

Possibilities and Improbabilities in Human-Alien Interbreeding

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Introduction

DIFFERENT SPECIES have readily mated together in mythology, and Zeus, for example, is said to have taken a bull's form in order to seduce Europa (Hard 13). This trope also has Biblical precedent when, in ancient times, the sons of God (angels) found human women fair, took them to wife and begat children off them, a scenario repeated in two popular films, Ephron's *Michael* (1996) and Silberling's *City of Angels* (1998). In a more sinister vein, succubi (female) and incubi (male) were purported demons that allowed mankind to consort sexually with the devil. Such folklore is not restricted to Christianity and accounts of diabolical intercourse are common cultural phenomena with parallels from non-Christian sacred texts including Arabian djinn or jinn, Greek satyrs, Hindu bhuts, Samoan hotua poro, and Celtic dusii (Sagan). Scientists abhor such superstitions and an excellent review of how scientists wish the non-scientist to learn critical and sceptical thinking so as to be able to identify pseudoscience and so-called magic is given in Sagan's, *The Demon-Haunted World: Science as a Candle in the Dark* (1995).

Xenology may be defined as the scientific study of all aspects of extraterrestrial life forms. Xenobiology is a subset of xenology and refers to the study of the biology of extraterrestrial lifeforms. *Xenogamy* (Greek, *xenos*=strange, *gamos*=marriage) is the transfer of pollen grains one plant to a different plant and is also used to refer to sexual relations across alien species.

This paper will discuss SF's depiction of interspecies sexual relations through a comprehensive reading of related texts. An interdisciplinary flavour will be noted throughout as the first author is a medical doctor, such that real-life parallels will be highlighted while excessive poetic licence that goes beyond the bounds of reasonable speculation will be pointed out.

Narratives

The first alien/human sexual relationship, a man with an insect, was by Farmer in "The Lovers" (1952), which was rejected by the leading magazine editors of the time, John Campbell of *Astounding* and Horace Gold of *Galaxy*, presumably because of its perceived risqué adult theme. Farmer is often credited with introducing mature sexual themes into SF. Many of Farmer's early works handled these themes very explicitly and an excellent review with regard to the lack of sex in SF prior to this story is given by Moskowitz, *Philip José Farmer: Sex & Science Fiction* (1964).

Human-humanoid alien offspring are common in SF, and one of the first and most romantic liaisons was penned by Burroughs, that of John Carter, an Earth human, with the incomparably beautiful Dejah Thoris, who, although perfectly humanoid in appearance, comes from the red-skinned Martian oviparous (egg-laying) race, and indeed, their son is born after hatching from an egg.

However, it is in the *Star Trek* universe where trans-species unions are most common and result in fertile offspring. A bewildering number of species seem to be able to intercross but undoubtedly, the most famous hybrid not only in *Star Trek*, but in all SF is Spock, the son of a Vulcan male and a human female, as first exposed in Pevney's "Journey to Babel."

Numerous crosses are said to be possible in the *Star Trek* universe, with or without the help of genetic technology, because of the shared genetic ancestry of most of the humanoid races of the galaxy who had been seeded by an ancient race known as the "Progenitors" (Frakes, "The Chase"). All of the *Star Trek* series have depicted inter-species mating and the produces thereof, and the most commonly involved race in such unions is humanity. Many of these narratives have revolved around the prejudices that the resulting children provoke in their respective parents' societies, being outcasts in both, as revealed in even the last *Star Trek* movie (Abrams).

However, even if such crosses were possible, it is highly likely that they would be sterile, such as mules on Earth, the result of a cross between a horse and a donkey. Such a scenario is portrayed in Boucher's "The Quest for Saint Aquin" (1951), the sterile union of man and Martian, and in more interestingly, in Kurten's *Den Svarta Tigern* (1978) which suggests that blond Neanderthals were fatally attracted to the dark Cro-Magnons, resulting in sterile matches.

The ultimate in *Star Trek* credibility-challenging fecundity is the combination of a mobile holographic emitter with the DNA of a male human and cybernetic Borg nanoprobes to produce a 29th century Borg drone (Landau). Yet another fantastic situation is portrayed in the *Star Trek* episode "Blink of an Eye" (2000) when the holographic doctor claims to have somehow fathered a child.

Equally incredibly, Butler's *Dawn* (1988) portrays humanity at risk of extinction after a nuclear war on Earth, and redeemed by its transformation "through genetic exchange with extra-terrestrial lovers/rescuers/destroyers/genetic engineers, who reform earth's habitats [...] and coerce surviving humans into intimate fusion with them" (Haraway, "Simians, Cyborgs and Women"). This novel "interrogates reproductive, linguistic, and nuclear politics in a mythic field structured by late twentieth-century race and gender," (Ibid.) but is based on a highly implausible premise, the ability of an alien species to readily be able to incorporate and utilise genes from other, equally alien races.

Moreover, infertility is portrayed as the basis for interplanetary war in Buchanan's *Mars Needs Women* (1966), where Martians with a genetic deficiency that produces only male babies launch a mission to Earth to recruit female volunteers for Mars, meeting strong resistance from Earth governments.

Similarly, in Fowler's *I Married a Monster from Outer Space* (1958), the menfolk of an American town are taken over by an alien species whose females have been rendered sterile and have come to Earth to marry and breed with human females in order to revive their race. Lee's "Beauty" (1983) takes this further by turning human females into surrogate mothers, with no genetic contribution to their offspring, who have embryos implanted by sterile aliens in an attempt to perpetuate their race. Similarly May's *The Many-Colored Land* (1981) depicts an alien race in Pliocene Earth (5.3-2.5 million years ago) who use humans who travel back to this time as breeding stock, since their own females have are infertile. Also, in Nour's *Love's Captive* (2005), interstellar pirates abduct fertile females as wives for the men of a planet whose race is endangered due to their women's sterility. A more menacing approach is taken in *The X-Files*, where the protagonists thwart a government conspiracy to help inimical aliens colonise the Earth, including attempts to create a slave race of human-alien hybrids through the use of bio-weapons (Manners, "Requiem").

Humanity has typically withheld fertility from its own

hybrid creations with the earliest example of this conduct occurring in what is widely recognised as the first SF novel, Shelley's *Frankenstein* (1918), wherein Victor Frankenstein, the archetypal mad scientist, comes to "the realization of the reproductive potential in creating a mate for his monster;" a blazing comprehension which gives Victor second thoughts, and "leads to her destruction before she is even brought to life, and ultimately to the deaths of all those whom Victor loves" (Pearson 2). The monster was constructed from material collected from the charnel-house, the dissecting-room and the slaughter-house, implying a mixture of man and beast. An almost identical story is mooted in Duffy's *Gor Saga* (1982) where a chimeric monster raises anxieties about cross-species pregnancy should the creature attempt to mate with a human female.

An even more improbable scenario is represented in Dozois' only solo novel, *Strangers* (1978) where a human male allows himself to be genetically altered so as to allow him to father a child with an alien female with whom he has fallen in love. This is clearly paradoxical since our DNA defines our species and very nature, and such a radical alteration would transform the individual from a human to an alien.

More realistically, concern with regard to the possibility of both sex and reproduction, with an alien who has incredible psychic abilities to make plants grow, are voiced by the human female protagonist in Moore's "The Fellow who Married the Maxill Girl" (1960), but unbelievably, and fortunately for her, both turn out to be possible.

Such interbreeding is extremely unlikely in that human-alien crosses would be virtually impossible unless species shared an identical genetic code, an infinitesimally small probability as the odds of species evolving independently on different planets and yet having compatibly identical genetic codes are vanishingly remote. Moreover, more mundane biological impediments to such unions, assuming some form of sexual reproduction, would be insurmountable, and these include genital anatomy and mating cues, as will be demonstrated.

A more practical approach is taken by Niven in the *Ringworld* (1970) where sexual intercourse is an important ritual for the sealing of agreements or contracts in the huge environment that constitutes the Ringworld where a multitude of different humanoid species speciate to fit every ecological niche, and the various subspecies, while able to mate, are infertile with each other. Speciation refers to processes that lead to the creation of new species, and occurs when a parent species splits

into two or more reproductively distinct species that may be able to have sexual intercourse but from which no offspring can ensue. Charles Darwin described these processes after observing them in the Galapagos and Canary islands during his epic voyage on the Beagle, speculating that survival and speciation occurs through "natural selection of varieties having different innate constitutions" (141).

Speciation also features in Harrison's *Planet of the Damned* (1962) wherein human colonists on an alien planet make massive adaptations to survive. This leads to a high level of infertility that is countered by artificial insemination, with an elevated rate of miscarriage and early infant death.

The reality is that human-alien mating is well nigh impossible, as graphically illustrated in Tiptree's "And I Awoke and Found Me Here on the Cold Hill's Side" (1973) where sexual relations with aliens are depicted as deviant and fetishistic by both of the involved races. The apt Keatsian quotation of the story's title is from the last stanza of "La Belle Dame Sans Merci," representing aliens as the intoxicating yet indifferent Belle Dame while humanity is compared to the poem's pally-loitering knight. The same author repeats this theme in "The Milk of Paradise" (1972) in which the son of a famous interstellar explorer is rescued after being shipwrecked on an alien planet as a child and raised by grotesque aliens, surviving to adulthood and having sexual relations with said aliens. Sex with aliens is similarly regarded as a perversion in Fast's *Mortal Gods* (1978). *Star Trek* improbably depicts the Deltan race, highly sexually evolved humanoids who sexually irresistible to humans. Hence, before serving in Starfleet, they are obligated to take an oath of celibacy ensuring that they would not take sexual advantage of any non-Deltan crew (Wise).

A more realistic view of interspecies unions, possibly in a contract form such as marriage, is depicted in the platonic relationship between a woman and a bird-like alien in Knight's "To the Pure" (1966). The impossibility of a pregnancy during a one night stand experienced by a human male with a beautiful and superhumanly intelligent alien female is also made abundantly clear in Leiber's "Game for Motel Room" (1963), and finally, in *Watchers of the Dark* (1966), traders marry across species to reinforce trading alliances but legitimately have mates of their own species for the purposes of sex and procreation, and these mates may also be married themselves to members of other species. Formal marriages are therefore infertile but offspring are still pro-

duced.

However, despite the impossibilities of human-alien sex or interbreeding, the UFO literature is redolent with such possibilities that are science-fictional. Indeed, “the ur-abduction, the Betty and Barney Hill case of 1961 [...] contained many of these elements-particularly recovery by hypnosis,” (Luckhurst, “The Science-Fictionalization” 31) such that now, “it is the very elision of sf and UFOlogy that has caused exasperation, and ensured mutual suspicion between UFOlogists and the sf community” (Ibid).

The possibility – or impossibility – of human-alien reproduction was decisively highlighted in Niven’s classic essay “Man of Steel, Woman of Kleenex” (1971). Niven speculates that Superman is a result of parallel evolution on an extrasolar planet (Krypton). Niven posits several potential problems, quoted verbatim:

1. What arouses Kal-El’s mating urge? Did kryptonian women carry some subtle mating cue at appropriate times of the year? Whatever it is, Lois Lane probably didn’t have it. [...] A mating between Superman and Lois Lane would feel like sodomy-and would be, of course, by church and common law.
2. In addition, [e]lectroencephalograms taken of men and women during sexual intercourse show that orgasm resembles “a kind of pleasurable epileptic attack.” One loses control over one’s muscles [...] What would he do to the woman in his arms during what amounts to an epileptic fit?
3. Consider [...] the monomaniacal urge to achieve greater and greater penetration. [...] Superman would literally crush [...], while simultaneously ripping her open from crotch to sternum.
4. Ejaculation of semen is entirely involuntary [...] Kal-El’s semen would emerge with the muzzle velocity of a machine gun bullet. In view of the foregoing, normal sex is impossible. Artificial insemination may give us better results:
5. Kryptonian sperm [...] can travel with equal ease through water, air, vacuum, glass, brick, boiling steel, solid steel, liquid helium, or the core of a star; [...] translight velocities. What kind of a test tube will hold such beasts?
6. If the genes match... One sperm arrives before the others. [...] the cell wall now thickens

to prevent other sperm from entering. [...] ten million kryptonian sperm arrive slightly late. [...] A thickened cell wall won’t stop them. They will [...] enter the egg, obliterating it entirely.

7. There are still tens of millions of frustrated kryptonian sperm. [...] The sperm scatter. [...] with several million microscopic perforations all leading deep into her abdomen. [...] Peritonitis is inevitable. Meanwhile, tens of millions of sperm swarm in the air over Metropolis.

8. There they are, minuscule but dangerous; for each has supernormal powers. [...] The Metropolis night comes alive with a network of narrow, eerie blue lines of Cherenkov radiation. And women whom Superman has never met find themselves in a delicate condition.

9. We must use a single sperm.

10. The single sperm may crash through [...] abdomen at transsonic speeds. [...] We can expose it to gold kryptonite, [...] robs a kryptonian of all of his supernormal powers, permanently [...] then use standard techniques for artificial insemination.

11. But if some or all of the kryptonian genes are dominant... Can the infant use his X-ray vision before birth? [...] That would leave LL sterile. If the kid starts using heat vision, things get even worse. But when he starts to kick, [...] he will kick his way out into open air, killing himself and his mother.

12. We can make LL wear a kryptonite [...] belt around her waist. But too little kryptonite may allow the child to damage her, while too much may damage or kill the child. Intermediate amounts may do both! And there is no safe way to experiment.

The problem raised by point 1. above is fictionally depicted in Watt-Evan’s “One of the Boys” (1995). This comprises part of an anthology (Mainhardt and Varley) of twenty-five short stories about unusual cartoon heroes who, unlike the conventional pantheon of clean cut heroes, have weird and sometimes warped viewpoints. Many of the stories are satirical and have unexpected endings. “One of the Boys” graphically portrays a being with powers practically identical to Superman but who is unable to have sex with women, and indeed, unable to fit in as his brain is not designed to interact with humanity, although he looks perfectly humanoid. Indeed, he prefers a different ambient temperature,

humidity and food to humans, and is truly inhuman despite his mundane, human appearance. Like Superman, he is alone among humans but unlike Superman, it is not only his superpowers that set him apart but also his lack of any affect and reaction to human females, including those who throw themselves at him.

Discussion

The creation of an alien/terrestrial hybrid requires the parent species to have proteins, with identical amino acid sequences, the same protein molecule optical rotation, and matching numbers of chromosomes that are of identical size and shape and containing the same types of genes on the same chromosomes at the matching locations. Even if such a hybrid could be somehow created, *in vivo* or *in vitro*, since it is estimated that 50% of all normal human pregnancies end in spontaneous abortion, such an unusual hybrid stands an infinitesimal chance of surviving in utero till term (Jacob). And if despite all of these improbabilities, this hypothetical hybrid was given birth, it would most likely be sterile, like the liger or the common mule, counteracting any arguments in favour of hybrid vigour resulting from the union of such disparate organisms.

In some ways, interspecies relations have been explored by Donna J. Haraway in *When Species Meet* (2008), in which she contemplates the interactions of humans with other species, and after wondering “whom and what do I touch when I touch my dog?” (1) and continues to argue that when we touch an animal, such as a pet, do we only touch the animal or does our touch shape our world-view of our multispecies world? Intriguingly, in her “Manifesto for Cyborgs,” Haraway asserts that we are all hybrids, or rather, “we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs,” (150) and then paradoxically implies our premature desexualisation as “[t]he cyborg is a creature in a postgender world” (ibid.).

This reading shows that SF narratives that deal with cross-species sex discuss “issues around sexuality and gender [...], still extraordinarily fraught areas of human existence and thought,” (Pearson 2) reinforcing the admonition that in SF as in life, ‘sexuality is a complicated and remarkably intransigent subject of inquiry, one whose material consequences can be ignored only at the peril of both individuals and cultures’ (ibid.).

Some of these stories foreground humanity’s foreboding with technology and science, and where these might lead us, as “SF [...] is a popular literature that

concerns the impact of Mechanism [...] on cultural life and human subjectivity,” (Luckhurst, “Science Fiction” 4) with all of these sub-tropes comprising metaphors, a form of “discursive challenge to the naturalized understanding of sexuality and its concomitant sociocultural surround” (Pearson 19).

These narratives also fulfill several other roles, including “satire on contemporary culture, a prediction of biological advances, a commentary on the social roles of science and scientists, and a plan for reforming society” (Woiak 106), reiterating the versatile nature of the genre.

The narratives’ dates clearly show that sex in SF surfaced quite late in the day, as Russ recounts, in the Golden Age, the genre “resolutely ignored the whole subject” of homosexuality, and indeed, of kind of sexually explicit material (Russ 22). Such material was very rarely to be found, almost as if editors felt that they must protect their principally adolescent male readership. This could be attributed to the then contemporary business model, where “the conservatism of a primarily male audience—and the editors, publishers, and distributors who were trying to outguess that audience—kept gender exploration to a minimum” (Attebery 5).

And although the pulp covers of the 1930s and 1940s frequently hinted at interspecies sexual relations by depicting scantily-clad maidens attired in brass underwear (Sullivan 42-3), menaced by repugnant, bug-eyed aliens while being liberated by square-jawed heroes, the covers were invariably far more lurid than the magazines’ contents, paralleling contemporary prejudices. Indeed, the perpetrator, Earle K. Bergey, was quite renowned for his magazine cover art that frequently portrayed implausible female costumes, including the classic brass brassieres. SF’s image of the time was strongly associated with his *Startling Stories* magazine covers for 1942-1952 (Westfahl). Such covers prefigured factual and published scientific accounts by Kinsey et al (1953) of attempted copulation between a female eland and an ostrich, a male dog and a chicken, a female chimpanzee and a tomcat, and a stallion and a human female, despite obvious ‘gross morphologic disparity’ (503).

This attitude persisted until the 1960s, when the genre began to generate works such as those included in Harlan Ellison’s 1967 *Dangerous Visions* anthology.

Nevertheless, the commonest SF approach to diversity is usually tolerance, unless bigotry and prejudice form part of the plot, and this is best exemplified by the Vulcan race in *Star Trek*. Vulcans embrace IDIC: Infinite Diversity in Infinite Combinations. Arguably, overall,

this concept is a cornerstone of Vulcan philosophy, of the *Star Trek* universe, and of SF in general (Senensky).

It is, however, important to note that terrestrial interspecies mating is possible, and has been possibly documented as far back as the origin of man, since recent work suggests that Neanderthals contributed to at least 5% of modern man's gene pools, some 45,000 to 80,000 years ago, after the initial divergence of the two lineages some 400,000 years ago (Wall). Even further back, it is believed that after human and chimpanzee lineages initially diverged 6.3 million years ago, interbreeding between the two lineages continued, before sufficient divergence due to speciation precluded fertile mating (Patterson).

This leads to the biological contention that there may not actually be such a thing as a scientifically fixed species identity as, for example "99.4 percent of the most critical DNA sites are identical in the corresponding human and chimp genes" (Hecht). However, anthropologists counterargue that the "extent to which our DNA resembles an ape's predicts nothing about our general similarity to apes, much less about any moral or political consequences arising from it" (Marks).

Nature spontaneously provides us with such unions as several genetic studies have revealed the existence of interspecies offspring (Kinsey). Science further confounds and challenges these boundaries with hybrids and chimeras that cannot possibly exist in nature. A hybrid is the product of breeding two different species (naturally or in vitro) such that each cell of the resultant offspring contains a mixture of both parents' genes. A chimera consists of two entirely different cell lines with completely different genes within the same individual. Clearly, both creations "present challenges to western heteronormative notions of kinship," (Hird 217) while extending "the notion of kinship to include non-human animals as well" (219), wrecking our concepts as what biology formerly said is now "neither transparent nor immutable" (220). These representations also portray contemporary fears of miscegenation and help us to understand how 'the other' may not be so different after all.

These narratives further underpin the assertion that "laying no claim to prophecies except for its statistically to be expected share, SF should not be treated as a prophet: neither enthroned when apparently successful, nor be-headed when apparently unsuccessful" (Suvín). These SF contentions assume that the future will be superior, more open-minded, outward-looking and accepting, and by destabilising the boundar-

ies of species, prefigure the shape of things to come, somehow reducing the "future-shock" effect of rapid imposed scientific change (Toffle), a potentially naïve attitude since we can have no assurances of any sort of enlightened future.

Finally, in SF as in real life, "creating intraspecies hybrid animals might attack speciesism" (Pence 154) but also warns us that we may also victimise such creations "into interchangeable resources" (Ibid.) thereby providing cautionary tales as to what such liaisons might imply for the individual and for humanity.

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