Post-Gendered Bodies and Relational Gender in *Knights of Sidonia*

Roger Andre Søraa

Abstract: This paper analyses representations of non-binary bodies in the animated television series *Knights of Sidonia*. For some time, posthumanist and gender studies have used the gendered body of the future in television series and other media as a framework to reflect on contemporary human bodies. How are bodies imagined and experienced in this animated TV series, and how is our understanding formed by these representations? I argue that the bodies in *Knights of Sidonia* can be understood as "post-gendered", which I analyse in relation to understandings of future gender representations drawn from science fiction.

The main case study is the character Izana who, in the first episode, proclaims an agender identity that is biologically sexed as neither male or female. Izana's biological gender is presented throughout the series as relational: it changes in response to the character they are in love with. A close viewing and analysis of the two seasons released so far shows that, although Izana is initially presented as a character with an alternative third gender, their transition to female reinforces a heteronormative view of sexuality, as their attraction to a male character, Nagate, pushes them to develop female genitalia. This biological sex change prompts Izana to also develop a female gender identity, which I conceptualise as "relational gender". Although it initially represents gender in a novel manner, the anime partly reinforces traditional gender norms.

Keywords: Post-gendered body; Cyborg anthropology; anime; relational gender; posthuman sexualities

The Gendered Bodies of *Sidonia*

How can representations of gendered bodies in science fiction contribute to a deeper understanding of how bodies are constructed and gendered? Posthumanist and gender

researchers, most notably Haraway ("Manifesto"), Braidotti, and Hayles, have long used the gendered body of the future in fiction as a conceptual framework to reflect on contemporary human bodies. Such reflections on representations of gender come vividly to life through popular culture, especially in science fiction. The topic of gender in science fiction has gained renewed research interest in works such as Melzer's *Alien Constructions,* Attebery's *Decoding Gender in Science Fiction*, and Hellstrand's "Normative Body Identity in Science Fiction", which gives a techno-science discussion of readers' relation to alien ideas in science fiction.

Heinricy has described Japanese animated series (*anime*) as "a particularly rich medium for exploring cultural attitudes towards the posthuman" (4). This paper uses the anime *Knights of Sidonia* (originally *Shidonia no Kinshi* in Japanese and hereafter abbreviated "KOS") as a case study of these questions. The series is based on a Japanese comic-book series (*manga*) created by manga artist Tsutomu Nihei, which was published from 2009 to 2015. The first season of KOS was released on Netflix in 2014, with a second season released the following year.

The series is set in the year 3394. Approximately 500,000 humans have fled Earth in a spaceship called the *Sidonia* after the planet was attacked by a gory, shape-shifting alien race called the *Gauna*. Biological entities striking back at technologically advanced humans has been a recurring theme in anime, such as in the popular Studio Ghibli anime *Nausicaä of the Valley of the Wind*. In KOS, this dualism is depicted in a gendered fashion through "a masculine fantasy of rational society, of 'clean,' controlled technological reproduction versus a maternal, embodied, non-hierarchical sodality, an anti-culture" (Johnson 198). In her study of KOS, Ohsawa concludes that "all the characters are posthumans though they are living as human beings", which might prompt a reflection on the human versus the posthuman as concepts (192). Are all future humans posthumans, or is there a particular threshold of when something is posthuman, specifically in relation to human conceptions of sex and gender?

Hayles writes that "the posthuman is an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction" (3). This could also be said for the characters in KOS. Aboard the *Sidonia*, the remnants of humanity are far from safe from their alien enemies, as the Gauna continuously pursue them through space. Living in such harsh conditions can spark extreme societies, as Williams shows in his analysis of communities on the moon in science-fiction works. In this paper, I will treat posthumanism as a concept more in line with transhumanism, connecting it to an understanding of drastic changes of human bodies in the future. However, there are multiple ways of reading and using posthumanism as a concept; for example, in a critical contemporary manner (Wolfe).

The series contains numerous examples of posthuman topics such as genetic engineering, cloning, digital immortality, and human photosynthesis, as well as some strikingly original post-gendered characters. One of these characters is Izana Shinatose. Izana's only known family is Yuke Shinatose, the Head Science General of the *Sidonia*. The series hints that Izana may potentially be a clone of Yuke based on the available technology and their similar appearances. Izana is introduced in the first episode as a "hermaphrodite third gender" with the ability to become male or female after selecting a mate.

Although Izana initially does not have a love interest, eventually, they fall in love with the main character and male protagonist of the series, Nagate Tanasake, leading them to become female. This "relational gender" development between Izana

and Nagate will be explored in the paper. However, as Izana has existed in this third-gender space up to this point, their transition to a female allows for an examination of both novel and traditional gender roles as imagined in this posthuman setting. This initial third-gender identity can thus be understood as independent of biological sex and traditional conceptions of gender identity and expression; the fan-maintained Sidonia wiki initially describes their gender as "non-binary" and later as "female" ("Izana Shinatose"). The character, by being androgynous, agender, and queer and having multiple trajectories for their own sexuality and even body features, begins to embody an exemplification of what a post-gender individual can be; moreover, within KOS, heterogeneous components are used as a framework to show how social constructs can be shaped through fictional challenges to (and, in some cases, maintenance of) heteronormativity.

This research is methodologically based on critical qualitative media studies. I engage in a close viewing on the series in question and analyse Izana's gendered body as it is presented and as its representation changes over the two seasons. I have elected to use the non-gendered pronoun "they" when referring to Izana. The awkwardness of such pronoun usages (at least among English speakers not used to interacting with non-binary individuals) showcases some of the challenges of the English language when writing about non-binary gender(s), whereas in Japanese this would not be strange, since Japanese relies less on gendered pronouns. All quotes are taken from the official English subtitles.

The manga book series *Knights of Sidonia* is ongoing, and the material for further anime episodes is thus available. Based on the popularity of the series, new seasons may be forthcoming. This paper analyses the anime series to date without directly addressing the manga. This is particularly due to the fact that anime has the extra dimensions of sound, movement, and color that make the gendered dimensions of the characters more explicit. Drawing androgynous characters is easier when there is no sound added; for example, Ohsawa shows how Tsumugi gains an uncanny aspect when voice is added in the anime (199). In the next section, I will explore what makes this character post-gendered, which I use to mean future gender representations working in synchronicity with existing gender terms to showcase multiple trajectories of what a post-gender individual can be, with components shaping social constructs of gender specifically, as distinct from the broader term "posthuman".

Posthuman Gendering of the Body in Anime

In *Simians, Cyborgs and Women: The Reinvention of Nature*, Donna Haraway, working in the context of socialist feminist subjectivity, shows how the posthuman body can be understood by using the concept of the *cyborg*, an amalgamation of a biological organism and technology. She suggests using the cyborg as an "imaginative resource" when discussing social and bodily reality (*Simians* 150). This imaginary resource has been expanded upon in fiction, where the merging of humans and machines is often portrayed as resulting in ethical conundrums (for example, the films *Ex Machina, Metropolis,* the *Matrix* series, and the *Terminator* series).

I have discussed this dichotomy between bodily sex and social gender in machines in "Mechanical Gender: How Do Humans Gender Robots?"; I show that humans tend to have more of a need to gender robots the more anthropomorphised they become. The cyborg concept has spawned its own research tradition of *Cyborg*

Anthropology, which discusses the intersections of humans and machines, and what might happen to human characteristics in a posthuman world.

Building on the cyborg concept, in the introduction of her book *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*, Hayles discusses how gendered bodies relate to the erasure of embodiment – which she exemplifies this in the Turing Test, a well-known concept in science fiction – and the merging of machine and human (xi). Hayles's erasure of embodiment in the context of cybernetics and information science is perhaps more digitalised than the roboticised cyborg-organism of Haraway, although they both share a human-machine symbiosis.

This human-machine interaction is becoming increasingly prominent in contemporary society, which is heavily affected by science-fictional representations of technology. As a cultural phenomenon, Japanese robots and gendered representations have received increased research attention (Robertson; Søraa) and comprise one of the areas where cyborg posthumanism is consistently pushing boundaries in contemporary society. How the technology of the future is imagined can inspire current technological developers according to the theories of socio-technical imaginaries (Jasanoff and Kim), while at the same time affecting how gender and gendered technologies are imagined. Heinricy also argues that popular culture has an important impact on cultural attitudes towards technology (5). If technologies are portrayed in a positive light, society might be more willing to accept them, but if they are portrayed as dystopian, society might be more reluctant to domesticate them. An example is how human-robot affection is currently portrayed in contemporary films and series such as *Her* and *Westworld,* showing complex human-machine love relations. Romantic relations to and through technology have traditionally been contested (e.g. the public perception of internet dating, which was initially portrayed as quite disturbing, even transgressive).

Posthuman gendering is analogous to contemporary discussions of third-gender and intersex studies (Butler; Gough et al.; Turner). Some intersex activists advocate a post-gender position, proposing that intersex children do not have to binarily choose either male or female; they view intersex individuals as a vanguard of post-gendered rejection of the gender binary. In queer phenomenological studies, Ahmed observes how bodies orient themselves in the lived space. She finds that bodies that fail to orient, thus creating "queerness", which has a different denotation from post-gender in that it relates more closely to already existing gendered realities; this is, however, not a dichotomy, as bodies can be both post-human and queer at the same time.

Science fiction, on the other hand, is free to redevelop gender identities from scratch (although certain presupposed genre traditions may play a part in this creation). In her thesis *Changes in the Conceptualization of Body and Mind in Japanese Popular Culture, 1950–2015,* Yuki Ohsawa has thoroughly analysed different posthuman body representations in anime such as KOS. Although Ohsawa focuses primarily on the character Tsumugi, a human-Gauna hybrid and another love interest of Nagate, she does have some observations on Izana:

> Sidonia describes diverse sex and sexuality, in the queer sexuality between the non-sexed/ambi-sexed person, Izana, and Nagate. Illustrating characters such as these has a lot of potential to challenge normative conceptions of sex, gender, and sexuality (though I must point out that Izana's sexuality, while interesting, is nonetheless absolutely heterosexual, which to some extent limits the queerness of Izana's depiction). (193)

This absolute heterosexuality will be challenged in this paper, as I argue for a queering of Izana's apparent heterosexuality. Posthuman sexualities are perhaps not that closely tied to the body as contemporary human societies would have it, and this is where science fiction can provide interesting thought experiments. Japanese science-fiction anime provides a rich literature within which posthuman research has been conducted, such as in body representations in the famous anime *Ghost in the Shell* (Napier; Orbaugh), science-fiction cyborg bodies in anime of traditional Japanese puppet theatre *Bunraku* (Bolton), and the relation between space, body, and aliens (Mari and Nakamura). Japanese anime is accustomed to challenging contemporary gender norms, as can be seen through the *yaoi* and *yuri* tradition, where non-heterosexual couples are vividly described. Science fiction can also be an important outlet for experimentation with sexualities that might not be possible in contemporary societies where, for example, same-sex marriage may not be allowed.

Izana's Body

How do physical body representations affect a gendered understanding of a person? Izana is taller than the average female but shorter than the average male in the series (not counting human-alien hybrids). Izana has a slim build and a bob haircut. Upon meeting Nagate for the first time in the first episode, Izana recognises that their gender will be perplexing:

> You're wondering which one, right? Am I a boy or a girl? I'm neither. I guess you didn't know living underground, but there are genders besides male and female now. It doesn't matter who my partner is for conception. When I choose one, my body changes on its own. ("Commencement" season 1, episode 1, 15.13)

Izana does this in a quiet, calm and academic manner, as if explaining to a child how to use cutlery. The series's pilots and cadets wear gendered uniforms. Males are shown wearing long pants, short boots, and pockets on their thighs. Female uniforms feature longer boots and often skirts with a "breastplate armor" which genders the character as female. Izana does not wear either uniform, but rather a mix between the two, adding to the androgynous features of the character (Figure 1).

Figure 1. Illustration of Izana in their
uniform (Imam Subekti, used with
permission).
https://www.deviantart.com/cemungudh/a
rt/Izana-Shinatose-456761422

One defining characteristic of the world imagined by KOS is that humans lack the ability to become pregnant, instead using cloning to reproduce asexually. Thus, the series provides another example of the trend identified by Haraway ("Manifesto") in which future societies are conceived as being post-gendered, using technological means to accomplish what had previously required biological processes, such as reproduction. Haraway's post-gender discussion does not necessarily lead to the obliteration of gender (most of the characters in KOS are, after all, gendered in the conventional sense). However, it can result in the conception of a world where gender is not an essential force around which either society as a whole or individual lives are structured. In such an imagined world, Izana can transform from having a posthuman, gender-fluid body to a normatively embodied gender expression by means of a relational gender transition and bodily augmentation. This posthumanism, while comparable to Haraway's thinking, can also be employed when analysing different societal groups in addition to sexualities.

Another example of this imaginary in KOS is that military roles are not accompanied by the gendered stereotypes one might expect. Women are not imagined to be any less militarily capable than men; a fighter pilot is just as likely to be a woman as a man – although traditional female roles such as nurses are still portrayed as being carried out by female staff. Such a world where gender remains but in which it has a different significance allows space for characters such as Izana to explore novel gender arrangements. According to Ohsawa, Izana is an "ambi-sexed person":

> For example, if Izana takes the male Nagate as a partner, Izana will become a female. But, when Izana has a female partner, Izana's body becomes male. At the beginning of the story, Izana has both maleness and femaleness, masculinity and femininity. So, Izana's sex and gender are very ambiguous. (186)

This ambi-sexed concept has been explored in feminist science fiction, such as in Ursula K. Le Guin's novel *The Left Hand of Darkness*, where a human is sent to explore a newly discovered planet called Gethen. The inhabitants on Gethen are ambisexual, with no fixed gender, resulting in a society that is not configured around gender. This poses a challenge for earthlings who, with their binary conception of gender, are so used to a gendered society that they are utterly perplexed by the Gethen society, while the Gethen view the humans as perverse. The Gethen society, however, does employ gender as an ordering characteristic during their mating season. This is a parallel to Izana's transition, which is tied to romance and the potential mating this might entail.

Hayles shows how a homophobic society can enforce its gender policies on its citizens, using the example of Alan Turing, who had to take hormone treatments to cure his "homosexual disease" (xi). In contrast, little is said in the series about how Izana's post-gendered body affects the other citizens of *Sidonia* (besides Izana's love interest, which is discussed in the next section). Even if its status as a non-issue can perhaps be tied to the more pressing issues of fighting gargantuan flesh-eating aliens, the lack of gender controversy in Sidonian society is noteworthy. Johnson describes KOS as strictly materialistic, "a rigorous thinking-through of life under the most biologically diminished conditions – call it a cyberpunk ecology" ("Manga" 113). This is similar to what Ohsawa finds when analysing the inseparability between body-mind relations, showing how the character cannot escape gender (193). It is worth noting the language that is used in the series. As Ohsawa notes, Izana uses the Japanese pronoun "*boku*", which partly expresses masculinity, whereas in the dubbed English version, Izana simply uses "I", which is gender-neutral (187). This shows how languages can signal gender quite differently. Another example is the English binary "girlfriend/boyfriend", whereas Japanese has the gender-neutral "*koibito*" ("lover").

In Season 1, Izana's body and sexuality are not featured much, as Nagate is busy with another love interest, Hoshijiro Shizuka, a human female. After Shizuka dies horribly in the season finale, Izana becomes one of Nagate's main love interests in Season 2. After Nagate is thrown out of his apartment, he stays overnight at Izana's place and eventually they move into a new, larger apartment together. It is through this period that Izana undergoes their "gender transition" from agender to female in terms of both biology and identity.

As Ahmed advocates in *Queer Phenomenology: Orientations, Objects, Oothers*, "being oriented" is about feeling at home. Izana has in this example found a physical home with Nagate, but Izana's body has also "found a new home" by developing to female. As can be observed during their first meeting, Izana is quite calm with the fact that their gendered progress is quite deterministic: 1) Find a mate, and 2) Develop to male or female, according to the mate. However, the heteronormativity is not completely clear here. It is not stated whether or not Izana would have transitioned to male if, for example, they had fallen in love with a gay male (which by all means could have been a valid anime storyline, as LGBTQ+ romances are increasingly popular, see e.g. *Yuri!!! on ice, Uragiri wa boku no namae wo shitteiru,* and *Loveless*).

Izana's transition becomes especially apparent to viewers in "Rumbling" (season 2, episode 7), when Izana is faced with a suit that does not fit them anymore. Despite being given multiple warnings by the suit, Izana continues to wear it due to an important imminent mission against the Gauna. This results in their suit practically bursting at its seams while floating behind Nagate through a shaft on their way to their combat stations (causing the shocked Nagate to bump his head on a metal door). Izana is rendered naked in front of Nagate, making it again apparent that the transition is complete. Izana is, in this example, projecting what Ahmed describes as "disorientations", a bodily sense of losing your place, an eerie sense that something might be somewhat wrong, i.e. disoriented.

Izana's life is chaotic because their body is undergoing its transition at the same time as Izana is experiencing a chaotic transition in other facets of their life. This is similar to contemporary trans-issues seen by Salamon, who problematises how the experience of having a material body leads to epistemic truths about sexuality, identity, and gender. In *Assuming a Body: Transgender and Rhetorics of Materiality,*

Salamon discusses how transgender might not primarily be about material change, but also about phantmastical being.

Izana is not only transitioning from non-gendered to female during the series, but also from a human to a cyborg. An encounter with a malignant Gauna costs Izana a right arm and left leg, which are replaced with robotic limbs. Izana's hand in particular provides an advantage, as it adds a set of ten fingers. Through this "second transition", Izana is becoming closer to Haraway's concept of a cyborg with its inherent sociological consequences.

Thus, Izana has not only gone through a posthuman gendered transition, but also a posthuman mechanical transition. This is a moment in the series where Izana's body is undergoing one posthuman transition by receiving artificial limbs. However, one can argue that Izana already had a posthuman quality, due to their ambiguous cloning birth and relational gender. The new prosthetics give Izana a significant combat ability. Closing their eyes allows Izana to see Gauna from a far greater distance than anyone else, making them a much more valuable military asset. One's military capability is an important character trait in the series and highly tied to the characters' jobs.

One aspect of posthumanism's obliteration of traditional gender stereotypes is the non-gendered jobs that the characters have. Izana, Nagate and Shizuka are all pilots, which seems to not differ much between males or females; the head scientists are an immortal woman (Izana's grandmother Yuke) and a resurrected mad male scientist kept alive through bio-engineered parasites, who uses worms to control bodies (Ochiai). The captain of the ship is an immortal woman (Kobayashi), only answering to an "immortal council", which she eventually has assassinated. The head nurse of the ship is a female bear (Lala). Although this applies a novel view of animal cyborgs, it still presents nursing as a gendered profession, as the nurses in the series are primarily female. Had the series been representative of a stricter, more traditional set of gendered stereotypes, Izana's gendered body might have been more contested. But, since it doesn't matter if one is a male or female pilot, Izana's transformation does not lead to conflict, at least not concerning their career path. The glass ceiling in KOS is not bound by gender, but rather by immortality and access to cloning technology.

This gendering through technology disturbs the traditional heteronormative matrix. When technology becomes the arena of sexual reproduction e.g. through cloning, binary? sexuality has the potential of losing its ability to govern societies in the alternative worlds that science fiction can portray. Izana's body is not initially tied to reproductive ability, and Izana themselves was not conceived in the normal biological sense, but through cloning. What does affect Izana's gendered body, however, as the next section discusses, is the relation to other characters, especially Nagate.

Developing Gender Through Relations

Representations of gendered bodies in science fiction can show novel ways of constructing and thinking about gender. In KOS, Izana's gendered identity was, as explained in the first meeting with Nagate, "neither male nor female" and dependent on a chosen "partner". This apparently applies biological sexes, gender identity (the gender[s] Izana identifies with personally), and social gender (how society genders Izana). To understand the triple gender identity being developed in this posthuman

gendered setting, one must understand the relations between the characters. In season 2 it is revealed (after being hinted at in Season 1) that Izana's chosen partner, the most important relationship for consideration in this paper, is the main character of KOS, Nagate Tanikaze.

The story's development around Nagate follows a traditional hero's path. Nagate, trained in the underground by his grandfather, enters the surface area of *Sidonia*, where the richer population lives. Due to his exceptional piloting skills, and a special interest that the ship's captain takes in him, Nagate is soon promoted to pilot. Through his journey, he becomes close friends with Izana, who acts as a guide to the upper levels of Sidonian society, both in exploration and in relaxation activities. It becomes apparent that Izana develops feelings for Nagate, (e.g. when girls flirt with him, especially Season 1's female protagonist Shizuka, Izana gets jealous and angry). Nagate is, however, quite oblivious to the romantic gestures going on around him and prefers to focus his affection on food. In fact, since Izana, Shizuka, and most other humans have developed photosynthesis and gain energy from starlight, Nagate must eat much more often than anyone else.

Just as Izana's gender is fluid throughout the series, Nagate Tanikaze's sexuality is a moving target. As Ohsawa writes: "Tanikaze's sexuality is neither normative heterosexuality, nor homosexuality, but queer sexuality. In fact, his sexuality changes through the development of the story" (186). Not only do Izana's sexuality and gender develop in accordance to their relation to Nagate, but a mutually developing relation of sexualities encompasses Nagate as well. Izana is shown throughout the series to only have feelings for Nagate, but he has several different love interests. The two most notable are Shizuka Hoshijiro and Tsumugi Shiraui, who both actually share some genetic components.

As noted earlier, Shizuka was the main female character of Season 1, and Nagate's main love interest. Being highly skilled pilots, Shizuka and Nagate are sent on numerous extremely difficult missions together, one resulting in them being stranded in a small spaceship far from the main ship *Sidonia*, apparently doomed to die in space, but together. The situation reaches the point where Nagate, not being able to photosynthesise as Shizuka can, has to drink her distilled urine to survive. After they are saved, their romance grows, only to abruptly end when Shizuka is killed by the Gauna on a mission. Izana, however, takes up the mantle and becomes the new main love interest early in Season 2.

Izana's female-gendered identity was indirectly hindered by Shizuka. Although Izana started to develop feelings for Nagate as well as a female body, it seems a full transition could not occur when Nagate was otherwise romantically occupied. However, with Shizuka dead, Izana was free to develop a female identity, although this was hindered by Shizuka after her death, due to the Gauna's advanced resurrecting abilities. After killing Shizuka, they somehow managed to recreate parts of her in Gauna-human hybrids, one being the series's archenemy *Benisuzume*, a blood-red deranged version of Shizuka, intent on terminating all humans.

Part of this resurrected hybrid is in turn captured by humans, and, by advanced bio-genetic manipulation, they manage to create their own "female" hybrid, Tsumugi Shiraui. Tsumugi, although a giant bio-mecha war-robot (hundreds of times larger than a human), becomes another one of Nagate's love interests late in Season 2. Tsumugi's physiology allows her to have a moving "tentacle" that serves as a human-sized avatar that can extend and follow Nagate and Izana around *Sidonia* (at one point actually moving in with them). Although the giant bio-mecha Tsumugi is stationed in

a war-preparation hangar, her avatar tentacle can extend through the pipe system, and socialise with Tanake and Izana.

Although Nagate shows much affection towards Tsumugi, even ignoring Izana, Izana holds no grudges against Tsumugi. This might be because Tsumugi is a different species, and thus not as much a threat to Izana's relationship with Nagate as Shizuka, a fellow human, might be. Tsumugi, as a non-human, might offer another challenge to expected relationship norms by questioning the primacy of monogamous couples. Expectation about the nature of aliens and how humans relate to them has also been explored by Helford, who, in her article on Stanisław Lem's *Solaris*, argues that human explorers must expect the unexpected when trying to meet aliens. Some posthumans are more posthuman than others, and it appears that alien relationships might pose less of a threat to human relationships when the human characters perceive the posthuman characters as quite alien.

Previous research on KOS has focused more on Tsutomugi; this includes both the work of Ohsawa, who studies her as an example of "ontological queerness – a hybrid between a human and a plant" (40), particularly her development of self, and the perspectives of "Cyberpunk Ecology" (Johnson, "Nihei Tsutomu", "Manga", and "Abjection"). As an intersection between biology and technology, the character makes for an interesting read. In a gendered context, the tentacle is described by Johnson as "a congeries of genitalia, visually speaking, a marvel of multipurpose biological design – at once oral, vaginal, anal, and phallic" ("Abjection" 70).

In the world of posthuman bio-mecha robots and alien-possessed ex-girlfriends, perhaps the gendered identity of Izana as "just" agender, in the series' beginning, and then followed by a queering process, is not perceived as strange in comparison. The real weirdness apparently lies elsewhere. In the first episode, before talking calmly about Izana's third-gender identity, Nagate is, for example, dreading the possibility of being labeled a "sub-human" and "unwanted", and thus sent to the human fertiliser facility. In a posthuman world the concept of gender is perhaps not as dangerous as the perilous nature of social status.

Whereas most characters in *Sidonia* are driven by the ambition to survive against the Gauna, Izana is driven more by love. Izana constructs their identity through their gender – that is, an actual gendered identity – by falling in love with Nagate. The reasoning for falling in love is thus tied to the development of Izana's body as male or female. At the same time, love is generally portrayed as a bittersweet and even dangerous feeling in *Sidonia*. When characters, especially pilots, fall in love, it gravely affects their job. A great many pilots in KOS actually die either because they are trying to save someone they love who has been captured by the Gauna or because they are distracted at a crucial moment by thinking about their loved one. However, in addition to being a mental process, Izana's love is tied to bodily transitions. In the posthuman future that KOS depicts, gender can be developed through relations, and, as Ahmed discusses, those with whom one inhabits spaces have a great impact on how one's own body inhabits spaces. This shows an intricate relation between gender, technology, and societal structures. As with Haraway's concept of the cyborg, there are inherent sociological consequences:

> ... theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is our ontology; it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centers structuring any possibility of historical transformation. (150)

Using gendered bodies to reflect on the cyborg concept, gender can be used as a conceptual tool to understand what makes us human, and what imaginations of future societies, lives, and structures can imply for personal identity – here exemplified through different conceptualisations of gender identity. If we, as Haraway writes, are already cyborgs, the future of intertwined trajectories of science and body, technology and being, and individuals relating to societal structures in novel ways will be an exciting time.

Further Considerations of Post-gendered Bodies

This paper has discussed the concept of *post-gender* which has been theorised in relation to understandings of future gender representations of posthumans in the science-fiction series *Knights of Sidonia*. By looking specifically at posthumanism in relation to conceptions of sex and gender, this paper has explored how contemporary conceptualisations of sex and gender are radically challenged through media representations, allowing for a richer discourse on how gender can be understood in future cyborg realities. The paper has also explored whether all future humans are posthumans, or if there is a particular threshold that determines when something is posthuman, specifically in relation to concepts of sex and gender.

The KOS anime can be useful for understanding non-binary and intersex individuals in contemporary societies, as these individuals might also have a certain posthuman quality to them – e.g. qualities that go beyond the human status quo as perceived by society. As I have shown in previous research (Søraa), the more humanoid a robot becomes, the more gendered it becomes. However, within the context of science-fictional explorations of posthuman gender, there is a different possible trajectory, as science and technology allow the cyborg body to be agendered – as long as it is independent from romantic relations.

KOS has not been confirmed as completed; thus Izana might continue to develop a gendered identity beyond what this paper has described. However, despite showing a somewhat cis-gendered normativity in Izana having to become *either* male or female to further develop their body, Izana does represent a "tacit queering" of the series. Not being able to retain an agender identity shows that a transition is forced upon the character. This is perhaps best demonstrated through Izana's love interest with Nagate, who also likes Izana when Izana is agendered. As Ohsawa writes, "representations of queerness operate to help us accept any kinds of sex, gender, and sexuality" (187). Gender in this science-fiction work is determined when connecting with a romantic partner and is predominantly heterosexual.

Although Izana is presented as an androgynous character, their transition to female reinforces a contemporary heteronormative view of sexuality. Izana's attraction to the male main character, Nagate, pushes the character to develop female biological genitalia. This biological sex-change of the until-then sexless character prompts Izana to also develop a female gender identity. Although Izana at one point becomes a mechanical cyborg through the replacement of their lost arm with a robotic arm, Izana does not adhere to Haraway's conception of a post-gendered cyborg. Izana's gendered body and mind develop in reverse of what Haraway imagines – that of gendered bodies transitioning into a posthuman, non-gendered state. On the contrary, in KOS, gender is developed to fulfill an important part of *human* identity: love.

Concerning Izana's body and phantasmagorical identity, when is the posthuman threshold breached? Is Izana transitioning to the posthuman through their relational romantic involvement with the cis-male gendered Nagate? Or is it perhaps while receiving the artificial limbs? Or, perhaps Izana was posthuman before, simply due to an ambiguous birth and gender. Although the anime begins with Izana representing gender in a posthuman science-fiction context of agendered individuals, the anime ultimately reinforces some heteronormative gender norms from which it had initially broken away, particularly concerning the issue of Izana's sexuality.

However, even while engaging in this reinforcement of heteronormativity, Nagate's character is at the same time representing a queer sexuality. He loves people of multiple genders and races: he falls in love with both female and agender humans as well as giant fleshy aliens with their own alien gender(s). This tacit queering is subtler than Izana's sexuality and makes their relation a posthuman gender conundrum.

A post-gendered individual will thus not necessarily be conceptualised as an external component, but rather work in synchronicity with existing gender terms, as does the character Izana Shinatose. Izana is presented as an androgynous and agender person in the beginning of the series, but through a relationship with another person they develop more queer characteristics; when mixed with cyborg components, these characteristics transform the character's gender. By exploring radical human biotechnology and cyborg innovations in this fictional story, the character, by being androgynous, agender, and queer and with multiple trajectories for their own sexuality and even body features, begins to embody an exemplification of what a post-gender individual can be, thereby showing how heterogeneous components can shape social constructs. With an increasing interest in both the production and consumption of science fiction, and a more open society regarding both technology and gender, further studies can benefit from applying different ways of approaching the understanding of post-gendered bodies.

Biography: Dr. Roger Andre Søraa is a researcher at the Department of Interdisciplinary Studies of Culture at the Norwegian University of Science and Technology (NTNU), where he also received his PhD degree. His research focus revolves around the domestication of technology in society, and how gender is developed in socio-cultural contexts. Contact: roger.soraa@ntnu.no

Works Cited

Ahmed, Sara. *Queer Phenomenology: Orientations, Objects, Others*. Duke UP, 2006.

Attebery, Brian. *Decoding Gender in Science Fiction*. Routledge, 2014.

Bolton, Christopher A. "From Wooden Cyborgs to Celluloid Souls: Mechanical Bodies in Anime and Japanese Puppet Theater." *positions: east asia cultures critique*, vol. 10, no. 3, 2002, pp. 729–71.

Butler, Julie. "X Marks the Spot for Intersex Alex." The Western Australian, 11 January, 2003,

www.crossdressing.pl/main.php?lv3_id=675&lv1_id=2&lv2_id=32&lang=en. Accessed 19 June 2019.

Braidotti, Rosi. "Posthuman, All Too Human: Towards a New Process Ontology." *Theory Culture and Society*, vol.23, no.7–8, 2006, pp. 197–208.

Gough, B., Weyman, N., Alderson, J., Butler, G., & Stoner, M. "'They did not have a word': The Parental Quest to Locate a 'True Sex' for Their Intersex Children." *Psychology and Health*, vol. 23, no. 4, 2008, pp. 493–507.

Haraway, Donna J. "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s." *Australian Feminist Studies*, vol. 2, no. 4, 1987, pp. 1–42.

---. *Simians, Cyborgs, and Women: The Reinvention of Nature*. Routledge, 1990.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. U of Chicago P, 1999.

Heinricy, Shana. "Take a Ride on the Catbus." *Anime and Philosophy: Wide Eyed Wonder*, edited by Josef Steiff and Tristan D. Tamplin, Open Court, 2010, pp. 3–11.

Helford, Elyce Rae. "We Are Only Seeking Man: Gender, Psychoanalysis, and Stanisław Lem's Solaris." *Science Fiction Studies*, vol. 19, no. 2, 1992 pp. 167–77.

Hellstrand, Ingvil. "Normative Body Identity in Science Fiction: Reading Gender in Battlestar Galactica." *Normality/Normativity*, edited by Lisa Folkmarson Käll, Centre for Gender Research, 2009, pp. 17–39.

Jasanoff, Sheila, and Sang-Hyun Kim. *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. U of Chicago P, 2015.

"Izana Shinatose." Sidonia no Kishi Wiki, http://sidonia-no-kishi.wikia.com/wiki/Izana_Shinatose. Accessed 11 July, 2018.

Johnson, Keith Leslie. "Nihei Tsutomu and the Poetics of Space: Notes Toward a Cyberpunk Ecology." *Southeast Review of Asian Studies*, vol. 35, 2013, pp. 190–203.

---. "Manga in the Anthropocene: Notes Toward a Cyberpunk Ecology 2." *Southeast Review of Asian Studies*, vol. 36, 2014, pp. 111–122.

---. "Abjection, Projection, Introjection: Notes Toward a Cyberpunk Ecology 3." *Southeast Review of Asian Studies*, vol. 37, 2015, pp. 60–72.

Le Guin, Ursula K. *The Left Hand of Darkness*. 1969. Ace Books, 1987.

Mari, Kotani, and Miri Nakamura. "Space, Body, and Aliens in Japanese Women's Science Fiction." *Science Fiction Studies*, vol. 29, no. 3, 2002, pp. 397–417.

Melzer, Patricia. *Alien Constructions: Science Fiction and Feminist Thought*. U of
    Texas P, 2006.

Napier, Susan J. *Anime From Akira to Princess Mononoke: Experiencing
    Contemporary Japanese Animation*. Palgrave Macmillan, 2001, pp. 103–16.

Ohsawa, Yuki. *Changes in the Conceptualization of Body and Mind in Japanese
    Popular Culture, 1950–2015*. Dissertation, University of British Columbia,
    2016.

Orbaugh, Sharalyn. "The Cult Film as Affective Technology: Anime and Oshii
    Mamoru's Innocence." *Science Fiction Double Feature: The Science Fiction
    Film as Cult Text*, edited by J. P. Telotte and Gerald Duchovany, Liverpool UP,
    2015, pp. 82–84.

Robertson, Jennifer. "Gendering Humanoid Robots: Robo-Sexism in Japan." *Body &
    Society*, vol. 16, no. 2, 2010, pp. 1–36.

Salamon, Gayle. *Assuming a Body: Transgender and Rhetorics of Materiality*.
    Columbia UP, 2010.

Shizuno, Kobun, creator. *Shidonia no Kinshi (Knights of Sidonia)*. Polygon Pictures,
    2014–2015.

Søraa, Roger Andre. "Mechanical Genders: How do Humans Gender Robots?"
    Gender, Technology and Development, vol. 21, no. 1–2, 2017, pp. 99–115.

Turner, Stephanie S. "Intersex Identities: Locating New Intersections of Sex and
    Gender." *Gender & Society*, vol. 13, no. 4, 1999, pp. 457–79.

Williams, Donna Glee. "The Moons of Le Guin and Heinlein." *Science Fiction
    Studies*, vol. 21, no. 2, 1994, pp. 164–72.

Wolfe, Cary. *What is Posthumanism?* U of Minnesota P, 2010.