

## Feature 101

# Immortality and Infertility in Science Fiction: Who Wants To Live Forever?

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### *Abstract*

THE DESIRE TO LIVE FOREVER may be hard-wired as part of our selfish gene makeup but we can have no true knowledge as to whether such a state would be desirable in the long term or not. This paper investigates the intersection of infertility with immortality, and attempts to do so by including all available narrative forms. Common tropes and excessive scientific errors are highlighted with an interdisciplinary leaning as the author is a medical doctor.

### *Introduction*

Immortality is a common function in mythology, and the “theme of a conditional invulnerability or immortality appears with some regularity in Greek myth” (Hard 457), emphasising “the limitations of the mortal condition” (457), and our desire for endless deferrals of the dread for something after death.

Immortality in science-fiction (SF) has been extensively reviewed in critical works (Slusser), and specifically, the neurobiologist Joseph D. Miller has pragmatically addressed “what little is known of the biology of aging and death” as well as extant biological life pro-

longation techniques such as hibernation and extreme diets (Miller 81).

Indeed, it has even been suggested “that an urge for immortality [...] at the level of the gene is the basis of all behaviour” (Cooke), serving as “a desperate defense against death” (Rabkin xvi). Alternatively, it has also been argued that the longevity plot “is always a figure and a disguise for that rather different one which is historical change, radical mutations in society and collective life itself” (Jameson 32). The tack often taken by authors is that of “the motif of futility and punishment resulting from a search for immortality,” akin to the mythical Tithonus (Rosen), who was granted immortality without accompanying youth, destined to an existence of increasing decrepitude (Hard 47), prefiguring the Struldbrugs in Jonathon Swift’s *Gulliver’s Travels* (1726).

Immortality in SF is too vast a subject to tackle in any reasonable length, and this paper will therefore focus on the intersection of immortality with infertility within the genre. In SF, the price of longevity or immortality is often depicted to be infertility. This is probably for three reasons: firstly to neatly eliminate the otherwise ensuing overpopulation problem at source and allow the author to concentrate on the consequences of immortality. Secondly, to create a sense of pathos and elicit sympathy for a protagonist who would otherwise be superhuman. Finally, and most importantly, as a price for not remaining effectively human, a Faustian type of bargain, as influentially discussed by Harry Levin in *The Overreacher: A Study of Christopher Marlowe* (1952). Levin discusses Marlowe’s *Faustus* (Latin for “auspicious”), a highly successful scholar who is dissatisfied with life and enters into a pact with the devil, pledging his soul for a fixed number of years of unlimited knowledge and worldly pleasures. Levin compares *Faustus* with Icarus, Simon Magnus and Cornelius Agrippa, other overreachers representative of the scientific community who succumb to temptations that they provide for themselves (108-35).

This paper will attempt a comprehensive reading of narratives that deal with the intersection of infertility with extreme longevity and immortality. All narrative forms will be entertained, and limitations of space will therefore preclude any more than a brief synopsis of each narrative. This review will also inevitably exhibit an interdisciplinary slant as the author is a medical doctor who will also highlight scientific implausibilities that go beyond the pale of acceptable poetic license as arguably, SF “was, or should be, integral to scientific

thought and research, [...] judged on those grounds, and not on merely literary ones: or, one might say, not on literary grounds at all” (James 23).

### Narratives

Extreme longevity and infertility are depicted in Silverberg’s “To Be Continued” (1956) which portrays an exceptionally long-lived Roman who ages at a tenth of the normal rate, and who has finally reached maturity as evinced by a positive sperm test. He also manages to find another long-lived female, but despite her adult appearance, his ambitions to father a child are thwarted as she has not reached true sexual maturity. This story presents several implausibilities and contradictions from a biological point of view. Slow maturation would also encompass the neonatal and infant period, and it is likely that such a child would have been killed by the superstitious populace, and if not, venerated as a sending from the gods. Another improbability is the identically slow rate of aging in two individuals who are almost certainly *de novo* spontaneous mutations and not in any way related.

Extreme longevity and infertility have also been depicted in human-manufactured androids in Simmons’s *Hyperion* (1989), contrary, for example, to Scott’s short-lived androids in *Blade Runner* (1982).

The extreme end of the longevity spectrum is immortality, and this has also been depicted as inflicting sterility, again, perhaps, a form of chastisement for overreaching or instantiating an “unnatural” state. For example, in Kate Wilhelm’s “Welcome, Chaos” (1983), a small group of scientists develop a drug that kills half of the individuals that ingest it and confers immortality and sterility on the remainder through an immunological method that renders the individual immortal, freezing the individual’s age at the time when the drug is taken. In a rather anticlimactic ending, the group finds out that women can overcome their immunological response to sperm via yoga techniques. Doctors are hardly mentioned in this novel and one questions whether such a small group of true scientists would not have realised that they did not have a large enough sample of humanity to test this drug adequately, and in the circumstances, ethically, and for a discussion of the issues related to drug testing prior to public release, see Bodenheimer.

An analogous situation develops in Keller’s *Life Everlasting* (1934), when a maverick scientist develops a serum that confers extreme longevity and corrects physical defects but is afraid to try it on his son, who

has an incurable disease. He therefore tries it out on four fellow roomers that also live in his rooming house, and when it works, he makes the serum public. Unfortunately, this also causes sterility and the scientist shrugs this off as, after all, the serum would otherwise lead to massive overpopulation. A similar situation is portrayed in Eberle's *The Mordant* (1930) where an elixir provides immortality at the price of sterility and a stifling of the soul. Keller's other short story, "The Evening Star" (1930) features a small group of perfect humans on Venus with extreme longevity who are practically sterile.

Radiation not pharmacology is the source of immortality for a group of lost Incas in Milton's "The Dynasty of the Blue-Black Rays" (1930), a hollow Earth story wherein special natural radiation enables them to survive without sustenance, but they are sterile and if they leave their underground abode, will immediately die. Similarly, long-lost Atlantean descendants are discovered in whom immortality is admixed with sterility in Merritt's *The Face in the Abyss* (1923). Utilising a slightly different medical technique, Wertebaker's *The Coming of the Ice* (1926) conflates sterility and loss of libido with immortality acquired through a surgical procedure.

Extreme longevity is also conferred on the survivors of individuals who contract and survive a micro-organism on the planet Ballybran where singing crystals are mined, in McCaffrey's *The Crystal Singer* (1982), but such survivors are also rendered sterile. Adams's series *Horseclans* (1975) also depicts immortals who come about after a nuclear war and who are also sterile. Aliens confer immortality through a substance that is imbibed in water while slowly causing human sterility in Voris' *The Waters - Book One - The Valley* (2008). Fortunately, in the sequel *The Waters - Book Two - Contact* (2009), the aliens return to rectify this unforeseen problem.

In Shaw's *One Million Tomorrows* (1970), immortality is available in drug form, but males that take the immortality drug lose their sex drive. For this reason, most men take the drug when their innate sex drive wanes due to advancing age. Infertility as the cost of immortality is also seen in Simmon's *Hyperion* (1989), where a crashed spaceship crew are infected by a parasite that renders them immortal and not only sterile, but also without gonads and external sexual characteristics.

In Budrys's "The End of Summer" (1973), the protagonist creates a generator that blankets the globe with a

special type of radiation field that produces immortality by inducing all cells to maintain their status quo at the instant when the generator was switched on, thereafter preventing the changes that would be necessary for a pregnancy to develop, and also precluding new memories from being laid down, a permanent groundhog day. Similarly, Lem's *Return from The Stars* (1971) portrays an astronaut who returns to Earth after a mission that lasts in excess of a century, and who finds humanity "betrized", a medical process that removes all aggressive impulses but dampens the sex drive.

Immortality may also be conferred as result of a near-death experience in Bester's *Extro* (1975), and the resulting men and women are also sterile. More recently, in Simmon's *Ilium* (2003), virtual immortality is also shown to cause greatly reduced fertility.

Pubertal manipulation may also result in sterile immortality. In Knight's "The Dying Man" (1957), humanity is genetically engineered to appear adult and sexually active while being actually prepubertal hormonally, and hence incapable of conception, and we are told that the rare sexual encounter that leads to pregnancy is inevitably spontaneously aborted.

Similarly, Niven's Stapledonian *A World Out of Time* (1976) merges several tropes, by depicting spiteful "Boys" and "Girls" who are immortal and extremely intelligent, prepubertal (and therefore sexually inactive), and who do not commingle across the gender divide. Almost identical tropes are depicted in the Star Trek episode "Miri" (1966) wherein the inhabitants of an extrasolar planet created a "life prolongation complex" virus that inadvertently killed all of the adults and slowed down surviving children's physical and sexual development, but these children eventually still reached puberty and die on contracting the virus. And in Marley's *The Child Goddess* (2004), a virus is also responsible for creating an extrasolar society of children exclusively, resulting in a state of perpetual prepubescence and immortality.

Immortality with ennui and voluntary infertility is glimpsed in Simmon's *Endymion* (1995), where the Church rules a vast interstellar empire and controls it by offering a guaranteed form of immortality resulting in an endless cycle of repetition without change. Children are therefore no longer vital to the continuation of the species, and are considered a liability.

Conversely, in Hamilton's Confederation universe, after a widespread unification of all of the various Christian faiths, priests are no longer celibate (and may also be female) and indeed, contraception is actually en-

dorsed, especially in the setting of a grossly overpopulated Earth. Infertility is also the lot of the immortal male-only soldiers in Langford's "Training" (1979) who are maimed and killed many times over and recover in regeneration tanks. They are conscious of their regeneration, and watching their bodies re-grow is so dehumanizing that they become impotent. Farmer's "Father" (1955) combines several tropes by depicting a women-only world where all animals are female, immortal and sterile, and a human group finds itself unable to have any form of sex, and one of the female humans who happens to be pregnant miscarries.

Not even micro-organisms are spared the infertility-immortality dichotomy, and in Blish's *They Shall Have Stars* (1956), experiments on microbial rotifers are shown to demonstrate that if they are bred for longevity, they tend to be less fertile, and vice-versa. Aliens have also had to submit to this dichotomy and Silverberg's *Downward to the Earth* (1969) refers frequently to Conrad's *Heart of Darkness* (1899) with many of the themes experienced by Conrad's anti-hero (such as anti-colonialism and even a character named Kurtz). The novel portrays the alien inhabitants of a human ex-colony world who experience physical rebirth, and are alternately reborn as one or the other of the planet's two sentient races. This process somehow leads to few offspring being produced. Similarly, Sheckley's "The Sweeper of Loray" (1959) depicts an alien village where an endemic vegetable lengthens lifespans significantly but reduces the village's birth rate.

Interestingly, men are needed, albeit briefly, in the two Star Trek episodes, "The Lorelei Signal" (1973) and "Favorite Son" (1997), where beautiful females feed off the "life energies" of males, thus killing men to retain their immortality at the expense of infertility.

### Discussion

This reading reveals a common denominator within the wider genre itself in that these narratives "recontextualize the subject of immortality, continuing to examine its influence as an ancient human aspiration while at the same time considering new scientific advances and their impact on life and literature" (Rabkin vii).

Another shared common thread is the reflection of our collective wish to enjoy existence without the vicissitudes of age and infirmity, "our culture's avoidance of that middle ground between fantasies of perpetual youth and dreams of endless life: the increasingly common reality of a greatly protracted old age" (Mangum 102).

This reading also demonstrates that immortality would mutate society in unimaginable ways, because inevitably, "in a world where eternal life is possible, there will be social change and adaptation. Human culture will flex and bend [...] There will be a feedback [...] adaptations, and society will end up influencing the way immortals live. Some of that influence may be negative" (Yoke and Hassler 186).

However, questions are raised by potential immortalisation because we may "lose our very selves. Immortality is a self-defeating fantasy, a desperate defense against death [...] who would choose such a neutered eternity?" (Rabkin xvi) and indeed, overall, fiction perceives "extended longevity, let alone the limiting case of immortality, as being in conflict with the essential human spirit, which acquires meaning in relation to mortality" (Domingo 733).

Some narratives in the genre seem to argue against immortality, implying that "true pleasure is not additive (i.e., not made "better" by being prolonged or experienced more often). If your life is a good one, and worth living, it is not made better, or more worthwhile, for having a greater duration" (Preston and Dixon 105). Would endless cycles of repetition unavoidably lead to ennui and hubris, with physical, psychological and emotional sterility? This naturally raises yet another question: would this create any tension and if so, would we really care?

It has also been stated that the "longevity plot is always a figure and a disguise for that rather different one which is historical change," that is, fear of change, and in relation to ageing, this is invariably for the worse (Jameson 34) since arguably "all fears and phobias are at bottom fears of death or of the abatement or arrest of vitality" (Stanley 550). On the other hand, "at some level, immortality is depicted there as an undesirable exclusion from the dynamic processes of normal life," (Canaan 323) an unnatural and undesirable process that may lead to "separation from the joys of heaven and the afterlife," (Rosen 128) resulting perhaps in a "cultural bias against immortality" (131). This, however, is viscerally combated since "an urge for immortality [...] at the level of the gene is the basis of all behaviour" (Cooke 90).

Perhaps this is why the conflation of infertility with immortality is the exception in SF where the inherent optimism of the genre only infrequently imposes infertility or sterility as the price of longevity or immortality, in a switch from the mammalian "disposable soma" theory which states that ageing is neither use-

ful individually nor racially, and summarises a species' options as one of these two: to expend what is effectively a finite amount of energy in maintaining stable individual organisms with multiply redundant systems, and such individuals would be virtually immortal. Or to expend energy in a process of accelerated development and sexual reproductive potential, engendering offspring but at the price of cumulative metabolic errors in the individual that will result in ageing and eventually death of the disposable soma (body), with a high level of accuracy maintained only in the germ line cells (Kirkwood and Holliday).

The opposed view is usually the case in SF, and longevity or immortality is associated with infertility in only a very small proportion of SF narratives. Arguably the most famous example in the genre of virtual immortality without sterility is Heinlein's Lazarus Long, a product of a deliberate breeding program designed to inculcate longevity by the selective breeding of humans who have long-living grandparents, a program sustained by financial incentives for those who participate. The inherent longevity of these humans is further enhanced by complete rejuvenation clinics which gradually replace nearly all body parts in combination, extending their already-long lifespans practically indefinitely, and humanity avoids overpopulation by endlessly populating new and virgin planets and living typically Heinleinian idiosyncratic lifestyles, proving that the "successful immortal [...] not only stays alive but does something satisfying with his life, [...] by avoiding confinement within a set of rules or preconceptions" (Yoke 138).

The possibility of extreme longevity or immortality has been discussed in the scientific literature, and state or societal imposition of measures that would limit population have been raised. An interesting possibility is to limit the right to reproduce only after eventual death or to forfeit this right to subsequent antiagathic therapies should individuals decide to reproduce (Harris).

Some have regarded immortality as a "denial of the sexual and generational" (Hendrix 189), and in this setting, SF posits cautionary tales, "the motif of futility and punishment resulting from a search for immortality" (Rosen 125), yet another repetition of SF's warning with regard to overreaching, as individual authors repeatedly warn readers.

Terrifying situations and a frequent "happy ending: it is the coexistence of fear for and projection towards the future that makes science fiction a popular genre in

today's world, a panacea that simultaneously fans and soothes our visions of where [...] hubris may lead us." (Thake Vassallo 177).

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