Men are from Mars. Women are from Venus

Transgender are from Earth. And Children are from Heaven.

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with Yves P. Huin
Men Are from Mars, Women Are from Venus (1992) is a book written by American author and relationship counselor John Gray, after he had earned ‘degrees’ in meditation and taken a correspondence course in psychology. (John Gray was found to have received his degree from a diploma mill and was not actually the recipient of a real doctorate.)

The book states that most common relationship problems between men and women are a result of fundamental psychological differences between the sexes, which the author exemplifies by means of its eponymous metaphor: that men and women are from distinct planets -men from Mars and women from Venus- and that each sex is
acclimated to its own planet's society and customs, but not to those of the other. One example is men's complaint that if they offer solutions to problems that women bring up in conversation, the women are not necessarily interested in solving those problems, but mainly want to talk about them. The book asserts each sex can be understood in terms of distinct ways they respond to stress and stressful situations.

The book and its central metaphor have become a part of popular culture.

A major idea put forth in Gray's book regards the difference in the way the genders react to stress. He states when male tolerance to stressful situations is exceeded, they withdraw temporarily, "retreating into their cave", so to speak. Often, they literally retreat: for example, to the garage, or to go spend time with friends. In their "caves", men are not necessarily focused on the problem at hand. Yet this "timeout" lets them distance themselves from the problem and relax, allowing them to reexamine the problem later from a fresh perspective. Gray holds that male retreat into the cave has historically been hard for women to understand. When women become unduly stressed, their natural reaction is to talk with someone close about it (even if talking doesn't provide a solution to the problem at hand). This sets up a natural dynamic where the man retreats as the woman tries to get closer, which becomes a major source of conflict between them.

The book has been criticized for placing human psychology into stereotypes: men and women are not fundamentally different, contrary to what Gray suggests in his book. The perceived differences between men and women are ultimately a social construction, and that socially and politically, men and women want the same things.

A study by Bobbi Carothers and Harry Reis involving over 13,000 individuals claims that men and women generally do not fall into different groups. "Thus, contrary to the assertions of pop psychology titles like Men Are from Mars, Women Are from Venus, it is untrue that men and women think about their relationships in qualitatively different ways."

But, in every day’s life, everywhere these differences do exist: biologically and physically at conception; then hormones rush in (and out at menopause for women); social, cultural, educational, religious separations; and many more barriers, fences – even barricades- are obvious, and developing in too many societies. Most are based on historical prejudices, political and societal obsolete traditions dating back to the
Paleolithic, and more often on male-imposed religious ukases. Hence the question we should now ask: are these differences groundless, or is there a real, proven set of irreconcilable dissimilarities?

**Differences in Brains of Men and Women**

Do the anatomical differences between men and women—sex organs, facial hair, and the like—extend to our brains? The question has been as difficult to answer as it has been controversial. Now, the largest brain-imaging study of its kind indeed finds some sex-specific patterns, but overall more similarities than differences. The work raises new questions about how brain differences between the sexes may influence intelligence and behavior.

For decades, brain scientists have noticed that on average, male brains tend to have slightly higher total brain volume than female ones, even when corrected for males’ larger average body size. But it has proved notoriously tricky to pin down exactly which substructures within the brain are voluminous. Most studies have looked at relatively small sample sizes typically fewer than 100 brains - making large-scale
conclusions impossible. In the new study, a team of researchers led by psychologist Stuart Ritchie, a postdoctoral fellow at the University of Edinburgh, turned to data from UK Biobank, an ongoing, long-term biomedical study of people living in the United Kingdom with 500,000 enrollees. A subset of those enrolled in the study underwent brain scans using MRI. In 2750 women and 2466 men aged 44–77, Ritchie and his colleagues examined the volumes of 68 regions within the brain, as well as the thickness of the cerebral cortex, the brain’s wrinkly outer layer thought to be important in consciousness, language, memory, perception, and other functions. Adjusting for age, on average, they found that women tended to have significantly thicker cortices than men. Thicker cortices have been associated with higher scores on a variety of cognitive and general intelligence tests. Meanwhile, men had higher brain volumes than women in every subcortical region they looked at, including the hippocampus (which plays broad roles in memory and spatial awareness), the amygdala (emotions, memory, and decision-making), striatum (learning, inhibition, and reward processing), and thalamus (processing and relaying sensory information to other parts of the brain).

When the researchers adjusted the numbers to look at the subcortical regions relative to overall brain size, the comparisons became much closer: There were only 14 regions where men had higher brain volume and 10 regions where women did. Volumes and cortical thickness between men also tended to vary much more than they did between women, the researchers report this month (April 2017) in a paper posted to the bioRxiv server, which makes articles available before they have been peer reviewed.

That’s intriguing because it lines up with previous work looking at sex and IQ tests. “[That previous study] finds no average difference in intelligence, but males were more variable than females,” Ritchie says. “This is why our finding that male participants’ brains were, in most measures, more variable than female participants’ brains is so interesting. It fits with a lot of other evidence that seems to point toward males being more variable physically and mentally.”

Despite the study’s consistent sex-linked patterns, the researchers also found considerable overlap between men and women in brain volume and cortical thickness, just as you might find in height. In other words, just by looking at the brain scan, or height, of someone plucked at random from the study, researchers would be
hard pressed to say whether it came from a man or woman. That suggests both sexes’ brains are far more similar than they are different. The study didn’t account for whether participants’ gender matched their biological designation as male or female. The study’s sheer size makes the results convincing, writes Amber Ruigrok, a neuroscientist at the University of Cambridge in the United Kingdom who has studied sex differences in the brain. “Larger overall volumes in males and higher cortical thickness in females fits with findings from previous research. But since previous research mostly used relatively small sample sizes, this study confirms these predictions.” Ruigrok notes one factor that should be addressed in future studies: menopause. Many of the women in the study were in the age range of the stages of menopause, and hormonal fluctuations have been shown to influence brain structures. That may have played some role in the sex differences noted in the study.

The controversial -and still unsettled- question is whether these patterns mean anything to intelligence or behavior. Though popular culture is replete with supposed examples of intellectual and behavioral differences between the sexes, only a few, like higher physical aggression in men, have been borne out by scientific research. For the moment, Ritchie says his work isn’t equipped to answer such heady questions: he is focused on accurately describing the differences in the male and female brain, not speculating on what they could mean. And it’s important to consider that different brain sizes and regions don’t necessarily translate to actual behavioral differences, like intelligence: “Our manuscript is just about describing the differences, and we can’t say anything about the causes of those differences,” Ritchie told New York Magazine. Different environmental and social factors play a huge role in determining the ways we think and interact with each other. Ritchie is confident, though, that understanding the structural variability can help determine why certain diseases affect men and women differently. Understanding variations in brain structure can help develop better, sex specific treatments for them.

Women tend to have more youthful brains than their male counterparts — at least when it comes to metabolism. While age reduces the metabolism of all brains, women retain a higher rate throughout the lifespan, researchers reported on February 4th, 2019 in the journal Proceedings of the National Academy of Sciences.
"Females had a younger brain age relative to males," says Dr. Manu Goyal, an assistant professor of radiology and neurology at Washington University School of Medicine in St. Louis. And that may mean women are better equipped to learn and be creative in later life, he says.

The finding is "great news for many women," says Roberta Diaz Brinton, who wasn't connected with the study and directs the Center for Innovation in Brain Science at the University of Arizona Health Sciences. But she cautions that even though women's brain metabolism is higher overall, some women's brains experience a dramatic metabolic decline around menopause, leaving them vulnerable to Alzheimer's.

The study came after Goyal and a team of researchers studied the brain scans of 205 people whose ages ranged from 20 to 82. Positron emission tomography scans of
these people assessed metabolism by measuring how much oxygen and glucose was being used at many different locations in the brain. The team initially hoped to use the metabolic information to predict a person's age. So, they had a computer study how metabolism changed in both men and women. Then they reversed the process and had the computer estimate a person's age based on brain metabolism data.

The approach worked. "It was highly predictive of age," Goyal says. Even so, for some people there was a big difference between their brain age and their chronological age. And Goyal says the team wondered whether this difference was more pronounced in men or women.

So, they checked.

"When we looked at males vs. females, we did find an effect," Goyal says. "We found in fact that females had a younger brain age relative to males." Women’s brains appeared about four years younger, on average. But it's still not clear why. "It makes us wonder, are hormones involved in brain metabolism and how it ages?" Goyal says. Or is it something else, like genetics? Whatever the cause, higher metabolism may give female brains an edge when it comes to learning and creativity in later life, Goyal says. "But it might also set up the brain for certain vulnerabilities," he says, including a higher risk of developing Alzheimer's disease.

Brinton sees it differently. She thinks women's higher brain metabolism protects them from Alzheimer's when they are young. But menopause, she says, causes an "energy transition in the brain," one that affects the brain metabolism of some women far more than others. Brinton's research suggests that the women most likely to experience a dramatic drop are those who carry a gene variant called APOE4, which increases a person's risk of developing Alzheimer’s, or those who have risk factors for Type 2 diabetes.

"It's those women who will begin to develop the pathology of Alzheimer's disease earlier," she says. As brain metabolism decreases in these women, Brinton says, there's an increase in the sticky proteins that are associated with Alzheimer's. "This is a process that starts very early in the aging process for some women," Brinton says, "And we can intervene."

How? The steps are a lot like those intended to prevent diabetes, Brinton says. They include diet, exercise and drugs that help the brain and body metabolize sugar.
Nature’s Most Creative Copulators

Googling “sex” in April 2017 yields approximately 3.140 billion results in 0.58 seconds. That’s nearly four times as many hits as one gets when Googling “religion,” three times as many as “politics,” and about 50 percent more than “death” -but slightly less than “food.” If representation on the internet tells us anything about what matters to humans, then sex and food are darned important. But we don’t need Google to tell us that. Food and sex are the basic goals of life for most organisms, not just humans.

As far as sex is concerned, animals generally come in two variants: female and male. We call these the “sexes,” and they are the two complementary manifestations of animal biology necessary for reproduction. In most cases, one of each sex is needed to get together and physically exchange gametes (either egg or sperm, which is how we classify biological “female” or “male”) to produce an offspring. To state the obvious, this physical exchange is at the core of species’ ability to successfully leave descendants. Because sex is so important, sexually reproducing animals have physiological systems that reward them for engaging in it. Sex feels good. And because it feels good, many mammals take it up a notch -they have sex (much) more often than is necessary to reproduce. We call this “social sex,” and it comes with costs. Those animals that have more social sex also have more sexually transmitted infections (STIs). Increased sexual activity means taking on more risks to health -a choice we might think would soon become extinct given the fundamental evolutionary cost, even if sex does feel good. But in highly social animals (like canids, whales, and primates), more sex is apparently worth the STI risk, and social sex is common. The fact that some groups of animals so gladly take the risks of increased sexual activity leads many researchers to believe that there is more than just pleasure behind social sex. Primates are among the social sex champions of the animal kingdom, so it should come as no surprise that they are also the STI champions of the animal world. It should be even less surprising that humans are the STI champions of the primates. We, as a species, have lots of sex. That means it must be important.

But humans don’t just have more sex; we take it to a whole new level. Jared Diamond in his aptly titled book Why Is Sex Fun? The Evolution of Human Sexuality
states it best, “Human sexuality is ... bizarrely unusual by the standards of other animal species.” Humans also have sex in many ways. For men and women aged 25 to 44, 98 percent have had heterosexual genital-genital sex, 90 percent have had oral sex, 36 to 44 percent have had anal sex, and 6 to 12 percent have had homosexual sex. These numbers make most other species on the planet look like prudes.

By age 24, 1 in 3 sexually active people have at least one non-HIV STI, and more than 19 million new STIs occur each year in the United States alone. Bottom line: Humans have more STIs than other organisms because humans have more sex, more kinds of sex, and more contexts for -and issues with- sex than any other animal. **We are crazy about it.**

Sex is more than just an act, a goal, or a biological pattern; **it's a central part of our lives.** We write about sex, we think about sex, we talk about sex, we have prohibitions about sex, and we have laws, ideologies, and assumptions about sex. We watch sex we are not participating in; we pay for sex, and we use sex as a tool, a weapon, and a healing practice. We are so creative with sex that we've even developed a distinctively human category to mess with the basic biology of sex: **gender.** “Gender” is a catchall term for the roles, assumptions, and expectations humans have for the biological sexes, and it creates a problem when analyzing human sexuality. When humans say “male” or “female,” they are almost always referring to gender as opposed to biological sex -the two are not the same. Any specific human’s gender behavior profile is not simply determined by their biological sex or their patterns of sexual activity. This makes human sexuality (the “who, how, and why” of having sex) especially challenging to understand and explain.

There are important differences between the sexes: Women give birth and lactate; men are usually larger and more muscular; and the levels and patterns of some hormones vary between the sexes. There are also important similarities: Our reproductive organs come from the same embryonic tissues; our bodies are made of the same material and structures our hormones and brains are (almost) the same; and we are the same species.

Humans have a unique sex/gender muddle that it is both wonderful and a giant pain. Often confused with the concept of biological sexes, “gender” involves the creative expression of one’s social identity.
The combining of gametes from two parents to produce an offspring, sexual reproduction, evolved hundreds of millions of years ago from asexual organisms that reproduced by splitting in half or by budding off copies of themselves. Sex evolved (most likely) as a response to dealing with changing environments. Reproducing by sex creates new variation by combining genetic data from two parents, providing the offspring with more options.

Imagine a simple organism living in a pond. Let’s say this amoeba-like thing filters water to get food. It might do just fine copying itself as long as the water temperature stays constant, but what if things warm up? The filtering system it uses might not be able to accommodate the new temperatures. But maybe there are lots of similar organisms in the pond and each is a little different from the others in its ability to deal with temperature fluctuation. Blending with another similar but slightly different organism (sexual reproduction) could be a good option, as it can give the resulting offspring more flexibility and thus a higher chance of getting both parents’ DNA into subsequent generations than either had by reproducing asexually.

But not all new variants do better. In fact, some do worse. Such is the risk of sex. It is the overall payoff that matters: if some offspring do better in comparison with the asexual reproducers, the system (sex) has a chance of catching on. Added variation needs to work out in favor of organisms only on average to keep sexual reproduction in a system. This is a good thing; otherwise we’d all be asexual reproducers and the world would be a lot less interesting.

Sex is a biological way to generate more variation for organisms, in order for them to have better chances at meeting the challenges the world throws at them. It is a risky venture. Given that, one would think that most organisms would be conservative about sex, thereby minimizing the chances for problems. For many insects, fish, and reptiles, sexual reproduction is reasonably straightforward. There is a specific time in life when their reproductive biology turns on, and they go for it: Males and females exchange gametes. One, both, or neither sex takes care of the resulting fertilized eggs until the young hatch, and they are on their own. Then the reproduction biology turns off, and the animals go back to their regular, nonsexual lives, or they die.

Mammals (like us) are a bit different. Mammals have internal fertilization and gestation. The gametes need to get together inside the female’s body and stay there
as they develop into the embryo and then the fetus. Then the female gives live birth and must nurse the offspring until it, or they, are ready to fend for themselves food-wise. This type of sexual system adds certain aspects to mammalian bodies and behavior. Females have mammary glands and nipples for lactation and particularly structured genitals and reproductive tracts to facilitate both sexual intercourse and live birth via the same vaginal pathway. Males have complementary genitals to the females’ and tend to have external testicles and often an external penis (unlike most animals), leaving male mammals’ genitals more exposed than those of other animals.

Humans are strange-looking mammals. We are primates, and primate females have mammary glands like other mammals, but monkeys, apes, and humans have only one pair, whereas most mammals have between three and five pairs. In humans, that one pair is also surrounded by a lot of fatty tissue that develops at puberty. Humans also stand upright, so that one pair of mammary glands surrounded by fatty tissue takes on a distinctive look: Women have breasts. Men, unlike most other mammals, have a penis that lacks a bone to assist in erection [although Victor Hugo famously (or infamously) said until the age of 80, I thought I had a bone]. The human penis relies on a complicated blood hydraulic system to become erect and useful for sexual activity. It is also shaped by the structure of the female genitals, which results in human males having the thickest relative penises of the primates. Humans also walk on two legs. This leads to the realignment of a set of muscles called the gluteus maximus and minimus to help with the propulsion stride (pushing our bodies forward when we walk or run). These muscles wrap around the back of the pelvic girdle (the cluster of bones that make up your midsection, connecting your upper and lower body), giving us a large bulge where other animals have none, one that is often also a location for storing fat: humans have butts. We are also relatively hairless, which is very atypical for a land-based non-burrowing mammal.

Breasts, butts, relatively hairless bodies, and atypical male penises—humans are weird...

Sex for mammals, including humans, is tied to complex bodies, behavior, and physiology and to the raising of young (for females and in many cases for males as well). This means that sex is a lot more than the physical act of copulation. While most mammals stay reasonably conservative in their sexual systems, sex is anything but boring. Many mammals have certain times of the year when their reproductive
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tracts “turn on.” These mating seasons are referred to as “being in heat,” “rutting,” or “estrous,” -and you’d better not get in the way when they arrive! Mammals’ bodies, including their genitals, become primed with hormonal and sensory floods, and they want sex. We know that for mammals sex feels especially good. Both males and females can have orgasms and are usually capable of many copulation events in the “turned on” period.

Mammalian sex is characterized by a lot of running around and behavioral and physical negotiations by males and females. Once the mating season is completed, the sex drive turns down (or off) and most mammals go back to their daily lives. Some mammals don’t “turn on” sexually for only brief windows in the calendar; their sexual biology functions across the year. In such cases, both males and females can engage in sexual activity even when they are not seeking to reproduce. This is where things get interesting and our role as primates becomes informative.

In most macaque species, there are one or two peak times of the year for mating. At those times, most females go through a variety of physiological changes. The skin around the females’ vaginas and anuses can become slightly swollen (massively so in some species) such that any male can notice. These females also undergo behavioral shifts, causing them to spend more than the usual amount of time following males and presenting their rear ends to those males in an invitation to have sex. If the males do not respond well, females will shake their heads in front of the male’s face, sometimes grabbing his facial fur for emphasis. If that fails, they might grab the male’s genitals as a last-ditch effort.

Males also undergo change during this time, largely in response to the females. They spend more energy trying to get near the females who are sexually active to sniff their rear ends, copulate, and groom with them.

Females usually mate with many males, but they also exert choice, denying some males and favoring others. Males do occasionally try to force females to have sex with them but, in most macaque species, have little luck. (Females who do not want to have sex either sit down or walk away.) During this time, there are also a lot of scuffles between males, as many of them try to gain access to the same female, sometimes disregarding the established social hierarchies.
The females in most macaque species undergo physical and behavioral changes during peak mating times, signaling to potential mates that they are ready.

Sex, or the possibility of it, often influences macaques to rebel against the established social norms. But not all macaque sex happens exclusively in those mating periods or in reproductive contexts. Younger males will sometimes hang out with one another and manipulate one another’s genitals, sometimes mounting one another and occasionally copulating. Adult females, especially in certain macaque species (like the Japanese macaque), will also participate in homosexual sexual activity, mounting one another and behaving like they do when copulating with males. Males also masturbate, sometimes often, and occasionally females do as well but not nearly as much. Most important, aspects of sexual behavior like mounting and the touching and massaging of genitals show up in a lot of non-copulatory situations - after fights, in moments of stress, and sometimes in quiet moments between two good friends. Macaques use aspects of sexual behavior as part of their social networking, not just for reproduction.

Chimpanzees have even more complicated sexual lives than macaques. Female
chimpanzees have large swellings around their genitals that peak during ovulation, indicating their fertility status. Male chimpanzees, especially high-ranking ones, take this very seriously and spend a lot of time next to those females, copulating frequently with them or at least giving it the college try. Chimpanzee females do not always want to copulate with these males. In the eastern chimpanzees, this reluctance can result in a lot of fighting. Males will attack females, sometimes ganging up on them in efforts to coerce them into sex. Other times, the male and female not only want to be together but will leave the other members of the community behind and go spend up to a few days together, feeding, grooming, and having lots of sex, just the two of them. Outside of these mating contexts, chimps use a lot of social sex. Males, especially those who are good friends and allies, often seek each other out during times of stress and fondle one another’s genitals as a bonding and stress-reducing behavior. Females also engage in some homosexual touching interactions. Sex in chimpanzees, like in macaques, can be a social tool.

Bonobos (the chimpanzee species Pan paniscus) are the apes that have lots of sex. Bonobos are chimpanzees, so they have the same types of swellings and issues around sex that other chimps do. However, there are several differences. Females are usually dominant to males, so no males can coerce females into having sex, but in bonobos, it is rare that they would have to. In bonobo society, males and females of all ages use sexual activity (homosexual and heterosexual) as a social tool. When
they see each other after a long absence, they have a brief bout of sex by way of a greeting. When they fight over a big chunk of fruit, they will often resolve the conflict by having sex. Bonobos use sexual activity as a type of social glue. This does not mean that they always have sex; that they don't fight; or that sex is all they do. However, bonobos are at the high end of the nonhuman primates as far as frequency of sexual activity.

Human females do not have the swelling around the genitals like some of the other primates, nor do they have specific mating cycles or massive behavioral shifts like we see in macaque females. Human females, like all mammals, have menstrual cycles but typically have a larger blood flow associated with the cycle than other mammals. Both males and females, if in good health, are capable of sexual activity year-round. Humans, like other primates, seek one another out for sexual activity and have lots of social sex. But here is where many of the similarities cease. Our sexuality is tied to the societies we live in; the rules, laws, and belief systems we participate in; and the partnerships, bonds, and alliances we form, rupture, and create anew. Humans are the only mammalian species we know of where a percentage of the species has a consistent homosexual sexual orientation; and we are the only species to take vows of chastity (and sometimes maintain them). We are very rare among primates in that we often form long-term bonds between two individuals that can be related to sex and reproduction. We are unique in having sets of symbolic associations between sex, age, ethics, morality, and behavior: for humans, when, how, where, and with whom we have sex matters a great deal, not just to the individuals having sex but to their communities and the society. Humans have an enormous range of sexual tastes, desires, and habits, many of which veer very, very far from anything having to do with reproduction. Humans have taken the basic mammalian package associated with sex, and the primate twists on that package, and created a whole new way to have, think about, represent, regulate, and embody sex.

To understand how we got so creative with sex, there are three main aspects of the human story to understand: parenting and bonding, gender, and the fact that for humans, sex is never just sex.
Gender

Indeed, **gender** is the range of characteristics pertaining to, and differentiating between, masculinity and femininity. Depending on the context, these characteristics **may include biological sex** (i.e. the state of being male, female or an intersex variation which may complicate sex assignment), sex-based social structures (including gender roles and other social roles), or gender identity. Some cultures have specific gender roles that can be considered distinct from male and female, such as the *hijra (chhaka)* of India and Pakistan.

In other contexts, including some areas of social sciences, gender includes sex or replaces it. For instance, in non-human animal research, gender is commonly used to refer to the biological sex of the animals.

The social sciences have a branch devoted to gender studies. Other sciences, such as sexology and neuroscience, are also interested in the subject. While the social sciences sometimes approach gender as a social construct, and gender studies particularly do, research in the natural sciences investigates whether biological differences in males and females influence the development of gender in humans; both inform debate about how far biological differences influence the formation of gender identity. In the last two decades of the 20th century, the use of gender in academia has increased greatly, outnumbering uses of sex in the social sciences. While the spread of the word in science publications can be attributed to the influence of feminism, its use as a synonym for sex is attributed to the failure to grasp
the distinction made in feminist theory, and the distinction has sometimes become blurred with the theory itself: “Among the reasons that working scientists have given me for choosing gender rather than sex in biological contexts are desires to signal sympathy with feminist goals, to use a more academic term, or to avoid the connotation of copulation” (David Haig. Arch Sex Behav 2004; 33:87-96).

**Gender identity** refers to a personal identification with a particular gender and gender role in society. The term *woman* has historically been used interchangeably regarding the female body, though more recently this usage has been viewed as controversial by some feminists. Categorizing males and females into social roles creates a problem, because individuals feel they must be at one end of a linear spectrum and must identify themselves as man or woman, rather than being allowed to choose a section in between. Globally, communities interpret biological differences between men and women to create a set of social expectations that define the behaviors that are “appropriate” for men and women and determine women’s and men’s different access to rights, resources, power in society and health behaviors.

Michel Foucault said that as sexual subjects, humans are the object of **power**, which is not an institution or structure, rather it is a signifier or name attributed to “complex strategical situation”. Because of this, power is what determines individual attributes, behaviors, etc. and people are a part of an ontologically and epistemologically constructed set of names and labels.

Such as, being *female* characterizes one as a woman, and being a *woman* signifies one as weak, emotional, and irrational, and is incapable of actions attributed to a *man*.

The assignment of gender involves considering the physiological and biological attributes assigned by nature followed by the imposition of the socially constructed conduct. The social label of being classified into one or the other sex is necessary for the medical stamp on birth certificates But the socially constructed rules are at a cross road with the assignment of a particular gender to a person. Gender ambiguity deals with having the freedom to choose, manipulate and create a personal niche within any defined socially constructed code of conduct while gender fluidity is outlawing all the rules of cultural gender assignment. It does not accept the prevalence of the two rigidly defined genders “*man*” and “*woman*” and believes in freedom to choose any kind of gender with no rules, no defined boundaries and no
fulfilling of expectations associated with any gender. Both these definitions are facing opposite directions with their own defined set of rules and criteria on which the said systems are based.

Sexologist John Money coined the term gender role in 1955. The term gender role is defined as the actions or responses that may reveal their status as boy, man, girl or woman, respectively. It includes, but is not restricted to, sexuality in the sense of eroticism. Elements surrounding gender roles include clothing, speech patterns, movement, occupations, and other factors not limited to biological sex. In contrast to taxonomic approaches, some feminist philosophers have argued that gender “is a vast orchestration of subtle mediations between oneself and others”, rather than a “private cause behind manifest behaviours” (Timothy Laurie Qualit Res J 2014;14:64-78). There are many, many more areas involved in, with, about, scrutinizing, or influencing gender. This may reflect the unease (or malaise) that many groups – mostly in the Christian areas- display with sex. When will acceptance of to the complexity of human diversity in physiology, social roles –as well as remedy to discrimination and inequality- will be addressed is a vital question for those who soon be the majority populating the planet –and soon Mars.
Mary Frith (“Moll Cutpurse”) scandalized 17th century society by wearing male clothing, smoking in public, and otherwise defying gender roles.

Most societies have only two distinct, broad classes of gender roles, masculine and feminine, that correspond with the biological sexes of male and female. When a baby is born, society allocates the child to one sex or the other, based on what their genitals resemble. However, some societies explicitly incorporate people who adopt the gender role opposite to their biological sex; for example, the two-spirit people of some indigenous American peoples. Other societies include well-developed roles that are explicitly considered distinct from archetypal female and male roles in those societies. In the language of the sociology of gender, they comprise a third gender,
distinct from biological sex (sometimes the basis for the role does include intersexuality or incorporates eunuchs). One such gender role is that adopted by the hijras of India and Pakistan. Another example may be the muxe (pronounced [ˈmuʃe]), found in the state of Oaxaca, in southern Mexico, “beyond gay and straight.” The Bugis people of Sulawesi, Indonesia have a tradition that incorporates all the features above. Some non-human animal species also have more than two genders, in that there might be multiple templates for behavior available to individual organisms with a given biological sex.

**Gender studies** is a field of interdisciplinary study and academic field devoted to gender, gender identity and gendered representation as central categories of analysis. This field includes Women’s studies (concerning women, feminity, their gender roles and politics, and feminism, Men’s studies (concerning men, masculinity, their gender roles, and politics), and LGBT studies. Sometimes Gender studies is offered together with Study of Sexuality. These disciplines study gender and sexuality in the fields of literature and language, history, political science, sociology, anthropology, cinema and media studies, human development, law, and medicine. They also analyze race, ethnicity, location, nationality, and disability.

The difference between the sociological and popular definitions of gender involve a different dichotomy and focus. For example, the sociological approach to “gender” (social roles: female versus male) focuses on the difference in (economic/power) position between a male CEO (disregarding the fact that he is heterosexual or homosexual) to female workers in his employ (disregarding whether they are straight or gay). However, the popular sexual self-conception approach (self-conception: gay versus straight) focuses on the different self-conceptions and social conceptions of those who are gay/straight, in comparison with those who are straight (disregarding what might be vastly differing economic and power positions between female and male groups in each category). There is then, in relation to definition of and approaches to “gender”, a tension between historic feminist sociology and contemporary homosexual sociology.

A third gender or third sex is a concept in which individuals are categorized, either by themselves or by society, as neither man nor woman. It also describes a social category present in those societies that recognize three or more genders. The concepts of “third”, “fourth”, and “some” gender roles, which differ from that culture's
two main roles of “man” and “woman”, while found in a number of non-Western cultures, is still somewhat new to mainstream Western culture and can be difficult for some to understand within traditional Western conceptual thought. Several countries now recognize third or non-binary genders. The first person known to be legally of indeterminate gender (that is, neither man or woman in legal terms) is Alex MacFarlane, from Australia 2003).

For intersex people, born according to the UN Office of the High Commissioner for Human Rights, “do not fit typical binary notions of male or female bodies”, access to any form of identification document with a gender marker may be an issue. For other intersex people, there may be issues in securing the same rights as other individuals assigned male or female; other intersex people may seek non-binary gender recognition.

‘The world has always belonged to males,’ wrote Simone de Beauvoir in The Second Sex (1949), ‘and none of the reasons given for this have ever seemed sufficient.’ Given the manifestly equal intelligence and capabilities of women, how could there have
been so many centuries of sexual domination, of patriarchy? To many, the answers
to this question have seemed as obvious as the privileges of power in any other form
of social domination. As a result, critiques of patriarchy often take the shape of a
struggle for power, a fight for control of the social agenda.

In recent years, with astonishing rapidity, widespread social opposition to same-sex
marriage has evaporated in many parts of the world. Reliable birth control, safe and
legal access to abortion, and new kinship formations make the propagation of life
and the raising of children seem less and less the result of sexual reproduction. At
the same time, we are living through one of the most profound transformations in
human history: the erosion of a gender-based division of labour. These
developments do not just reflect newly discovered moral facts - ‘equality’ or ‘dignity’.

At some point in the ancient past, human beings figured out that we reproduce
sexually – that the reproduction of human life results from significant acts for which
we can hold one another accountable. The way we learned this must itself have been
by attending to how or when we touch one another and engage one another sexually.
Moreover, learning how we, as humans, reproduced must have also completely
transformed the very ways in which we reproduce. Once our ancestors understood
not only that specific acts were potentially procreative but also that only certain
individuals – at precise stages of life – could bear children, a socially significant
division between the genders took hold, in the form of restrictions placed upon
women. Of course, much about sexual reproduction remained (and remains)
mysterious: miscarriages, multiple births, the onset of pain. For a long time, the only
aspect of sexual reproduction that was ‘known’ with confidence was the simple fact
that only women of a certain age might bear children following particular sex acts
with men. Among the consequences of this limited knowledge was an intensely
pressing question: what are we doing with one another sexually when we are not
procreating, or when sexual reproduction is known to be an impossible outcome of
the sexual interaction? Sadly, the certainty that one is acting sexually – not just driven
by appetites or desires beyond one’s control – can be readily achieved through
institutionalized sexual domination, by installing a gendered hierarchy of ‘active’ and
‘passive’ sexual roles. The mind boggles when considering the countless ‘initiations’,
the deep and lasting ways in which human beings have lived this out – the systematic
abuse of boys and girls, prostitution and sex trafficking, wives and concubines,
socially sanctioned harassment and abuse—whereby the certainty of ‘acting sexually’ is achieved for some in the subjugation of others.

‘Sexual reproduction’ and ‘sexual domination’ remain, to this day, powerful ways to explain human sexual activity. Only when human beings began to understand themselves as sexual lovers—striving to understand and meet the demands of mutuality with each other—does the supremacy of those earlier explanations get challenged. Lovemaking, in other words, is a social-historical achievement—something realized in the erosion of the power of ‘sexual reproduction’ (biological necessity) and ‘sexual domination’ to explain what humans are doing with each other, sexually.

Two essential conditions for lovemaking—and forms of social life organized around bonds of sexual love—are the safe and legal availability of abortion and contraception. And, once fertile men and women can separate their sexual affairs from the claims of sexual reproduction, then ‘gender’ itself begins to falter as a basis on which we can conduct our love affairs. In light of the availability of abortion, contraception and new reproductive technologies—that is, thanks to the provisional liberation of sex from biological reproduction and gender-based divisions of labor—there is no longer any reason to regard love itself as gender-based. In our own time, these historical transformations have thus made possible the spreading acceptance of same-sex kinship and gender-indeterminate relationships.

In the small indigenous territory of Guna Yala off Panama’s eastern coast, a flourishing ‘third gender’ community is defying stereotypes—and venerating women. Guna Yala, also known as San Blas is an archipelago off Panama’s eastern coast that contains more than 300 islands, 49 of which are inhabited by the indigenous Guna people. More than 50,000 strong, the Gunas still live as their ancestors did, dwelling in small wooden shacks covered with palm leaves, with logs smoldering in the fireplaces and hammocks representing the only furniture. Guna Yala is extraordinary in many ways: it is an autonomous indigenous territory, and its flag sports a black, left-facing swastika, said to represent the four directions and the creation of the world. But perhaps the most curious tradition in Guna Yala is its natural gender equality—and complete tolerance, if not celebration, of gender fluidity.
The Guna Yala archipelago off Panama’s eastern coast is inhabited by the indigenous Guna people.

“*My mother taught me how to make these beautiful molas, our traditional embroidered clothes,*” Lisa said, showing her amazing needlework. “*Some of these represent birds and animals, but some are very powerful – they will protect you from evil spirits,*” she added, smiling softly. For an onlooker, there isn’t anything unusual about Lisa. Much like many other Guna women, she’s sitting in her small dug-out canoe and offering her beautiful handicrafts to tourist boats. Except Lisa was born a boy. In a society where women are the main food distributors, property owners and decision makers, boys may choose to become Omeggid, literally like a woman’, where they act and work like other females in the community. This ‘third gender’ is a completely normal phenomenon on the islands. If a boy begins showing a tendency towards acting ‘female’, the family naturally accepts and allows him to grow up as such. Very often, Omeggid will learn a skill that is typically associated with women; for example, most
Omeggid living on the islands become masters at crafting the most intricate molas.

The ‘third gender’, or Omeggid, is a completely normal phenomenon on the islands - Credit: Nandin Solís García

Diego Madi Dias, an anthropologist and post-doctoral researcher at the University of Sao Paulo, lived among the Guna for more than two years and has seen first-hand that the powerful matriarchal figures in Guna culture are a major influence on the Guna men.

“The Guna have taught me that children should have sufficient autonomy, as their ‘self’ comes from the heart, from within, and starts manifesting early. So, if a male child starts showing a tendency toward being transgender, (s)he is not prevented to be himself,” he said.
Nandín Solís García, a transgender health educator and LGBTQ rights activist in Panama City, originally from the Aggwanusadub and Yandub island communities of Guna Yala, says that growing up as a gay, gender-fluid boy wasn’t difficult on the islands because she always had the support of her family, friends and community. It is mostly males that become transgender women –female transitions to male are extremely rare, but the latter would be equally accepted, she explained. "Historically, there were always transgender people among the Guna," she said. In fact, being Omeggid in Guna Yala stems all the way back to Guna mythology. “There are important creation stories about the original leaders who brought the traditions, rules and guidelines for the Guna people to live by: a man named Ibeorgun, his sister Gigadyriai and his little brother Wigudun –a figure that belonged to what we would call the ‘third gender’,” Dias says, explaining that Wigudun is both female and male.

Diego Madi Dias: “If a male child starts showing a tendency toward being transgender, (s)he is not prevented to be himself” - Credit: Paul Stewart

Walking down the streets on Crab Island, one of the biggest communities in the touristic area of Guna Yala, one notices women everywhere. Dressed in beautifully embroidered traditional clothes, they’re working on their handicrafts, tending small shops and selling food and drinks. Contrary to many other Central American countries, Guna women seem more outgoing and chattier: striking up a conversation
here is much easier than in the streets of Guatemalan or Nicaraguan villages. According to David, guide on Crab Island, women in Guna Yala enjoy an elevated status. A traditional Guna wedding includes a ceremonial abduction of the groom, not the bride, and when a young man is married off, he moves into the bride’s home. From that point on, his work belongs to the woman’s family, and it’s the woman who decides whether her husband can share his fish, coconuts or plantains with his own parents or siblings. Even the partying here, David said, is done to honor women: the three most important celebrations in the Guna Yala islands are a girl’s birth, her puberty and her marriage. The whole community gathers to drink chicha, a strong local beer, to celebrate girlhood and womanhood. During the puberty celebration, a girl’s septum is pierced and adorned with a golden ring. “Gold is treasure, so women wear gold to show how precious and valuable they are,” an elderly Guna woman told me, pointing at her own golden nose ring.

Although men traditionally become fishermen, hunters, farmers or chiefs, women’s work is considered just as, or sometimes, more important. With tourism on the rise, the Gunas are beginning to earn money from sources other than their ancestral trades of collecting coconuts, diving for lobster, fishing and farming. Guna women
can make a substantial income by selling intricately embroidered molas and winis (colorful bracelets made from glass beads). One mola can sell for $30-$50, whereas a man will only make $20 in a whole day spent cleaning the bottom of a visiting sailboat.

“I wouldn’t say Guna is a matriarchy, because while women make all the domestic decisions, they are rarely politicians or chiefs. Yet, the thing about the Guna is that there’s no hierarchy of the value of work. Fishing and hunting is considered work, but so is cooking or looking after children: the Gunas do not consider women’s labour to be ‘lesser work’, like we sometimes still do in the West. But because it’s the young man who moves into the young woman’s home, and because the woman becomes the distributor of food, I think masculinity is sometimes seen as difficult to achieve,” Dias said.

David admits that his marriage had been arranged by his and his wife’s parents, and that he has little say over the property or the sharing of food in his home. “My wife decides... Women always decide,” he said, smiling, before hurrying off to prepare the chicha. Today, his daughter reaches puberty, and the whole of Crab Island will be celebrating.

Men traditionally become fishermen, hunters, farmers or chiefs, but women’s work is considered just as, if not more, important. - Credit: Paul Stewart
But while women have a defined role in the Guna society, the Omeggid sometimes do not. “As more and more Gunas come into contact with Westernization, we sadly begin to adopt the discriminatory practices towards diversity, towards LGBTQ people,” Garcia said. According to Garcia, many Omeggid leave Guna Yala for Panama City, looking for education or career opportunities. And while dreams come true for some, others fare much worse. “We have a big problem with HIV in the community. In Guna Yala, there is no sex education, and people simply don’t know about sexually transmitted diseases. As a result, many men and Omeggid people become infected with HIV in the cities, and then, unknowingly, bring it back to the Guna islands when they return home. Wigudun Galu [a non-governmental organization] is working to prevent HIV infection and offer sex education to the Omeggid community,” she said.

Guna women can make a substantial income by selling intricately embroidered molas -
Credit: Paul Stewart

But despite these issues, the Omeggid who stay in Guna Yala are thriving. Both on the bigger island communities and smaller, family-sized islets, they are omnipresent. Young Omeggid with long hair learn needlework from their mothers, and older Omeggid wearing headscarves sell molas or act as tour guides and translators for
tourists. They are treated as equal members of Guna families and within the community. “I think, instead of only describing how the indigenous peoples are or how they live, anthropology should perhaps help us to examine our own traditions. Throughout ages, across continents and cultures, gender fluidity and the concept of a third gender consistently reappears: the hijras in India; the Meti in Nepal; the Fa’afafine in Samoa; the ‘two-spirit’ people in North America. They are not the exception, we are. Western tradition has constructed a scientific mythology on gender binarism. And it seems, at the end of the day, that gender isn’t so much about biology, hormones and science as it is about the expression of self and a personal, particular way of being in the world,” Dias said.

As Lisa pushes off our sailboat, her little canoe lolling in the shimmering blue sea; Guna Yala seems like a wonderfully alternative world of peace, tolerance and understanding –and that there’s a lot we could learn from this tiny archipelago community in the Caribbean.
Transgender

Transgender people are people who have a gender identity or gender expression that differs from their assigned sex. Transgender people are sometimes called transsexual if they desire medical assistance to transition from one sex to another. Transgender is also an umbrella term: in addition to including people whose gender identity is the opposite of their assigned sex (trans men and trans women), it may include people who are not exclusively masculine or feminine (people who are genderqueer, e.g. bigender, pangender, genderfluid, or agender). Other definitions of transgender also include people who belong to a third gender, or conceptualize transgender people as a third gender. Infrequently, the term transgender is defined very broadly to include crossdressers, regardless of their gender identity.

Being transgender is independent of sexual orientation: transgender people may identify as heterosexual, homosexual, bisexual, asexual, etc., or may consider conventional sexual orientation labels inadequate or inapplicable. The term transgender can also be distinguished from intersex, a term that describes people born with physical sex characteristics "that do not fit typical binary notions of male or female bodies".

The degree to which individuals feel genuine, authentic, and comfortable within their external appearance and accept their genuine identity has been called transgender congruence. Many transgender people experience gender dysphoria, and some seek medical treatments such as hormone replacement therapy, sex reassignment surgery, or psychotherapy. Not all transgender people desire these treatments, and some cannot undergo them for financial or medical reasons. Most transgender people face discrimination at and in accessing work, public accommodations, and healthcare. They are not legally protected from discrimination in many places. More recently the LGBT community has organized to better define itself, promote acceptance, integration and rights vs. a generally –there are a few exceptions- most hostile societal environment.

The concepts of gender identity and transgender identity differ from that of sexual orientation. Sexual orientation describes an individual's enduring physical, romantic, emotional, or spiritual attraction to another person, while gender identity
is one's personal sense of being a man or a woman. Transgender people have more or less the same variety of sexual orientations as cisgender people. In the past, the terms homosexual and heterosexual were incorrectly used to label transgender individuals' sexual orientation based on their birth sex. Professional literature now uses terms such as attracted to men (androphilic), attracted to women (gynephilic), attracted to both (bisexual) or attracted to neither (asexual) to describe a person’s sexual orientation without reference to their gender identity. Therapists are coming to understand the necessity of using terms with respect to their clients' gender identities and preferences. For example, a person who is assigned male at birth, transitions to female, and is attracted to men would be identified as heterosexual.

Despite the distinction between sexual orientation and gender, throughout history the gay, lesbian, and bisexual subculture was often the only place where gender variant people were socially accepted in the gender role they felt they belonged to; especially during the time when legal or medical transitioning was almost impossible. This acceptance has had a complex history. Like the wider world, the gay community in Western societies did not generally distinguish between sex and gender identity until the 1970s, and often perceived gender variant people more as homosexuals who behaved in a gender variant way than as gender variant people in their own right. Today, members of the transgender community often continue to struggle to remain part of the same movement as lesbian, gay and bisexual citizens, and to be included in rights protections. And in fact, the role of the transgender community in the history of LGBT rights is often overlooked, as shown in *Transforming History*.

A common symbol for the transgender community is the **Transgender Pride flag**, which was designed by Monica Helms, and was first shown at a pride parade in Phoenix, AZ, in 2000. The flag consists of five horizontal stripes, two light blue, two pink, with a white stripe in the center.
Helms describes the meaning of the flag as follows: The light blue is the traditional color for baby boys, pink is for girls, and the white in the middle is for "those who are transitioning, those who feel they have a neutral gender or no gender", and those who are intersex. The pattern is such that "no matter which way you fly it, it will always be correct. This symbolizes us trying to find correctness in our own lives."

The Israeli transgender and genderqueer community has designed its own flag; it has a neon green background and centered on it in black to represent transgender people, is a tripled Venus, Mars and Mars-with-stroke symbol.

Other transgender symbols include the butterfly (symbolizing transformation or metamorphosis), and a pink/light blue yin and yang symbol. Several gender symbols have been used to represent transgender people, including ⚬ and ⚭.

In contrast with white, mostly Christian North America, other cultures accept, support and do not ostracize other genders (beside male and female). Looking first at Asia, in Thailand and Laos, the term kathoey is used to refer to male-to-female transgender people and effeminate gay men. Transgender people have also been documented in Iran, Japan, Nepal, Indonesia, Vietnam, South Korea, Singapore, and the greater Chinese region, including Hong Kong, Taiwan, and the People's Republic of China.

The cultures of the Indian subcontinent include a third gender, referred to as hijra in Hindi. In India, the Supreme Court on April 15, 2014, recognized a third gender that is neither male nor female, stating "Recognition of transgenders as a third gender is not a social or medical issue but a human rights issue." On January 5, 2015, Reuters stated that the first transgender mayor was elected in central India.

In what is now the United States and Canada, many Native American and First Nations peoples recognized the existence of more than two genders, such as the Zuñi male-bodied La'mana, the Lakota male-bodied winkte and the Mohave male-bodied alyhaa and female-bodied hwamee. Such people were previously referred to as
berdache but are now referred to as Two-Spirit, and their spouses would not necessarily have been regarded as gender-different. In Mexico, the Zapotec culture includes a third gender in the form of the Muxe.

Mahu is a traditional status in Polynesian cultures. Also, in Fa'asamoa traditions, the Samoan culture allows a specific role for male to female transgender individuals as Fa'afafine.
Love, Tolerance, Acceptance, Respect, Inclusion

In the times of Donald J. Trump/Mike Pence and their Christian Evangelical supporters; of the monopoly of the Orthodox Russian clergy; of the diverse kleptocratic, intolerant African dictatorships that slaughter their own people; of the persecution of love outside the Wahhabite inane rules; and of too many of their mêmes that seem to pop up like mushrooms after the rain, the words that title this final paragraph sound hollow and out-of-reach.

Recently, in San Francisco, the De Young museum had a marvelous –and quite moving- exhilarating exhibition The Summer of Love Experience: Art, Fashion, and Rock & Roll. It celebrated the adventurous and colorful counterculture that blossomed in the years surrounding the legendary San Francisco summer of 1967 when freedom broke all conservative taboos, when all forms of love blossomed, when freedom was the motto night-and-day for weeks, and when everything changed – mostly for the better.

In the mid-1960s, artists, activists, writers, and musicians converged on Haight-Ashbury with hopes of creating a new social paradigm. By 1967, the neighborhood
would attract as many as 100,000 young people from all over the nation. The neighborhood became ground zero for their activities, and nearby Golden Gate Park their playground. The period is marked by groundbreaking developments in art, fashion, music, and politics. Local bands such as Jefferson Airplane and the Grateful Dead were the progenitors of what would become known as the “San Francisco Sound,” music that found its visual counterpart in creative industries that sprang up throughout the region. Rock-poster artists such as Rick Griffin, Alton Kelley, Victor Moscoso, Stanley Mouse, and Wes Wilson generated an exciting array of distinctive works featuring distorted hand-lettering and vibrating colors, while wildly creative light shows, such as those by Bill Ham and Ben Van Meter, served as expressions of the new psychedelic impulse. Distinctive codes of dress also set members of the Bay Area counterculture apart from mainstream America. Local designers began to create fantastic looks using a range of techniques and materials, including leatherwork, hand-painting, knitting and crotchet, embroidery, repurposed denim, and tie-dye. These innovators included Birgitta Bjerke, aka 100% Birgitta; Mickey McGowan, aka the Apple Cobbler; Burray Olson; and Jeanne Rose. And many more.

Today San Francisco remains the end of the road or more often the hospitable haven for the “different”, diverse individuals and groups that do not fit elsewhere. The San Francisco metropolitan area has the highest percentage of the adult population who identify as lesbian, gay, bisexual or transgender (LGBT) of any of the top 50 U.S. metropolitan areas.

Hence there is Hope! But we need more. Much more. Everywhere in the world. Maybe –just maybe- a permanent Summer of Love...
Acknowledgements

For those who have read part 2 of my previous essay *Tracks & Trends*, this one addresses new concepts and developments in line with Henry Miller’s revolution. Serendipity, opportunity, chance brought the novel, updated materials.

I –again- copied, mostly *verbatim*, or edited large excerpts from the chapters, articles or entries listed in the References.

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