthropology. The expression soft science fiction can also refer to plotlines with elements that are not scientifically accurate. The science fiction community has a long history of preferring speculative sciences to speculative societies, but with the increase in popularity of the fantasy genre from the 1990s on, “soft” science fiction is also becoming more appreciated and rewarded (see Nnedi Okorafor).

⁹ Darko Suvin’s *cognitive estrangement* is often quoted as the distinguishing characteristic of science fiction, meaning that the genre contains an element or elements that differ from the reality of the reader (called *zero world* by Suvin, the zero referring to the coordinate system or representing the control group in an experiment), but is/are still somehow cognitively linked to the implied reader’s reality. The diegetic world of science fiction has to therefore resemble our world, yet also differ from it, presenting its readership with a combination of what Suvin calls the *novum* and familiar contexts along with the applicable laws of science.

the two existences, which is why virtually all science fiction works also tend to include known elements and patterns. It would certainly be unrealistic to expect authors to focus on every single aspect of their newly created world(s) with the same meticulousness, yet suspiciously the gender binary often slips through the cracks and remains largely unaffected compared to our own reality.

Unlike fantasy literature, which is ahistorical in nature and does not necessarily concern itself with plausibility, science fiction often deals with concrete reasons for why and how the differences between the science fiction world and our own came to be. A *novum* in science fiction should, according to Suvin (1979), be scientifically plausible (even when not necessarily scientifically plausible in the implied reader's world) and not a supernatural element, which makes science fiction a genre that offers a significantly more reliable platform for studying potential changes in human development than other types of fiction.

Jean Baudrillard (1994, 121) even claims that contemporary science fiction is an example of third order simulacra, meaning that it no longer stems from external sources but is generated from the simulation of itself. This makes it one of the first simulacrous literary genres, which means it has the potential to explore theoretical and practical foundations for potential cultural and societal developments, such as the introduction of non-binary and fluid genders. The boundaries between the real and simulated have become unclear, the simulation is behaving as reality and reality as simulation. Contemporary science fiction therefore becomes “a co-creator of postmodern realities and a source of ontological versions of emerging worlds” (Šporčič 2016, 45).

Science fiction has long been “the place where visions of the future are explored, especially by those who cannot find room in the context of mainstream, academic knowledge production; and where social activists can envision new worlds” (Iantaffi 2017, 291). It is therefore not unreasonable to expect gender and gender variance to be experimented with and examined within different social contexts, thus representing a building block in the establishment of Suvin's cognitive estrangement. However, even a cursory overview of science fiction anthologies and the most prominent and widely-read science fiction of the last century reveals that while individual works may indeed explicitly address gender by experimenting with various perspectives and presenting the reader with more or less complex extrapolations of the present situation, the majority do not pose any gender-related questions whatsoever, taking the binary division for granted and using it as an anchor, a conveniently familiar element taken from our ‘zero world’ to make the reader feel more at home.

The fact that authors often approach the existing gender paradigm as logical and even axiomatic does not, however, prevent such literary works from serving as an important source of information in contemporary science fiction, since “one can trace patterns of masculine frustration and fulfilment that still underlie SF's masterplots, though today they may be better disguised or employed ironically” (Attebery 2002, 13). This phenomenon can be understood as a conspicuous sign of just how deeply rooted our binary understanding of gender is, and how difficult it is for authors and readers alike to imagine and comprehend gender outside the established parameters. The question is therefore not really whether science fiction as a genre has the potential to create texts featuring non-binary individuals in empowering roles, but to what degree the authors have realised and made use of this advantage so far.

2.1 Gender in Contemporary Anglo-American Science Fiction

The vast majority of science fiction works prior to the sexual revolution in the 1960s were written, edited, illustrated and read by a male population that did not concern itself with researching,

critiquing or moving boundaries in terms of established understanding of gender.¹⁰ Exceptions to this rule include writers such as Philip K. Dick, who began doubting the legitimacy and logic of the evolutionary model (as portrayed in the stories of superheroes and superhumans) as early as the 1950s. Such literary works may have been in the minority, but the questioning of the supposed essentialism of the “natural opposites”, as well as the scrutiny of the key principles on which the gender hierarchy and male superiority were founded, appears to have truly taken off in the early 1960s. At this point we can observe female characters becoming physically and intellectually stronger, although they are still in the service of the male gaze.

The binary perception of gender continues to be as strong as ever, but there is a noticeable unease about the imperatives of biological determinism, manifesting itself in examples of science fiction works in which traits traditionally associated with one (primarily male) gender are applied to the other (primarily female). This exchange of female characteristics for male ones (but virtually never the other way around) led to a new breed of female characters: ones that can rival males in at least certain aspects, even though they continue to exist within the patriarchal realm. Despite numerous shortcomings of this approach, the introduction of the “male woman” (e.g. the character of scientist Susan Calvin in the works of Isaac Asimov), can still be seen as yet another step towards transcending the gender binary. Joanna Russ (1980) refers to such writing as “the battle of the sexes”, believing that these narratives expose the fear of female challenges to gender hierarchies (Merrick 2003, 243).

Due to the strengthening of civil rights, feminist, gay and many other movements of individuals whose rights had formerly been neglected, science fiction was also forced to confront societal issues it had previously avoided. It is only in the late 1960s and early 1970s, however, that we can observe a more substantial number of strong feminist science fiction works¹¹ not afraid of challenging the presumption that the role of gender in science fiction is necessarily self-evident (in that it is simply transferred from the binary-obsessed zero world of its readership). Influenced by pulp writing of the 1930s, the authors would create functional single-gender (predominantly female) only societies.¹² These feminist works are often either utopian or dystopian, but their main mission becomes that of functioning as thought experiments, an approach that also enables science fiction to provide its readership with new ways of decoding and manipulating their understanding of gender. The role of science fiction as a playground for thought experiments is, in fact, the genre’s main advantage in exploring non-binary identities and their position within societies.

¹⁰ Eric Leif Davin (2006), however, identifies at least 203 female authors that published over a thousand stories in British and American science fiction magazines between the years 1926 and 1965, proving that the genre was never entirely in the male domain.

¹¹ Among the more visible female writers of the 1960s and 1970s we find E. L. Arch, Marion Zimmer Bradley, Rosel George Brown, Octavia E. Butler, Suzy McKee Charnas, C. J. Cherryh, Jo Clayton, Juanita Coulson, Sonya Dorman, Suzette Haden Elgin, Carol Emshwiller, M. J. Engh, Gertrude Friedberg, Phyllis Gotlieb, Diana Wynne Jones, Lee Killough, Tanith Lee, Madeleine L’Engle, Ursula Le Guin, A. M. Lightner, Elizabeth A. Lynn, Anne McCaffrey, Vonda McIntyre, Janet Morris, Doris Piserchia, Marta Randall, Kit Reed, Joanna Russ, Pamela Sargent, Josephine Saxton, Jody Scott, Kathleen Sky, James Tiptree, Lisa Tuttle, Joan D. Vinge, Cherry Wilder, Kate Wilhelm, Chelsea Quinn Yarbro and Pamela Zoline.

¹² Already in 1931, Leslie Francis Stone published *The Conquest of Gola*, in which a matriarchal society is spared an invasion by men because the would-be attackers simply cannot believe the planet is run exclusively by women. Other examples of feminist utopias include McKee Charnas’ *Walk to the End of the World* (1974) and *Motherlines* (1978), Joanna Russ’ “When It Changed” (1972), James Tiptree Jr.’s “Houston, Houston, Do You Read?” (1976), Joan Slonczewski’s *A Door Into Ocean* (1986), and so on.

I believe that feminist science fiction writing significantly contributed to the establishment and development of gender studies, continuing the curious relationship stemming from the birth of first wave feminism and science fiction, both under the influence of the aftermath of the Industrial Revolution in the late 19th century.¹³ Science fiction's potential for exploring societal issues is then finally recognized with the advent of second wave feminism in the 1960s, with parallel worlds and societies of the future being created with the intention of exploring the possibility of gender roles not being genetically conditioned, but socially. This new generation of science fiction authors began to create and explore new patterns of social interaction and uncovered new identities on the spectrum between the two binaries, in the process attempting to expose gender division as an artificial construct designed to justify and praise hegemonic masculinity and enforce inequitable gender roles.

I would postulate that it is second wave feminism that should be seen as the defining movement with the aid of which (intentional or unintentional) attempts at transcending biological determinism were joined by premeditated experiments, whose aim was also to transcend the binary gender division. Here the readers are finally faced with works in which characters inhabit genderless worlds or societies with gender divisions that differ from the one familiar to us (e.g. in Ursula Le Guin's *The Left Hand of Darkness*, from 1969). There seems to be an almost ubiquitous awareness of gender roles as a socially constructed phenomenon, a theory that is later supported through theoretical work of many female authors of the period (for instance the collection of essays entitled *The Language of the Night* by Ursula Le Guin from 1979). Sociological and philosophical theories from the 1960s also had a great impact on the treatment of gender in science fiction, and individual literary works even begin to toy with the idea that "equality can only be achieved through elimination of biological differences"¹⁴ (Merrick 2003, 247), an idea defended by Shulamith Firestone (1970) and later taken on board by the postgenderists within the transhumanist movement.

2.2 Androgyny – the Game Changer?

Androgynous characters, which appear in many 1970s science fiction works concerned with gender, no longer represent male or female subjects, but both simultaneously, and can be compared to non-binary characters in that they exist in countless variations. The introduction of hermaphrodite or androgynous characters, be they alien or human, certainly helps transgress the established perceptions, yet these two gender identities, at their very core, nevertheless owe their existence to the binary division and the two-gender truth it propagates, or they would not have been able to be positioned in the middle ground between the two "ideals".

While continuing to acknowledge the male and female extremes at each end of the spectrum, the introduction of a gender continuum (still within the binary) also led towards legitimising identities outside the binary, and prepared the ground for later theories on the fluidity of gender. Androgyny, alongside the multiplication of gender and genderless worlds that all began to appear in science fiction more frequently in the 1970s, therefore played a crucial role in the creation of a new perception that takes on the form of a gender continuum.

¹³ Incidentally, it was also in the late 19th century that gender variance and non-heterosexual proclivities began to be scrutinised by the likes of Von Krafft-Ebing (the author of the influential *Psychopathia Sexualis* from 1886), medicalising the discourse of sexual variations for the century to come.

¹⁴ See e.g. Theodore Sturgeon's *Venus plus X*. (1960).

It is interesting to note that Attebery (2002, 130) sees the popularity of androgyny in 1970s science fiction¹⁵ (as well as pop culture) as being primarily influenced by the assumption that most people have more androgynous characteristics than their social roles allow them to express. Four decades later, the previously mentioned Joel et. al. (2013) come to what is essentially the same conclusion by interviewing gender-normative individuals – a considerable percentage of whom, despite their cisgender self-identification, are willing to admit that they are uncomfortable with being seen as representatives of purely one or the other extreme of the gender binary.

2.3 Written on the Body: Cyberpunk

The next step in our attempt to discern a pattern in the development of gender perception within science fiction is the cyberpunk genre. Emerging in the 1980s, it is notable for its ambiguous nature, having grown out of the postmodernist mindset, yet already flirting with epistemologies that were to replace it. Unlike Shulamith Firestone (1970), who in the late 1960s saw recognition of binaries as a way towards elimination of the same, cyberpunk is accompanied by the return of Cartesianism with the intention of underlining the supremacy and threat of (often hyper-masculinised) technology. Up until this point, science fiction was mostly defined in terms of extrapolation of the known, while cyberpunk introduces a new phase of the genre in which science fiction serves as an example of Baudrillard's third order simulacra.¹⁶ In light of Baudrillard's hyper-functionality and the blurring of boundaries between reality and fiction, it is perhaps not too surprising, albeit none the less worrying, that fetishization of masculinity should have made a comeback, as the 1980s were characterised by growing antifeminist sentiment and repopularisation of sociobiological theories.

On the other hand, this outwardly conservative subgenre of science fiction relies heavily on new forms of embodiment and subjectivity, indicating a possible paradigmatic shift in terms of social (and gender) hierarchies. One of the most notable features of cyberpunk is the significantly increased presence of (previously already existing) cybernetic organisms that combine within them many traditionally opposite notions. Cyborgs are hybrids of biology and technology, of human and inhuman, natural and artificial and, in some cases, also man and woman, should the author so choose. Unlike androids and gynoids, cyborgs are not limited by or to copying humans in terms of looks, thoughts or actions, making their potential for transcending the gender binary all the greater. Limitations, however, appear in the embodiment of the cyborg identity, which often takes on a gendered or even a stereotypically gendered form. The importance of the body is immense, because the normative body in Western societies tends to be one of a white, heterosexual, middle class male. The existence of what is perceived as an ideal (or at least standard) body strongly contributes to our inability to think of individuals as potentially non-binary and intersectional.

The cyborg identity of the subject itself does not, therefore, guarantee any crossing of the gender boundaries and is, in addition, surrounded by a multitude of traditionally male-associated elements within the genre (such as characters, plots, themes, settings, etc.), but the joining of opposites and blurring the boundaries between them certainly make the potential of cyborgs of great interest for future endeavours. In addition, “[o]ne exciting feature of non-binary activism”,

¹⁵ See. e.g. Samuel Delaney's "Aye, and Gomorrah..." (1967) and *Triton* (1976), Joanna Russ' *The Female Man* (1970), Marion Zimmer Bradley's *The World Wreckers* (1971) and *Darkover Landfall* (1972), Marge Piercy's *Woman on the Edge of Time* (1976) etc.

¹⁶ For a more detailed treatment of cyberpunk fiction from the perspective of Baudrillard's categories, see Krevell 2012, 55–64.

according to Barker, “is the tendency to challenge and blur other binaries beyond just the gender binary” (2017, 35), which is a phenomenon that can also be observed in cyberpunk literature that promotes hybridity.¹⁷

2.4 Queer Theory and Gender as Performance

Judith Butler is the most prominent scholar among those who cease to address gender as merely a construct, but also see it as performative. According to Butler (1990, 145), gender ontologically operates within political contexts that define it, which is why repetition of signifiers is essential to subverting gender. Preceding Butler’s work are social scientists Kessler and McKenna (1985), who already toyed with the idea of gender as performative in the late 1970s, with West and Zimmerman also exploring the idea of gender as a set of actions in their 1977 (but only published in 1987) article “Doing Gender”. Building on their work, Butler claims that we do not possess any essential, timeless characteristics that would justify the gender binary, since gender is simply an illusion kept alive by the dominant power structures. The oft quoted passage from Butler’s *Gender Trouble* postulates that “[g]ender is the repeated stylisation of the body, a set of repeated acts within a highly rigid frame that congeal over time to produce the appearance of substance, of a natural sort of being” (Butler 1990, 63). In other words, (normative) genders are forced onto our bodies through the act of repetition.

Butler, alongside the likes of Foucault (1994), Parker and Kosofsky Sedgwick (1995), de Lauretis (1987) and others, played a vital role in the emergence of queer studies and theory in the early 1990s. While this particular field of critical theory does focus on homo- and bisexuality, it also pays attention to previously ignored forms of “transgression”, including transgender, intersex and non-binary topics within its analytical framework. According to Warner (in Stewart 2017, 62), rather than defining itself against the heterosexual, queer defines itself against ‘the normal’. By embracing and adapting the post-structuralist view of identity as a multifaceted cluster of fluid positions, as opposed to fixed ones, Queer theory established trans and non-binary identities as flag-bearers of gender deconstruction due to their inherent opposition to the prevalent hierarchical binary divisions, codes and practices.

Many science fiction authors of the 1990s were influenced by both queer and performativity theories. Some of them gave up on attempting to transcend the differences between gendered experiences, and instead focused on alternative points of view presented through their work.¹⁸ This approach enabled them to acquaint their readership with brand new or only somewhat different frames of reference and interpretations of a variety of principles, be they marginal or well established. Many science fiction works began to exhibit greater awareness of how the body and embodiment affect social interactions, leading to the introduction of alien races whose (gender and other) hierarchies are more clearly juxtaposed with our own. The works of this period are thus beginning to prepare the ground for non-binary inclusive writing or even already feature characters that could be described as non-binary.

A good example¹⁹ of this is Gwyneth Jones’ Aleutian Trilogy (*White Queen, North Wind and Phoenix Cafe*), in which the author introduces an alien race that is very reminiscent of Earthlings,

¹⁷ See e.g. Pat Cadigan’s *Mindplayers* (1987) and William Gibson’s *Neuromancer* (1984).

¹⁸ See e.g. Emma Bull’s *Bone Dance* (1991).

¹⁹ Other examples include Ann Leckie’s *Ancillary Justice* (2013) and a collection of short stories edited by Brit Mandelo and titled *Beyond the Binary: Genderqueer and Sexually Fluid Speculative Fiction* (2012).

including in terms of gender division. The aliens' gender, however, has no relation to their appearance or reproductive functions, the only piece of information it conveys is one's self-identification. In other words, while gender does exist in the alien society, sex does not. By introducing a different assortment of gendered traits from the ones we traditionally recognize, authors have the opportunity to examine and question our own gender mythology. Some alien civilizations, such as Jones' Aleutians, alternate between male and female gender pronouns much like some non-binary identified individuals choose to, and their perception and understanding of gender is not always in accordance with what humans might term their sex.

3 Conclusion: Science Fiction as a Tool of (Dis?)Empowerment for Non-Binary Individuals

When Iantaffi (2017, 290) attempts to imagine what the world would look like if humanity were to genuinely adopt a systemic and intersectional approach to gender, he answers that "some of the[ir] scenarios seemed so futuristic as to border on science fiction". This is no coincidence. In addition to stereotype-bound mainstream production, science fiction does have a history of offering non-normative identities a haven within which they could develop and be explored. Indeed, a society within which we are not judged on our assigned gender and gender roles, nor our gender identity or expression, is a utopian dream that can currently only be adequately realised and studied as a thought experiment within the realm of science fiction. Since "we are only beginning to understand (again) and to (re)imagine what a world based on gender diversity might look like" (Iantaffi 2017, 293), science fiction is in a unique position to aid the transition from theory to practice.

As we have discovered, however, science fiction throughout the history of the genre only sporadically heads in the direction of attempting to transcend the hierarchical understanding of gender and experimenting with possible alternatives,²⁰ as the cultural and historical contexts surrounding the texts weigh heavily on them, particularly when it comes to a binary understanding of gender. Each period that produces more than a handful of relatively courageous ventures, which deviate from the established code and introduce worlds that perceive gender differently, seems to be immediately followed by not only a re-emergence of the essentialist approach, but also the return of a strengthened binary division. This phenomenon can be traced back to as early as the first decade of the 20th century, when Roquia Sakhawat Hossain (in "Sultana's Dream", 1905) and Charlotte Perkins Gilman (in "Herland", 1915) in particular raised the stakes with their revolutionary utopian writing. They were later joined by the likes of Clare Winger Harris and Gertrude Barrows Bennet, who told their stories from a female standpoint and were among the first to focus on questions of gender and gender identity. Instead of embracing these "new" approaches, science fiction promptly returned to its hyper-masculinised and sexist roots with the advent of pulp writing, and later the introduction of supermen.

With the counterculture of the 1960s also came a new era for the Western understanding of gender, a period in which a coherent, homogenous humanist subject began to slip away and had to make room for the fluid and limitless postmodern subject. An important legacy of the era, the division between sex and gender, once seen as a victory over essentialism and biological determinism, may now represent a problem, rather than a solution, in terms of legitimising

²⁰ For a more detailed overview of the history of gender within the genre see Roberts (1993), Attebery (2002), and Šporčić (2016).

the experiences of some non-binary individuals. Not even the androgyny of the 1970s could provide a satisfactory solution to this problem, being varied and fluid within the gender binary, rather than outside it. Cyborgs, as cyberpunk's main contribution in this respect, are also too strongly linked to their Cartesian, patriarchal origin to be truly able to use gender hybridity for ontological development.

Moreover, while both queer and Butler's performativity theories look promising in this regard, they are often extremely difficult to apply to everyday life (or, for that matter, fiction), as they inhabit rather abstract spaces and do not necessarily concern themselves with putting theory into practice (Stewart 2017, 65). Non-binary individuals facing prejudice, inequality and even violence in their daily lives require more than mere awareness of the fact that their bodies and identities may be used as weapons in the fight against gender normativity. In this they do not differ from other gender or sexual orientation minorities, whose activism in the last century has put a lot of emphasis on visibility and representation, primarily because of the important shift in social consciousness that they tend to generate. It is important to show diversity in terms of gender and sexuality in order to resist emerging or already existing stereotypes about non-binary identities as homogeneous.

Just like other forms of media, (science) fiction can also contribute and help non-binary individuals by including a variety of non-binary characters in its narratives. Not only can this prevent non-binary identities from being seen as obscure or even non-existent, but it also provides representations for non-binary people themselves to relate to, potentially leading to affirmation and an increased feeling of self-worth (O'Brien 2017), both of which can be negatively affected by the lack of relatable representations in the surrounding environment. With non-binary activism also strongly favouring an intersectional approach²¹ to representation, there is no lack of possibilities when it comes to including non-binary characters in works of fiction. In fact, acknowledging the intersectionality of identities makes it much more difficult to categorize them in theory than it does to feature their (although countless) representations in literary form.

The main issue with the existing science fiction production that deals with questions of gender, be it from the beginning of the 20th century or more recent publications, is that the authors, in most cases, exhibit a tendency to ascribe non-binary gender identities to alien races, automatically pushing them into the inferior category of the Other. "To consider one's body not as an object or thing but as a site or place where meaning is produced" (Stewart 2017, 61) is not easy to do in practice, which is why representation and visibility are of extreme importance. And when they come accompanied by the baggage of playing the Other to the human race, the message to a non-binary readership can only be bitter-sweet, as the non-binary characters in science fiction, despite apparent representation and visibility, are often unable to fully serve as sources of empowerment for anyone wishing to identify with them.

That is why non-binary readers may be forced to, at least initially, follow in the footsteps of female readers of pulp science fiction from the 1930s. The images of scantily clad women on the covers of pulp magazines may well have been created with the male gaze in mind, yet the drawings could still be seen as empowering to women due to their proto-feminist potential. The presence of female monsters, sorceresses, giantesses, alien queens and so on alone, regardless of whether they were portrayed as evil and ultimately defeated in the story, introduced the idea of

²¹ See Crenshaw (2018).

“women with male characteristics” (strength, ability to rule, military prowess, etc.). Together with the innocent and (usually intellectually and physically) inferior hero’s assistant, the female “monsters” inadvertently offered the readership a much wider spectrum of femininity than previously presented, while continuing to play the role of the Other.

The genre certainly contains an abundance of stereotypical portrayals in terms of gender, and if it is ever to take on what O’Brien (2017) calls the “burden of representation” it is vital that it should portray as wide a spectrum of characters as possible, in terms of not only gender identity, but also race, class, sexual orientation, dis/ability and the like. Intersectionality is perhaps one field in which individual science fiction works, thanks to authors like Octavia Butler or Andrea Hairston, have done a somewhat better job than those in many other genres, media or indeed Hollywood productions, with their whitewashing and portrayal of non-normative individuals almost exclusively as protagonists in sob stories revolving around their supposedly life-defining non-normativity.

Iantaffi (2017, 294) writes how “one of the potential future directions of non-binary gender identities” may be “to truly dismantle cisgenderism; to question the assumed essentialism of masculinity and femininity as natural polarities; to consider our complex, intersectional bodies and lived experiences; and to engage with a different framework of genders altogether”, while Stewart (2017, 67) describes non-binary lives as “offering a perspective that is powerful, rich, and exciting; indeed, non-binary people are carving out a pathway of possibilities that are currently relatively unexplored, they/we are the avant-garde of gendered existence which is shifting the landscape of gendered possibilities.” Indeed, another literary genre whose tenets so wonderfully overlap with the goals of the non-binary community would certainly be hard to find.

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