\*\*Aff\*\*

1ac – Sage

Contention One – Manned Space

From its conception the American space program understood risks and rewards in a way that explicitly privileges masculine bodies. Even when the masculine norm is explicitly transgressed, as in the case of the Mercury 13, the women trained tested and then rejected for the first Apollo mission, NASA retains its phallocentric bias by relying on a singular conception of space within which women can only exist as not-man & therefore not suitable for manned space exploration.

Sage 2009

Daniel, BA, MA, PhD, Research Associate for Civil & Building Engineering at Loughborough University, Giant leaps and forgotten steps: NASA and the performance of gender. The Sociological Review, Winter 2009, 57: 146–163

The masculine self-identity of pilots has often been understood through an eroticized desire for risk and suffering, or what [Law (2002](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b22)) terms ‘Thrills and spills’ (p. 32). Similarly, [McCurdy (1993](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b26)), quotes one Apollo astronaut as saying, ‘Recognition of risk is what made us as good as we were’ (p. 62), while another states ‘But if it [risk of death] was like, one in one hundred, you would do it, you take it ... There were so many ways it could happen’ (p. 63). Across such statements astronauts’ fetishized tolerance of risk as a part of the performance of manliness; risk became part of the astronauts’ identity, contributing to what Tom Wolfe's novel (1979) famously referred to as ‘The Right Stuff’. Yet this attitude towards physical and mental subjugation was not mere blind masochism; it was, also predicated upon a set of techniques concerned with the control of bodies wherein the astronauts were rigorously tested to confirm a high degree of corporeal control and calculation over their own bodies and perform tasks in this hostile environment – to maintain control in a situation despite the discomfort and vulnerability and get the job done. Within all these images of the astronaut there exist mutually shaping essentializing associations between masculinity, corporeality, outer space, risk and high-technology that prefigure the identity construction of ‘The Right Stuff’; becoming increasingly evident **when challenged with transgressive Other(s), namely female bodies**.[6](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#en6) Such an instance occurred in 1962, when a small group of women successfully passed the some of same physical and psychological tests as the Mercury astronauts, in a privately funded women astronaut study organized by a physiologist called Dr. William Lovelace (see [Shayler and Moule, 2003](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b37); [Weitekamp, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b39)). The women now sought NASA's support to become astronauts. ‘Lovelace's Women in Space Project’ ([Weitekamp, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b39" \o "Link to bibliographic citation)) or ‘The Mercury 13’ ([Ackmann, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b1" \o "Link to bibliographic citation)) de-stabilized many of the iterative bodily performances enacted through NASA that prescribed binary gendered assumptions.[7](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#en7) The desire of these women to become astronauts and their embodied suitability, transgressed the tacitly masculinist spatio-temporal categorization of different bodies under modernity ([Massey, 2005](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b25): 93). These bodies offered, in [Judith Butler's (1990](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b3)) terms, a sense of hope ‘in the possibility of a failure to repeat, a de-formity, or a parodic repetition that exposes the phantasmatic effect of abiding identity as a politically tenuous construction’ (p. 192). Just as some homosexual bodily performances may present a particular body in an opposing gender role (see [Butler, 1990](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b3): 167–170), thus exposing the de-stabilized ‘ground’ of both gendered identities, these astronauts tacitly desired to place a female body in a hegemonically masculine guise. Yet equally, as [Butler (1990](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b3)) makes clear, such transgressions, while sometimes transformative, are frequently accompanied by ‘punishments that attend not agreeing to believe in them’ (p. 190). For example, in 1962 Dr. Lovelace sought the Navy's permission to expand his use of their facilities to provide further evidence of the women's suitability. The official reply to the Navy was that ‘NASA does not at this time have a requirement for such a program’ ([Weitekamp, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b39" \o "Link to bibliographic citation): 128). This reply was then made known to Dr. Lovelace and the women involved; it effectively cancelled the nascent woman into space project. Here, the twin spectres of technological determinism and instrumentalism ([Feenberg, 1999](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b12" \o "Link to bibliographic citation)) are used to conjure up a belief in value-neutral, automatic and unilateral technical decision-making. In turn, this meant that the space programme could be constructed as if it were an inevitable temporal sequence, expressing natural gender roles and bodily practices, and devoid of ethno-political import ([Shayler and Moule, 2003](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b37" \o "Link to bibliographic citation)). The decision was re-examined in a heated Congressional hearing in July 1962, in which the Lovelace Women, led by Geraldine ‘Jerrie’ Cobb, were cross-examined by Congressmen partly in an attempt to illustrate their technical worth objectively, above and beyond their male peers ([Shayler and Moule, 2003](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b37" \o "Link to bibliographic citation), p. 149). The women demonstrated the capacity of their bodies to pass the same flight-tests as men, as well as possessing some important advantages, not least their requirements for less food and oxygen – on account of their smaller size ([Penley, 1997](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b35" \o "Link to bibliographic citation): 55). Ultimately, however, the women's transgressive bodily desires were blocked through quasi-judicial significations of risk. Namely, a belief asserted by NASA that astronauts had to be jet test pilots, a profession women were already barred from, because only jet test pilots possessed the necessary experience to undertake high-risk flight experiments. This point appeared already undermined by NASA's own demonstration that spacecraft could fly automatically in outer space ([Penley, 1997](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b35" \o "Link to bibliographic citation)), combined with the rejection of many skilled test pilots by the astronaut selectors, such as Chuck Yeager. NASA's Chief of Manned Space Flight, George Low, then explained to Congress how NASA support for the women-in-space project would set his work back, despite the fact that Lovelace had requested the very limited use of Navy not NASA facilities ([Ackmann, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b1" \o "Link to bibliographic citation): 166). More implicitly, it appears the decision revolved around a belief that women were excluded from becoming jet test pilots (or astronauts) because it was deemed too risky ([Weitekamp, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b39" \o "Link to bibliographic citation): 149). In this case, a masculinized relationship between technology and risk within American modernity proved intractable; accordingly **men were able to dictate thresholds of female risk**. As [Weitekamp (2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b39)) explains, the male construction of female risk prevalent in NASA was two-fold: on the one hand, NASA seemed reluctant to subject women to degrees of risk because ‘the prospect of subjecting a woman to mortal danger betrayed the rigidly defined gendered roles asserted in post-war America’ (p. 3). On the other hand, this paternalist designation of women as needing protecting might itself lead the public to conclude that if women flew in spacecraft then the craft themselves might be deemed too straightforward and safe. Thus as [Weitekamp (2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b39)) puts it, if ‘a woman could perform those tasks [it] would diminish their prestige’ (p. 3). The appropriation within NASA of risk as the legitimate means by which to exclude women from outer space appears only strengthened through its seemingly contradictory blending of different masculine identities. In this case, risk is alternately, and seemingly paradoxically, constructed as both a cipher for the rational management of hazards and the manly celebration of danger. **Here the capacity to render masculinity fractionally coherent** ([Law, 2002](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b22)) **renders it more, not less, persistent in justifying patriarchal norms**. The Mercury astronaut John Glenn, who had just returned back to Earth to a ticker-tape parade after being the first American to orbit the Earth, summarized his verdict in a final statement within the hearing:

I think this gets back to the way our social order is organized really. It is just a fact. The men go off and fight the wars and fly airplanes and come back and help design and build and test them. The fact that women are not in this field is a fact of our social order. It may be undesirable (quoted in [Weitekamp, 2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b39): 151).

While Glenn's reference to ‘undesirable’ may be telling of shifting attitudes towards women, he nevertheless asserts that there is something inherently masculine about these interactions between bodies, risk and technology, so that only particular bodies were deemed **not just more desirable but almost factually suitable**. After the hearing, female astronauts were frequently the subject of further derision, often evoking the ‘heterosexual matrix’ of submissive female sexuality, as Wernher von Braun demonstrated in a speech given at Mississippi State College (19 Nov. 1962):

Well, all I can say is that the male astronauts are all for it. And as my best friend Bob Gilruth [director of Johnston Space Center of manned spaceflight] says, we're reserving 110 pounds of payload for **recreational equipment** (from Parade Magazine Sunday Supplement, December 1962 – quoted in [Kevles, 2003](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b21): 4).

Harry Hess, a Princeton Professor and Chair of the Space Studies Board at the National Academy of Sciences, adopted a similar approach to explain away female astronauts by stating unequivocally that ‘leaving the kids behind was not part of womanhood's idealized image’ (quoted in [Kevles, 2003](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b21): 47). Ultimately, as [Weitekamp (2004](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#b39)) surmised of the Apollo era: ‘NASA had no room in its mission objectivities for acting as an agent of social change’ (p. 157). Indeed it was not until 1978, and the development of the shuttle programme, that NASA would select women as astronauts.[8](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full#en8) **By this point frontier analogies were being drawn upon retrospectively to excuse the omission of women from past astronaut selections; NASA's media rhetoric talked of the shift from explorers to pioneers, or from surveyors to homesteaders** ([Kevles, 2003](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X.2009.01822.x/full" \l "b21" \o "Link to bibliographic citation): 56). Making a similar nod to spatialized gender roles, Carolyn Huntoon, describes what she saw as the reasons behind the new policy for astronaut selections to the space shuttle: ‘It was going to have more space in it for the crews. It was going to have some of the conveniences of home that previous space capsules had not had. And the laws were changing in our country that women could no longer be discriminated against. The decision was made that we would select qualified women to fly in space’ (2002). **Again the domestication of space missions appears to go hand-in-hand with the presence of women in outer space**. In both cases, stereotypical gender roles, frequently made through a gendered (mis)reading of American frontier expansion in the 19th century, provided an ill-fitting though seemingly seductive temporal analogy to explain away almost thirty years of institutionally prejudicial accounts of bodily difference and space exploration. **This re-telling of a spatial division of labour, as a teleological sequence, where male explorers precede female pioneers, reveals the way prescriptive bodily performances were retrospectively legitimated within a heterosexual matrix, even by women themselves**.

1ac – Lyles

Nothing exemplifies NASA’s sexual preference better than Jerrie Cobb’s history with the agency. As one of the original Mercury 13, her qualifications are unmatched. Yet again & again NASA administrators have dismissed her body as irrelevant to space exploration. While NASA was willing to send Senator John Glenn into orbit a second time to conduct a geriatric study, they continue to refuse to waste resources on a similar study for women.

Lyles 1999

Latifa, Development Analyst with research contributed by Camille Paldi, NOW Launches Campaign to Send Pilot Jerrie Cobb Into Space, http://www.now.org/nnt/winter-99/jerriecobb.html

When 77-year-old Senator John Glenn blasted off in the Shuttle Discovery in October, NOW had already joined others, including lawmakers and educators, in support of a 67-year-old woman and would-be [astronaut-Jerrie Cobb](http://www.now.org/press/10-98/10-28b98.html). NOW's campaign took off before Discovery, with a [petition drive](http://www.now.org/actions/cobb.html) aimed at convincing [NASA](http://www.nasa.gov/) to grant Cobb, a record-setting pilot and Nobel Prize nominee, the space voyage she deserved, but never received. Glenn lobbied NASA to include him in another space mission as part of a geriatric study on weightlessness and aging, a study that did not plan to include women, the majority of the nation's elderly. Thirty-eight years after becoming NASA's first female astronaut candidate, Cobb remains fit and ready to serve the space program and science in broadening this study. "Jerrie Cobb has prepared her whole lifetime for a journey into space," said NOW V.P.-Membership and retired [Air Force Lt. Col. Karen Johnson](http://www.now.org/officers/kj.html). "It is time for NASA to put Jerrie where she belongs - in space and in the history books as an example for women, men, girls and boys." Cobb's flight career began at the age of 12, alongside her father in his 1936 Waco bi-wing airplane.  On her 16th birthday, Cobb passed the tests for her pilot's license. For the next two years she did odd jobs, like waxing and washing planes, in exchange for flying time. By 18, Cobb earned her commercial pilot's license and became a certified flight instructor. In 1959,  NASA researchers creating a profile of the ideal astronaut wondered if women could withstand the physical and psychological challenges of a space mission. By then, Cobb had set three world records and was elected woman of the year in aviation. Dr. Randolph Lovelace, chairman of NASA's Life Sciences Committee, selected Cobb to be the first women to take the astronaut tests. In 1960, when she reported for astronaut training, Cobb had already logged over 10,000 flight hours in 64 different types of aircraft, more than any male astronaut. John Glenn had only 5,000 hours.  Cobb also assisted in selecting 25 other women to be tested. After undergoing months of the same rigorous and grueling tests taken by Glenn and other Mercury astronauts, which included long periods of isolation and freezing the inner ears, she passed all phases with exceptional results.  Also among the 13 women (the "Mercury 13") who proved qualified for space travel was Jane Hart, who served on NOW's first national board. In spite of her test results and her extraordinary talent and ambition, Cobb was denied the chance to become the first woman in space when NASA changed the rules to count only military flight hours toward astronaut qualification - at a time when the military did not let women fly. Under this restriction, no woman could qualify for spa.c.e travel. On behalf of the Mercury 13 and future women astronauts, Cobb brought the issue before Congress. In 1962, along with Hart, she appeared before the House Space Subcommittee in support of a national program to send women into space. Their efforts were thwarted by the testimony of Glenn, who four months earlier had been the first American to orbit the earth.  Glenn, testifying on behalf of NASA, said: "It is just a fact. The men go off and fight the wars and fly the airplanes and come back and help design and build and test them. The fact that women are not in this field is a fact of our social order.  It may be undesirable." Not until 20 years after the Mercury 13 qualified would NASA send Sally Ride into orbit as the first U.S. woman astronaut in space. Cobb continued her campaign to convince officials to send her into space. Instead, she  was made a consultant and virtually ignored. In 1963, impatient with the treatment, Cobb left NASA and her job as a consultant.  She moved to South America where she used her own plane to fly medicine and supplies to her "indigenous friends" in the Amazon jungle. In 1981 she was nominated for a Nobel Peace Prize for her missionary work. Thirty-eight years after becoming NASA's first female astronaut candidate, Cobb has emerged from the wilds of the Amazon to crusade once again for her chance at space travel. NASA has received thousands of letters and petitions from individuals and organizations, including Senators Boxer, D-Calif., and Feinstein, D-Calif.  Despite this vast support, NASA explains that Cobb is not a part of their program and they have no intention of flying her. NOW has urged [NASA](http://www.nasa.gov/) to include [Jerrie Cobb](http://www.now.org/press/10-98/10-28b98.html) in a future space mission, citing the injustices against her and the need to study weightlessness and aging in women as well as men. Johnson said, "Sexism kept Jerrie Cobb out of space in the 60s. And it cannot be allowed to stand in her way now.  If NASA wants to study the effects of space travel on aging, then women must participate in these flights."

1ac – Casper & Moore

The crux of the matter revolves around the singular nature of the NASA astronaut. Because the agency only gathers data & constructs models assuming a single sex NASA is able to actively negate sexual difference as a limit in their godlike quest for space.

Casper & Moore 1995

Monica J., Lisa Jean, Inscribing Bodies, Inscribing the Future: Gender, Sex, and Reproduction in Outer Space, Sociological Perspectives, Vol. 38, No. 2 (Summer), pp. 311-333

As the tampon story illustrates, **bodies are key sites at which gender differences are constructed in this domain**. Women are seen as being different from men not only physiologically but also in terms of being taken seriously in a masculine environment. Yet, an important issue undergirding the tampon story is retrograde menstruation, a condition causing endometriosis in which menstrual blood reverses direction in a weightless environment and gets lodged in the uterus. Thus, although "periods" are one site of constructed gendered differences, menstruation contains potentially dangerous consequences for women's health in a space environment. While we can and should be concerned about physiological constraints of space travel on women's bodies, it is critical to be suspicious of how these problems are interpreted and handled by NASA. Gender differences emerge in other sites, as well. For example, pregnancy is seen as affecting female astronauts exclusively, despite the fact that sperm is still a necessary component of fertilization. This assumption leads to scientific research in which only female contraception is at issue. One scientist's research, for example, is geared toward preventing space pregnancies and controlling female hormones through contraceptive technologies. This type of research leads to another site for construction of sex differences-hormones. According to one [female] informant, women "are not stable entities," reflecting an egregious assumption that men are somehow more stable. Another important question regarding sex differences is who gets studied. Because only male astronauts went to space until the past decade, only male physiology (in both animals and humans) was studied. **Male physiology has come to be seen as the standard by which female bodies have been evaluated and, unsurprisingly, found to be different**. Thus, the prospect of longterm multigendered missions has made salient a host of issues related to bodies in space-including sex, reproduction, and pregnancy-all of which are constructed "scientifically" against the male norm as "female" problems. Constructions of social and cultural differences between men and women are also common in this domain. According to one informant, "women and men have different brains "and, therefore," think differently." Ironically reflecting cultural feminist assumptions, this scientist believes that women "think more broadly then men do and see things more clearly," which purportedly makes them better researchers. Multigendered crews are considered more harmonious, and performance levels are claimed to be better, if men and women are balanced in numbers. This raises the question of what types of work are expected of different crew members. More specifically, are women astronauts presumed to be better at emotion work (Hochschild1 983) or managing interpersonal relations than men? Further, if balance is better, why are there usually only one or two women among five to seven crew members on space missions? Female astronauts thus have dual pressures operating on them. On one hand, they are judged by NASA engineers as problematic because their bodies differ from the male standard. Female bodies are defined as introducing contamination, or at least uncertainty, into an otherwise "stable" environment; their bodies must be configured to fit into the system in order to maintain mission homeostasis. Female astronauts must also prove that they are just as capable as men and should not be treated differently. According to one scientist, they prefer to be identified as "just another piece of hardware" to avoid being gendered. Yet on the other hand, they are judged negatively by other NASA staff when they do not behave or act like women in essentialized ways. One consultant described the conflicting position in which female astronauts are placed by remarking, 'I feel sorry for women who can't enjoy the fact that they're female." Another stated that "some women are uncomfortable with their own sexuality.... They deny that they are different from men." Even if female astronauts themselves strive to avoid constructions of difference, discourses and practices within the space program continually inscribe bodies as gendered and female bodies as problematic. These constructions are grounded historically, as well, in NASA's refusal to consider women candidates as astronauts in the 1950s and 1960s when the space program was being launched. Penley (1992:204) cites a 1973 Ms. magazine expose about NASA's efforts to keep women out of the space program. Of the 25 highly qualified women pilots with advanced degrees who tested alongside the men, "the women pilots had been found to be more resistant to radiation, less subject to heart attacks, and better able to endure extremes of heat, cold, pain, noise, and loneliness." Yet, not a single woman was selected for the Mercury missions.'3 Clearly, sexism was at issue in the selection process, as illustrated in the following excerpt taken from a 1960 correspondence between the Director of Life Sciences at NASA and the head of a major biomedical research foundation: "We discussed these matters with regard to the opposite sex almost a year ago.... I still do not understand the value of this operation.... Perhaps I am just one of the old school who favors keeping them barefoot and pregnant!" And that, of course, **is the crux of the matter; women astronauts continue to be defined in "naturalized" terms emphasizing their sexual nature and procreative function**. Below, we explore more explicitly some key linkages between discourses of gender and sexuality.

1ac – Irigaray

The impact is physical & mental annihilation of difference.

Irigaray 1994

Luce,Thinking the difference: for a peaceful revolution,pg 4-7

What does it mean for our entire culture to be threatened with destruction? There are, of course, declared stakes connected with threats of war. According to the types of discourse whose economy is at issue here, such threats are the sole means of maintaining international equilibrium. I shall come back to this point. Huge amounts of capital are allocated to the development of death machines in order to ensure peace, we are told. This warlike method of organizing society is not self-evident. It has its origin in patriarchy. It has a sex. But the age of technology has given weapons of war a power that exceeds the conflicts and risks taken among patriarchs. Women, children, all living things, including elemental matter, are drawn into the maelstorm. And death and destruction cannot be associated solely with war. They are part of the physical and mental aggression to which we are constantly subjected. What we need is an overall **cultural transformation, not just a decision about war** *per se*. Patriarchal culture is based on sacrifice, crime and war. It is a culture that makes it men's duty or right to fight in order to feed themselves, to inhabit a place, and to defend their property. From time to time, patriarchy must make decision concerning war, but that is far from what is required to ensure a cultural transformation. Mankind [*le peuple des hommes*] wages war everywhere all the time with a perfectly clear conscience. Mankind is traditionally carnivorous, sometimes cannibalistic. So men must kill to eat, must increase their domination of nature in order to live or to survive, must seek on the most distant stars what no longer exists here, must defend by any means the small patch of land they are exploiting here or over there. Men always go further, exploit further, seize more, without really knowing where they are going. Men seek what they think they need without considering who they are and how their identity is defined by what they do. To overcome this ignorance, I think that mankind needs those who are persons in their own right to help them understand themselves and find their limits. Only women can play this role. Women are not genuinely responsible subjects in the patriarchal community. That is why it may be possible for them to interpret this culture in which they have less involvement and fewer interests than do men, and of which they are not themselves products to the point where they have been blinded by it. Given their relative exclusive from society, women may, from their outside perspective, reflect back a more objective image of society than can men. Moreover, in theory, women should not be in a hierarchical relationship to men. All other types of minorities potentially are. It is with a thoroughly patriarchal condescension, either unconscious or cynical, that politicians and theoreticians take an interest in them, while exploiting them, with every possible risk of the master-slave relationship being overturned. This dialectic – or absence thereof – is built into father-son relationships, and has been since the inception of patriarchy. It is doomed to failure as a means of liberation and peace because it is based on (1) *lines of descent* insufficiently counterbalanced by a horizontal relationship between the genders and (2) *exclusively male lines of descent* making any kind of dialectic between male and female ancestries and masculine and feminine genders impossible. The possibility of sex-specific cultural and political ethics is our best chance today. The world's economic and religious equilibrium is precarious. Moreover, the development of technology is subjecting our bodies to such trials that we are threatened with **physical and mental annihilation**, that our living conditions leave us no time to rest or think, whatever real leisure time we may have, and that we are continually overwhelmed, forgetful, distracted. Men's science is less concerned with prevention or the present than with curing. For objective reasons of accumulation of property, for reasons of the subjective economy of the male subject, it allows disorder and pollution to grow, while funding various types of curative medicine. Men's science helps destroy, then attempts to fix things up. But a body that has suffered is no longer the same. It bears the traces of physical and moral trauma, despair, desire for revenge, recurrent inertia. The entire male economy demonstrates a forgetting of life, a lack of recognition of debt to the mother, of maternal ancestry, of the women who do the work of producing and maintaining life. Tremendous vital resources are wasted for the sake of money. But what good is money if it is not used for life? Despite policies that encourage the birth rate for economic reasons, or sometimes for religious ones, destroying life seems to be as compulsory as giving life.

1ac – plan

The United States federal government should conduct a geriatric study beyond the outer mesosphere on women.

1ac – Shayler & Moule

Contention Two – Old Women Space

Conducting a geriatric study on women in space is necessary to the development of models that reflect sexual difference.

Shayler & Moule 2005

David, Ian A., The ISS and women’s health, Women in Space: -- Following Valentina, pg 354-355

According to a NASA pamphlet on ageing: “The population [of the US] is getting older. There are twice as many Americans over 65 as there were forty years ago. By 2050, the number of Americans 85 or older will increase 600 percent.’ Therefore, with an ageing population, the US – together with the rest of the Western world – will have to resolve a number of socio-political issues – one of which involves the medical requirements of the elderly. However, given that there are similarities between some of the weightlessness effects on the human body and ageing, it is hoped that space-based research will provide an insight into the geriatric conditions of bone loss, degeneration of the muscles and cardiovascular system, and impaired sleep. The first, and to date, only space-based geriatric study took place during the nine-day STS-95 *Discovery* mission in October-November 1998, and involved veteran Mercury astronaut, Senator John Glenn, who, having become the first American to orbit the Earth in February 1962, was making his second spaceflight after an interim of 36 years. At the age of 77, Glenn was also the oldest person to travel into space. According to Carla Garnett, in her article ‘Next Flight, Please – Glenn’, he said: I hope that by comparing what happens to me at my age in space with what happens to younger astronauts and with older people right here on Earth, maybe we can not only increase the ability of younger people to go on longer spaceflights, but also perhaps we can help eradicate many of the frailties of ageing – things like balance and muscle system changes, osteoporosis and sleep disorders. However, even though NASA and the NIH’s National Institute on Ageing had jointly sponsored the ‘geriatric study’, many people regarded Glenn’s flight on the Shuttle as merely a joyride for an influential politician and an ‘all-American hero.’ Glenn’s flight also reopened the debate surrounding Jerrie Cobb and the other twelve women from the Lovelace Class of 1961, who still remembered Glenn’s testimony at the congressional hearings and his role in preventing their access to space. As Jerri Truhill remarked: ‘I was invited to the launch by NASA, and declined, as we all did, except Jerrie Cobb. [Glenn] shot us down in Congress. A similar sentiment was also expressed by Wally Funk: ‘Frankly, this was a political thing, and I hope he didn’t waste too much of the tax-payers’ dollars when he took a young astronaut’s slot who was working for STS-95.’ Gene Nora Jessen, however, was more magnanimous: ‘I’m a strong supporter of our country’s space programme, and believe that NASA needs all the good press it can dredge up. If John Glenn’s planned flight lends favourable publicity and the prestige to the space programme, that’s all to the good.’ Many Americans also believed that if John Glenn could make two spaceflights (the second being under the auspices of the ‘geriatric study’), then NASA should ‘right the wrong’ and send Jerrie Cobb – who was still carrying out her humanitarian flights in the Amazon and had a recorded medical history – into space. Taking up this cause was the National Organisation for Women, which mounted a campaign (aimed at NASA) to have Jerrie Cobb – who was still carrying out her humanitarian flights in the Amazon and had a recorded medical history – into space. Taking up this cause was the National Organisation for Women, which mounted a campaign (aimed at NASA) to have Jerrie Cobb participate in the ‘geriatric study’. As Patricia Ireland, NOW’s President, remarked in a press release: ‘If NASA wants to study the effects of space travel on ageing, then it is imperative to make these studies on women. After all, women are the majority of the elderly.’ Therefore, given that the ageing population is predominately female, what benefit, if any, do women receive from Glenn’s space-based results? Responding to this question in her interview with Nicola Humphries, Dr Jeanne Becker – now Associate Director of the National Biomedical Research Institute (a NASA-funded institution) – considered that elderly women ‘do get a benefit from some of the results… There is a difference physiologically, of course… As a model for the ageing population I think that [NASA] needs to send a women to compare the results to [those] they got with Glenn.’ And what, if any, are the flaws of sending an aged man intos pace and then applying the results to a woman? Again, Dr Becker, in her interview with Nicola Humphries, responded by saying: ‘Well, there are differences, and you have to take into account the post-menopausal status of the woman. Obviously their hormones are different … You can’t directly compare everything you get with male data to female data. It’s sort of like oranges and tangerines, which is not like apples and oranges. It’s not totally opposite; there are some similarities, but there are some real basic differences. You are not going to get a handle on what those differences are unless you actually send a woman up.’

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Finally, demanding NASA develop additional research models that recognize how women in space differ is a critical challenge global sexual discrimination.

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Mariel, NASA: Making space for women, MURJournal, Vol 11, Fall, http://web.mit.edu/murj/www/v11/v11-Features/v11-f2.pdf

The policy is also expected to increase the safety of women astronauts, who will be able to be sure that the countermeasures and health care solutions will surely work on them as well as on men. The increased understanding of women in space would likely be extended to knowledge about the health of women on Earth. It is very likely that women in the general population would benefit from research done by NASA. NASA's adoption of this policy may improve its image. A policy that is somewhat progressive, especially since it would be done without a mandate, may lead many to appreciate NASA's apparent focus on safety and equality. Perhaps the policy could be extended to include hardware, and many women astronauts would benefit from items such as well-fitting space suits that allow for optimal productivity. This increased productivity could help NASA become more efficient. A small suit would also allow more women to participate in research studies, increasing the value of the inclusion policy. Once this policy is in place, it could help to change the attitude towards women at NASA in general, drawing attention to the importance of sex/gender equality even in areas beyond research. A more woman-friendly attitude at NASA could lead to more women applicants and more women working in the NASA centers and the astronaut corps. The policy of inclusion of women in NASA-funded human research will have far-reaching effects on all of NASA. Not only will the Office of Biological and Physical research be affected, but all of NASA and **perhaps the entire world**.