Gender as Essence and as Economic Choice

JASON KUZNICKI Editor-in-chief, @TechFreedom Abstract: Present biotechnology does not allow a karyotypic transition from male to female or vice versa. Even a convincing phenotypic transition isn't always possible; "convincing" is generally in the eye of the beholder. Some capacities, such as pregnancy, cannot be supplied at all. These and other limitations have brought some gender critical authors to insist, or to write as if, a gender *essence* exists: masculinity and femininity are each unitary and immutable, all individuals belong to one or the other, and we are obliged to some degree to avoid crossing the lines that these categories establish. Efforts to the contrary may be thought futile, delusional, or worse.

Yet future gender transitions may be far more functional and convincing than our own. This inference follows both from the history of transgender medical care and from the rapid recent progress of biomedical engineering. Informed by these developments, I argue that one's gender presentation is best analyzed as a matter of choice under constraint—and that the constraints are rapidly easing. In the future, people may well transition for reasons much less than the deep questions of self-understanding that are typically said to motivate transition today. "Essence" thus appears to refer to those choices that are not yet available to us. But what happens to our understanding of gender when they are? Gender essences are analogous to an economic equilibrium: If they hold at all, it's only for as long as the technologies that produce them. As technologies change, so do the categories by which we organize our experiences and actions, our consumption and our labor.

THE ARGUMENT FROM IMPERFECTION

One of the most common arguments for restricting access to gender affirming care, and for denying the validity of the transgender experience, begins by asserting that there is no known set of medical procedures that can deliver a fully functional, completely indistinguishable body of the intended gender. Some residue of the gender assigned at birth still

Throughout this paper, I use terms, including *sex* and *gender*, whose meanings are contested. It is often claimed that sex is biological, while gender is cultural, but this paper takes the view that sex itself is becoming a field of cultural production: As technology advances, we can manipulate more and more sexual characteristics in ways that the usual sex/gender binary seems to foreclose, and whenever we do, what had been our sex becomes to that extent a part of our gender. I have therefore chosen to favor the term *gender* in some cases where others would not. I have reserved the term "sex" for intercourse,

remains, and that residue is said to constitute a sufficient reason to consider the entire effort futile or delusional. Pundit Andrew Sullivan (2023) has been one of the more charitable and moderate voices to make arguments of this type. For example:

Protection from discrimination is essential—and is already the law. But that does not mean that biology has ceased to exist; that "trans" is always a stable identity; or that children need no more than affirmation and medical treatment to change sex when they violate gender roles.... To argue this is not hate. It's just sanity.

On this view, biology—"sanity"—must have its say, and biology itself throws into doubt many if not all cases of asserted transgender identity. People who transition will inevitably keep some features and capacities of their birth-assigned gender, notably their karyotype, or chromosome makeup, but also (at least for some) the athletic abilities that they had as a pre-transition male. This asserted imperfection calls the legitimacy of the whole process into question, not just for athletes, but for all.

It is unclear, and it is never explained, how biology comes to have this limiting role more strictly for children, and less so for adults, although that would appear to be Sullivan's view. Adults are of course equally subject to biology, and they should presumably be subject to any normative commands that biology may issue, if biology can do such a thing. Sullivan stops short of this conclusion, and he would tolerate transgender adults in some contexts. Many traditionalists and gender-critical feminists, however, would not. Elsewhere in the same essay, Sullivan worries that gay and lesbian identities may be subsumed in the transgender identity, and that tomboys, for example, will face social pressure either to transition or to abandon their relatively masculine behavior patterns. Even the very objects of male homosexual desire—men—might be abolished, he worries, if gender transition becomes widely accepted within the LGBTQ community, whose very existence he calls into question.

Sullivan's approach is a common one. In it, both retained traits and those that cannot be supplied are used to assert that transgender individuals are behaving inauthentically, irresponsibly, or irrationally, and that this disqualifies them from participation, or at least equal participation, in many or even all gendered social activities, from beauty pageants, to sports, on down to restroom use. Some go still further and conclude that transition should never be attempted at all, and that those who have transitioned are not even entitled to change their pronouns. On Twitter, the hashtag #WeCanAlwaysTell has become a flashpoint pitting those who think they can always tell—and thus assign penalties—against those who quite often demonstrate the opposite: No, you certainly can't always tell. Through all of these varied arguments, there runs a common thread—the claim that because transition is imperfect, it is illegitimate.

The shared premise of this family of arguments is undeniably true: transition technology remains imperfect. Disagreements concern whether various restrictive conclusions should follow: Must the imperfections of gender transition mean that gender transition should never be done at all? Might we instead conclude, not that trans women aren't women, not that they are insane, not that they deny biology—but simply that we should improve our transition technology? Why should we draw a prohibitionist conclusion here—when, in the context of other technological barriers to human designs, we have chosen instead to innovate and overcome? The argument from imperfection doesn't outright invoke the naturalistic fallacy, but it does seem to point in that direction: What is natural should not be changed; it was, and is, and must be, right.

sexual orientation, a few other clearly biological phenomena, and direct quotations from sources that I treat as primary.

CRACKS IN THE ARGUMENT

The imperfections of gender transition are likely to prove historically contingent. They are the products of our current technological frontier, and that frontier is in motion. We would therefore do well to consider the reality of that motion, and we might consider in the abstract some of its possible endpoints. In this section, I will suggest two models that might help, one from science fiction, and one from the history of science.

The Culture

Iain M. Banks's *Culture* novels offer a model of gender transition that's nearly perfect. In the Culture—an anarchic interstellar union of post-scarcity post-humanoids—medicine can give anyone a suite of gendered traits that are fully passable in society and also fully functional biologically. At least in this world, an out-side observer can never distinguish a transitioned person from one who had been assigned the same gender at birth.

People in the Culture enjoy extensive, individual, and conscious control over many aspects of their biology in ways that we can only dream of. The Culture's citizens don't age unless they want to. Their bodies contain "drug glands" that enable a wide variety of standardized, non-addictive, on-demand alterations to consciousness. They can upload their minds to machines, and many of them do, particularly when they know that they will face a physically dangerous situation; a new body can be grown in the event of loss, and the mind can be uploaded to it. Culture citizens are only humanoid when they want to be; many other forms exist. Culture citizens have built autonomous machines that are vastly more intelligent than either humans or our own AIs. These so-called Minds can also take humanoid form; they pilot spaceships and administer the Culture's orbital habitats. The Culture is portrayed as having vanquished most if not all forms of disease, cruelty, and scarcity.²

Every single one of these advances would have major implications for gender theory that can't be fully discussed here. What's crucial for our purposes is that in the Culture, anyone can visit a clinic and undergo a set of procedures that will deliver anatomically and physiologically normal traits and capacities from a gender not assigned to them at birth. These procedures can modify skin, facial features, hair, height, voice, breasts, internal and external genitals, and even chromosomes. No hormone supplements are needed to maintain the transition; one's own cells are retooled to supply the necessary hormones in just the right proportions. In the Culture, post-transition reproduction through sexual intercourse is entirely possible. One's doctors and one's intimate partners need not even know about the transition unless they are told. Detransition is likewise fully convincing and physiologically complete.

In such a world, arguments implicitly premised on the inadequacy of present-day transition technology are moot: To count as a woman, must one have *female chromosomes*? Alice, who was assigned male at birth, has XX chromosomes, which she had installed at a Culture facility last year. To count as a woman, must one be *assigned female at birth*? What do we make of Bob, who was assigned female at birth, but who has fathered three children? Is being a woman defined by *having a uterus*, and being a man by *having a penis*? That's nice. Alice and Bob each qualify for their *intended* genders, and for no other; their genitalia can't be distinguished from those that might have been—but were not—present at birth. If the two of them ever have sex, a pregnancy might result.

I describe the Culture and its capacities to highlight a problem in the theory of gender: As biomedical technology advances, potentially all of our currently impassable barriers, and all of our post-transition

This description of the Culture draws on several books by Iain M. Banks, all set in a common fictional universe. The first is Banks (2009 [1987]); within it, the chapter "Dramatis Personae" provides details about the character Fal 'Ngeestra, who is described, among many other adventures, as having "changed sex several times," borne two children, and lived for nearly a century as a man.

residual traits, could one by one fall away. Today's technologies can't give perfect results, but biology isn't magic, and we're in the midst of learning better and better how to manipulate it. As we do, the markers that seem to denote a gender essence will grow increasingly negotiable, and we will be obliged to negotiate them, both in our self-presentations and in how we think about gender. That process will affect many features of daily life, and it will require adopting new concepts, values, and practices to make sense of a world of choices that are not yet open to us. Not all of our future choices will be as unconstrained as those in the Culture, but some of them might be. As we will see below, gender choice in the real world has already expanded considerably, and it will probably continue to expand. Trade offs will likely become milder, and new capacities will likely be added to the menu of transition's possibilities.

The roadmap of likely future gender technology therefore poses a problem for gender essentialists. To count as *essential*, a gender attribute, or a set of gender attributes, must always and correctly identify the gender of all those who have it: If you have essential attribute(s) X, your gender is Y, and from this inference we can make the accurate prediction Z. A rigorous and principled essentialist would hold that bright lines exist in nature, and that females will *all* have the special thing, or things, that make a person a female; whatever is lacking elsewhere in their presentation should then be supplemented—making someone more of a woman, perhaps, but only through a greater conformity with the essence that has already been established through a natural, biological process and discerned through medical science.³

Essentialists often present the process of gender assignment and formation as if it were ineluctable, and as if technology should not have anything to say about it—yet more and more, it absolutely does. At the extreme, the example of the Culture asks us to consider a world where every purportedly essential trait can be made to come and go at will. Should we ever arrive there, we may be unable to credibly call *any* attribute essential. Apart, that is, from one: the individual's will, which will be able to determine the question of gender in any way that it pleases.

It might not be so wrong, then, to suggest that the settled determination of the individual will is *already* the essential attribute of gender—and that the will, qua essential trait, ineluctably entails the *pursuit*, though not the *possession*, of other gendered traits. Gender might be better understood, in cis and trans people alike, as a continuous project of the will toward fashioning the self. Not a set of formal empirical criteria, and not a destination to be reached, but rather a constellation of settled preferences, each of which can be obtained at various costs and with various drawbacks and externalities. Gender in this view is a preference set that structures individual choice, and individual choice is further constrained by the available technologies with which to satisfy it.

Organic Chemistry

A close analogy exists between gender essentialism and the division in the history of chemistry between the organic and the inorganic. During the eighteenth century, the directed synthesis of organic compounds was unknown, as was quantitative chemistry in general. It was widely supposed that living creatures possessed some essential attribute, some animating force, which separated them from nonliving matter. Sometimes called an *élan vital*, this supposed life force was thought necessary both to produce life itself and to produce any of its then-mysterious chemical products, such as urea and methane.

These and many other compounds were first termed "organic" on the mistaken assumption that only living organisms could produce them. For many, it simply defied belief that living creatures might be *entirely* built from the mere atoms of nonliving matter. In the vitalists' defense, the chemistry of life did have many features that were not well understood, and that seemed at the time to go far beyond the chemistry of nonliving matter. The terms "organic" and "inorganic" were thus coined at a time when they appeared to

Although other definitions of the word *essence* exist in philosophy, this does seem to be the one at hand in debates about gender: "[A]n *essential property of an object* is a property that it must have, while an *accidental property of an object* is one that it happens to have but that it could lack" (Robertson Ishii and Atkins 2020).

denote two modalities forever separated by a natural barrier—much like our common intuitions about male and female.

But then, in 1828, German chemist Friedrich Wöhler first synthesized urea, an organic compound, from inorganic precursors. A deluge of later chemical syntheses eventually established that seemingly all "organic" substances could be made from "inorganic" precursors. Although we still can't make artificial life, artificial organic compounds are so common that nowadays we tend to forget what a scientific and philosophical revolution it was to synthesize them. A seemingly natural barrier proved to be nothing more than conceptual, and the concept on which it rested was shown definitively to be flawed.

Before anyone reached that conclusion, however, attempts were made to save the old paradigm; perhaps some other attribute was the true essence of organic chemistry. Scientists had long ago noticed that organic compounds, so called, almost always seemed to contain carbon—although this was both imprecise and a bit mysterious: Some substances termed "inorganic" had likewise been found to contain carbon, and many compounds that are plentiful in living creatures contain no carbon at all. Diamonds are entirely carbon, but they are never produced by life. Water has no carbon, but all organisms contain it, and without water, there wouldn't be life as we know it. Carbon and the organic don't exactly line up. Nor do carbon and life. Nor do life and the organic.

Where did all of this leave "organic" chemistry? It wasn't abolished, and it certainly wasn't forbidden. On the contrary, the discipline surrendered a merely linguistic consistency, and that surrender freed it to invent many new molecules and processes that are described by a new, complex, fecund, and largely carbon-based chemistry. Today, cutting-edge organic chemistry concerns the manipulation of DNA and proteins, which are much more complex than urea, and which we are now harnessing to cure or prevent many diseases—and perhaps one day to treat gender dysphoria. We even insert new attributes into the DNA of living organisms in high school biology demonstrations. And it may be only a matter of time until the holy grail of fully synthetic life is within our grasp. These developments could only have happened thanks to the abandonment of the essentialist, *élan vital* model in chemistry. No essence ever existed, and that's perfectly fine, actually. We never needed it.

In short, the term "organic" originated in a now-discredited scientific theory. It's still used, but in practice its meaning has become ambiguous. As the current Wikipedia entry on "Organic Compound" notes, "any definition of organic compound that uses simple, broadly-applicable criteria turns out to be unsatisfactory, to varying degrees" (Wikipedia. n.d.). That's just what happens to a term describing an intuitive but untenable concept. It still gets used, but its use is imprecise.

In like manner, there would seem to be no special essence, no *élan masculin*, that separates the male principle from the female, such that an individual will, or should, always remain on one side or the other. Some women possess many masculine traits; some men possess many feminine traits. Some individuals are not clearly men *or* women. And some move from mostly masculine traits to mostly feminine ones, or vice versa, over a period of time. Like the divide between organic and inorganic, an essentialist divide between masculinity and femininity may be a widely shared and intuitive concept, but ultimately it's not one with an empirically rigorous foundation. For both of these conceptual schema, the boundary appears to have more to do with human preconceptions about how the world ought to work than it does with any specific empirical marker.

Organic chemistry remains a specialty field; classes are still taught; papers are still published; progress is still made. Like gender, organic chemistry's boundaries are just less well-defined than some might have believed them to be in the eighteenth century. Organic chemistry has nonetheless contributed prodigiously to human wellbeing in the meantime. "Gender" could easily end up a lot like that—a term formerly applied in the mistaken belief that an essential barrier must exist, but a term now applied also, and unproblematically, to the supposedly forbidden crossings of the exact same barrier.

THE MARCH OF TECHNOLOGY

We're not the Culture, but many supposed bright lines between the genders have already fallen. There is every reason to believe that more are likely to fall.

Consider the uterus. In most eras, an essentialist definition might have declared, "A man is an adult human being who lacks a uterus," and that might have raised few objections (Sutton 1997). Yet the first abdominal hysterectomy on a surviving patient occurred in 1853. Since then, millions of hysterectomies have been performed—not always for reasons of real medical necessity, and not always with consent, as feminists rightly remind us.

For good or ill, though, hysterectomy remains a common medical procedure. More than 400,000 of them are performed in the United States in a typical year (Mostafavi 2018). Orchiectomy, the removal of the testicles, is much rarer, but the procedure is performed not only for gender affirmation, but for testicular cancer and torsion.

Whether or not any particular surgery is medically necessary, biotechnology has in recent years steadily improved its ability to safely produce organic absences. The question then arises of how to think and talk about those who have survived such procedures. "But he's still a man" and "but she's still a woman" have become commonplaces in the face of widespread surgery that removes seemingly essential sexual characteristics. A woman who has undergone a hysterectomy for cancer is of course presumed to be a woman; she remains, rightly, an object of concern for feminism, which keeps her interests in mind. When a cis man has surgery for testicular cancer, *he* still counts as a he, and standard medical practice involves hormone supplementation, and perhaps prostheses, to produce a body that continues to affirm his gendered self-understanding.

In short, organic absences aren't dispositive any longer, at least if you're cisgender. Meanwhile, however, and of great interest to us, when the person in question is transgender, we may meet with the argument that *all* organic absences throw doubt on their transness: The equally missing testicles of a trans man are said to prove that he has *not* transitioned to manhood, and that he is not, in fact, a man. Cis and trans men may both have prosthetic testicles, and both may get their hormones at CVS. Both say equally that they are men, and both wish to be counted as such; both have similar bodies. Like many of the rest of us, both find that their bodies are not entirely as they might wish. Only one, though, bears the stigma of not being a man. This disparity will only become starker as we acquire more skill with manipulating human biology, and as the residuum of biology that we can't correct grows smaller.

Yet patient outcomes among both trans men and cis men undergoing orchiectomy are *much* better when they are given a chance to receive prosthetic testicles, the better to match their own gender self-perception (Cappuccio et al. 2018). Likewise, prosthetic breast augmentation is sometimes available for transgender women—again with strongly positive outcomes (Schoffer et al. 2022). The existence of these technologies satisfies a genuine human need in both cases, and in both, it's a need that can be expressed with a simple, common expression: Recipients want to look like the gendered image that they have of themselves. At one time, that would have been impossible, but now it isn't. A need has been met. Not perfectly, of course, but maybe one day. We're working on it.

Other attributes seem to show similar trajectories. No one today would argue that blood hormone levels are an essential criterion that separates male and female, although one might have made a plausible—yet still not ironclad—case for it less than a century ago. Nowadays hormones are just too easy to manipulate, and manipulating them is a question of individual costs and benefits: Should I get hormone replacement therapy? Are the benefits worth the costs? Those are highly personal and highly individualized questions. They only arise in a society with the technology that can pose them. More such questions are undoubtedly in store for us.

⁴ The patient, however, was misdiagnosed. Hysterectomy has remained controversial owing to grave doubts about its frequent use.

For those inclined to find an essence, something else—not hormones, but something more restrictive—must surely be the essence of the matter at hand. Might it be having a masculine or feminine voice? But we can produce gendered voices with a combination of surgery, hormones, and vocal training (Mayo n.d.). Or realistically feminine breasts? Or a labia and vagina that passes a visual or tactile inspection? Again, each of these might have seemed like an essential characteristic at one point in medical history, but today, none of them is a candidate essence. Each is just another economic choice, with costs and benefits to be weighed by the patient. Such biological markers, which might once have seemed to capture the essence of the gender distinction, just can't do it anymore.

Even apart from medical or surgical interventions, nature supplies more complications than we might have expected. Spontaneous karyotypic abnormalities in the sex chromosomes are now known to be relatively common. They may go undetected for years or whole lifetimes. These abnormalities were unknown as recently as a hundred years ago. Individuals with androgen insensitivity syndrome—another twentieth-century discovery—typically have an XY karyotype. That's sometimes termed an essential attribute for maleness. But the outward, physical presentation of these individuals may be either partially or entirely *female* owing to an insensitivity in the receptors that would otherwise respond to masculinizing hormones. Individuals with AIS still make testosterone, but it's unable to do the job that it typically does (MedlinePlus. n.d.). Individuals who have AIS and whose gross anatomy is female will almost always identify psychologically as female; they are neither usually nor even notably inclined toward gender transition (T'Sjoen et al. 2011). If karyotype, or one's unaided hormone production, was supposed to be the essential, reality didn't get the memo.

The objection to this line of argument usually runs that such cases, which feature nonconforming yet putatively essential gender attributes, are rare. One might reply that hysterectomies are not rare; they are all too common. A stronger reply, though, is simply that, philosophically speaking, an attribute is either essential or it is not; there's no in-between about the matter, and even a single nonconforming case disproves the assertion of an attribute's essentialness.

That's why, rather than identifying some single, essential trait that will always reveal individual gender, contemporary biologists describe sexual differences as occurring in a bimodal distribution: Most people have lots from one of the two clusters of traits, and rather few from the other. Indeed, most people can be put into one of the two major gender categories by examining just one of their traits. Most men and most women are gender conforming in most ways. And the removal of just one or two gendered traits does not produce what anyone, whether sympathetic or not to the transgender experience, would term a full gender transition. We are left to wonder: Exactly how many traits, and which ones, does it take? No one seems to have a cogent answer to this question, and that should be unsurprising. It is largely congruent to the problem of the Ship of Theseus, and it too has no good answer.

When a physical trait can just as well be had through medical intervention as through unimproved nature, an essentialist must either accept that gender's essence is truly and profoundly mutable—that is, that gender *can* be changed—or else he must find a different trait on which to hang his essentialism. Essentialists commonly deny that there can be any such thing as an authentic gender change, but the alternative looks a lot like God-of-the-gaps reasoning. Essence becomes just a fancy name for our vague impressions about the things we don't know how to do yet.⁵ And when any account of a purported essence fails, one simply looks away. There are shiny objects elsewhere; maybe one of them is the essence.

The best that a gender-critical essentialist might hope for given the realities of our complexly sorted, complexly shifting array of gendered traits might nonetheless be to posit that the *essence* of a person's gender inheres in a stochastic view of the whole—a general, overall impression that does not depend on any one trait in particular, but that arises spontaneously from the consideration of a person's overall presentation. Yet this gestalt view, and appearances in general, are so commonly deceiving that we might wonder what good it does to postulate the existence of an essence here at all: It's often the case, but certainly not always,

⁵ For the god of the gaps, see Ratzsch and Koperski 2022.

that RuPaul looks like a woman. And in that capacity, she's certainly fooled some people. But in reality she's genderfluid, and she frequently presents as a man as well. Cases like hers call into doubt the existence of a stochastic essence, and such cases are likely to become more common as gender technology delivers better and better interventions: When an improved product offers better functionality and/or fewer tradeoffs, it's reasonable that the quantity demanded will increase.

We should welcome this development, and not just because it would increase consumer welfare in a highly simplified economic model of gender. It will also give us a measure of individual liberation. When essence is just another name for "I know it when I see it," and when knowing-by-seeing-it is unreliable, *essence* begins to look like nothing more than a grab for biopower in the service of protecting and vindicating an observer's superficial impressions. It becomes nothing more than one individual's rule over another individual's life, mediated by laws that forbid medical intervention. In this mode, essentialism opens the gate to medical coercion while doing very little work of any other kind, and certainly none that would be recognized as scientifically useful. It's a theory that makes few testable predictions, but it underwrites many prohibitions.

In response to stochastic essentialism, a transgender individual may reply that they know very well what their gender essence is; they know it by introspecting, which tells them directly. And what's more, they know that their essence is exactly what it *ought* to be. They're working on fixing the inessentials, thanks very much. We might call this the "Born this Way" theory of gender. As Lady Gaga put it, "I'm beautiful in my way 'cause God makes no mistakes / I'm on the right track, baby, I was born this way." The second assertion in the lyric—*I'm on the right track*—suggests that an introspective essence is the start, and not the end, of a journey. Many other human endeavors, and perhaps all of them, begin by introspecting and end by confronting the real world with a plan for improvement.

This is an interesting but difficult move; by definition, it affirms some individual trans experiences, but when it does so, it surrenders the definitionally necessary correlation between the essential attribute and a person's gender as a whole: It is characteristic of the transgender experience to find that one's deeply considered and constant self-image does *not* match one's other gendered attributes. Even here, essentialism seems fatally flawed in that it does not make reliable, value-neutral predictions about the state of the world. It prescribes, but it does not predict.

New avenues of gender expression have opened up in the past, and they will continue to do so in the future. The field of genetic engineering is still in its infancy, but its possible contributions to gender transition technology are obvious. By editing the genome, it may eventually become possible to alter the hormone production of a human body so that it's a good match with a gender not assigned at birth. This fit would not require any future hormonal supplements or other drugs—an obvious improvement in how this aspect of gender-affirming medical care is supplied. Advances in gene editing might even eventually swap an XX for an XY karyotype, or vice versa.

When that development finally happens, some people may be troubled about the collapse of gender's essence, which they had situated in the chromosomes. Really, though, we ought to know better, both from the already extant empirical evidence, and from the sheer fact that it will have been human choice, and human ingenuity, that has brought us to mastery over this aspect of nature.

Gender's essence would seem to be founded on heaps of sand. That's why, for example, one question posed by Senator Marsha Blackburn to future Supreme Court Justice Ketanji Brown Jackson—"Do you know what a woman is?"—caused such an uproar (Bump 2022). In ordinary life, this question never needs much of an answer; almost all of us find gender categories intuitive, and there is much biological reason to expect that evolution has predisposed us to find them that way, rightly or (sometimes) wrongly. Evolution more often reproduces all those traits that favor reproduction, and the ability to sort individuals as to their mating potential is clearly a trait that would help. We likely bear such sorting mechanisms within us, which would often, although not always, steer us accurately toward reproducing. We know what a woman is because we are well disposed to believe in women as a category; such belief helped to produce us. An ordinary

life, and even a full and accomplished one like Justice Jackson's, seldom requires more than that, even if that understanding doesn't always hold up to a rigorous philosophical or scientific examination.

The future Justice Jackson was undoubtedly aware of some of the complications hereabouts, which she wisely chose to sidestep. When we see gender, we are intuitively, insistently, and even eagerly aware of a phenomenon that, on reflection, seems to inhere more in our own psychological impression of it than it inheres in any one of the traits that we observe. Gender's truest essence may just reside in the eye of the beholder—and evolution may just have put it there—but that's not easily reduced to a sound bite at a congressional hearing.

I welcome more attention to this state of affairs. As a gay man, I have always been gender nonconforming in one fairly significant area of my life: My ability to form romantic relationships seems so far to be exclusively oriented toward men, exactly as one might expect of a gender-conforming woman. But I'm not obviously feminine in any other ways. I am cisgender, and I commonly pass for straight.

Yet gender nonconformity, even in one attribute, can still be dangerous. Historically, and even in some present-day societies like Iran, a homosexual orientation has been strongly assimilated to being transgender both in law and in social practice. It has been reported that the Iranian government coercively reassigns genders based purely on sexual orientation. In this, the Iranian authorities, from the Ayatollah Ruhollah Khomeini to the fathers of individual families, would appear to be using sexual orientation as the sole practical criterion of gender identity; they are then marshaling biopower, in the form of coercive social sanction, surveillance, and surgery, to make a person's other traits conform (Eshaghian 2008). Andrew Sullivan has often expressed concern that if the transgender identity becomes widely accepted in the West, a similarly coercive regime may be adopted here. Transgender activists generally dismiss these concerns, of course, but neither they nor he will necessarily be around to write the rules for the future.

Many of us, and not just gay men, are less than perfectly gender conforming in some area of our lives. It seems remarkable and indefensible to me that the response to such a phenomenon should be repressive social policing, whether in Iran or the United States. I see no evidence that transgender activists desire coercive medical intervention for me or for others of this type. Thinking in this way seems to stem from a rationalistic insistence on an essentialist gender theory. Fortunately, there are alternatives.

CHOICE AND CONSTRAINT

Might there be a better analytical paradigm with which to discuss the phenomena of gender? Essentialism is a metaphysical dead end; without a reliable empirical referent, it can only reify gut feelings—and then moralize, after the fact and coercively, about their naturalness. As Laboria Cuboniks⁶ (n.d.) puts it in *Xenofeminism: A Politics for Alienation*:

Anyone who's been deemed "unnatural" in the face of reigning biological norms, anyone who's experienced injustices wrought in the name of natural order, will realize that the glorification of "nature" has nothing to offer us—the queer and trans among us, the differently-abled, as well as those who have suffered discrimination due to pregnancy or duties connected to child-rearing. [Xenofeminism] is vehemently anti-naturalist. Essentialist naturalism reeks of theology—the sooner it is exorcised, the better.

The manifesto also calls for an "explicit, organized effort to repurpose technologies for progressive gender political ends"; this effort would be "an arduous assertion of freedom against an order that seemed immutable."

I might add: We've done this before. We travel through outer space. We fly. We take vaccines. We cross the oceans. We read and write. We use fire. Absolutely none of that is natural. All of it is "an arduous as-

All citations to this work are from Cuboniks n.d.

sertion of freedom against an order that seemed immutable." It's in humanity's nature, if we may use that word, to defy all those things that we once took for natural. Are there costs to be paid? Of course. Are the costs always prohibitive? Should they be? No. And no.

An anti-naturalist stance toward gender therefore isn't so hard to imagine. We need only insist that technologically supplied gendered traits are *real* gendered traits. Traits that come to us as the products of free and conscious human choice are not delusions, nor are they the products of delusion; my immunity to COVID-19 may have come from injections, but it's still real. A femininity that comes from a similar source must also be considered real. Both are the products of *desire*—but in this, they stand identically to the products of capitalist production in general, which seeks to satisfy consumer desire. Like other consumer products, gender technologies may have strengths and weaknesses, costs and benefits. Our desires are real, and so are the things we do about them, and so is what we pay for them. It is only in the area of gender, and perhaps a few others, that we insist that traits that came to us through artifice don't count as *traits*. Let's iron out that ontological wrinkle, which clearly shouldn't exist.

The Manifesto continues: "Like every myth of the given, a stable foundation is fabulated for a real world of chaos, violence, and doubt." That is, the world of gender: Essence may be false, but some do find it reassuring. Others find it much less so, and of course they will seek an escape. "When the possibility of transition became real and known, the tomb under Nature's shrine cracked, and new histories—bristling with futures—escaped the old order of 'sex.' [...] The time has now come to tear down this shrine entirely, and not bow down before it in a piteous apology for what little autonomy has been won." Encouraging and developing new ways to be sexual or gendered won't erase the reality of sex or gender, not any more than encouraging sculpture will erase beauty. Successful sculpture is an *instance* of beauty. The artificial isn't the unreal; it's another flavor of the real.

Without recourse to the concept of essence, we face a landscape of changing possibilities, and we will inevitably have preferences among them. We also—perhaps also inevitably—come to terms with those possibilities by assigning a gender valence to some of them, even in the knowing absence of essence: If I get breast implants, or even a lab-grown uterus, it won't be the one thing that finally, finally makes me a Woman. But it will be a *feminizing* step. It could be just one step of many, or it could be an isolated choice. I may find the costs or benefits prohibitive, or not. When we abandon essence, it's unclear what role social stigma should play, if any at all, in negotiating our choices. Rather, an agent should look at the incentives that are posed by the physiological outcomes of the intervention: the matrix of costs and benefits, of capacities lost and gained, will help them decide according to their own values whether a given choice makes sense.

Desire, choice, constraint, incentive, action: These are none other than the foundations of *economic reasoning*. As with the psychology of the consumer in Austrian or classical economics, we need not delve deeply into the gender psychology of any individual to understand a great deal about the phenomena of choice among gendered traits. Rather, we can and should treat individual psychology as something of a black box: The question for us is not whether a person's soul is really and truly masculine, or whether it was properly deemed masculine from birth, or whether it finally became masculine following a given medical procedure. We should say instead, and only, that the perceived benefit (for example) of facial masculinization, given our present technological limitations, was found sufficient for this individual at this time, such that facial masculinization became a part of his (or her) choice set—and we can say very little beyond that without presuming too much. We should resist the temptation to write gender essences onto people. Essences too easily become an excuse for coercion, particularly when they are assigned by an external agent, but perhaps in all cases.

As we have already seen, gendered and gender-affirming medical interventions can be of great value to cisgender individuals too. We can sometimes observe gendered choice sets that are quite thorough and complete rejections of the given, at least by the standards of our present level of technology. We also observe some gendered choice sets that reject only a few aspects of the given, again within that same technological frontier. Some individuals transition in every way that they can, and some transition in only a few. We

should not conclude that a person's choices are invalid, incomplete, deluded, or otherwise wrong, merely because they are different. Each individual's preference set will indeed be different. To reject some while favoring others is both at odds with the supposed value neutrality of good social science and also probably philosophically incoherent.

Indeed, we should banish the very idea of gender from our analysis whenever we find that it has become an essence imbued with the power to issue socially binding commands. Cuboniks (n.d.) writes:

"Gender abolitionism" is not code for the eradication of what are currently considered "gendered" traits from the human population. Under patriarchy, such a project could only spell disaster—the notion of what is "gendered" sticks disproportionately to the feminine. But even if this balance were redressed, we have no interest in seeing the sexuate diversity of the world reduced. Let a hundred sexes bloom! "Gender abolitionism" is shorthand for the ambition to construct a society where traits currently assembled under the rubric of gender, no longer furnish a grid for the asymmetric operation of power.

We opened this essay with a quote from Andrew Sullivan, who in the same post worried that "What the trans movement is now doing... is not about rights at all. It is about cultural revolution. It's a much broader movement to dismantle the sex binary, to see biology as a function of power and not science, and thereby to deconstruct the family and even a fixed category such as homosexuality."

Yet Cuboniks seems to deny such a danger even as she embraces "gender abolitionism." To her, feminine *traits* are welcome and unproblematic. They might even be erotic. To *abolish gender* does not mean to abolish men or women. It means to abolish a socially binding set of commands, an imposed order wielded by those in power, with obedience incumbent on ordinary people, and enforced by violence. Abolishing a system like that means that gender will become a more *spontaneous* order. It does not mean to abolish the individual's choice of attributes in favor of a genderless future.

One rejoinder to Sullivan's claim now becomes somewhat clearer: homosexuality doesn't rest on a gendered essence either. Exactly like heterosexuality, it rests on a combination of two preconditions. First, there is the seemingly spontaneous tendency of a large number of people to coordinate on a more-or-less shared idea of masculine (or feminine) gender presentations. We call these people men and women, and the tendency to sort into (at least) these two categories appears to be a human universal. Second, there is the seemingly spontaneous tendency of some within a given gender presentation group to experience sexual attraction to those of the same group. That, too, would appear to be a social universal, the objections of traditional moralists notwithstanding. Social universals are rare, but they seldom disappear. Homosexuality therefore seems unlikely to go away.

In short, it's not about being attracted to an essence. It's about being attracted to something akin to a style. Masculinity might be an enduring, ages-long, nearly universal style—but some styles are like that. It may be a style with some key elements that can't be supplied to everyone—but again, some styles are like that, too. As sex becomes increasingly cultural, and increasingly subject to technological manipulation, the masculine style will be increasingly open to all. And the feminine. And others as well; let a hundred sexes bloom. But there remains little prospect that masculinity or femininity will ever disappear. So many of us just want them so much.

Though we tend to forget it, we already exist in a world of vastly expanded gender possibilities; the realms of work, fashion, politics, education, the arts, sport, and even the military are gender-egalitarian and gender-open in ways never before seen in human history. We increasingly author ourselves, and while we may consult gender in doing so, we do not allow gender to author us. Will there be room in Cuboniks's world for homosexuality? Of course. Just find two more-or-less men, or two more-or-less women, each with

⁷ For an exploration of this idea, see Kuznicki 2017.

a tendency to attraction toward someone with a similar bundle of gendered traits. Put them together, and an attraction might well develop.

Indeed, there are many possible frontiers along which a larger role may exist for choice in the distant future. I will close with a few of them to illustrate how sex and gender may become more and more a venue for individual choice under constraint.

If I were born or adopted into the Culture, my own life would be a curious case indeed. I'm cisgender and exclusively same-sex attracted, and I've been in a decades-long partnership and marriage with another man. We've adopted a child together, but the Culture's technology would have given us another choice: If I could have transitioned and borne my partner's child biologically, I would probably already have done so. And after that, he would have done the same for me.

Why, in the real world, did I refrain from transitioning? The answer is simple: Subjectively, I found that the benefits were too low, and the costs were too high. Pregnancy, the one thing I'd most want from a transition, isn't currently available, and the process of detransition would not fully restore my naturally occurring male characteristics, which I remain fond of.

Remove both of those limitations, and I would transition... for a time. Would I *be* transgender? Not if it means having a transgender essence. And not if we judge by the subjective experience of the self, either; when I think of "me," I would probably still think of a male human being. I would only be visiting womanhood. Real though my visit might be, womanhood would not be my permanent home. It would be a place that I wanted to visit for a specific purpose. I might not even feel comfortable with feminine pronouns.

Bearing a child is a momentous decision. But with a similarly perfected transition technology, another cisgender man might choose to transition for reasons that we today would think were utterly frivolous, even irresponsible. For example, what would we make of an actor who chose to medically transition—just so that he could play Lady Macbeth? Nowadays, an actor would probably find the costs of that move prohibitive, unless she were already trans; such costs would dwarf any possible benefit to the actor's career. But when the costs, in the form of lost biological capacities, decline substantially or disappear—well, why not?

As the costs of gender transition decline, the reasons for gender transition will multiply. As indeed they should; that's just how economic choice works. When the price of a good or service goes down, the quantity demanded goes up; new buyers may enter the market, and new uses are found for the now less-costly production goods. In this case, the production good would be nothing other than the actor's gendered body, which would be used to perform a role.

Our choices are ultimately guided by the costs that we must pay for them, including changing costs to reputation, self-image, and biological functioning. We should therefore expect that the choices that individuals will make with regard to gender presentation will change as biotechnology advances. Many of us may only remain at our current gender frontier because we lack the ability to strike better bargains, at least as we would subjectively reckon them. At the end of the day, what remains are not gendered bodies whose accidental attributes must be harmonized with a sought-for but elusive essence. Rather, what we have are gendered *attributes*—and our individual choices govern which ones we'd prefer to have at various price points. In this, gender resembles an economic equilibrium, which may be equally disturbed by technological innovation.

Most people, when presented with new gendered choices at lower and lower price points, will likely stick with roughly the constellation of attributes to which they were assigned at birth. There are good reasons for believing as much, but there is no reason to think that when they do so, they are instantiating the essence of gender. They are keeping to a familiar set of choices, no more and no less. Maybe in the future, nearly all women will choose the masculine attribute of being somewhat physically stronger; maybe nearly all men will choose the feminine attribute of never having to shave their faces. But we seem to be in very little danger of losing the ideas of male and female, which evolution has probably been suggesting to us all along. Sexual attraction itself tends to bring them back to mind, and back to cultural predominance, and there is little reason to think that it will fail.

Every subject plays his part as such specifically through exploits or projects that serve as a mode of transcendence; he achieves liberty only through a continual reaching out toward other liberties. There is no justification for present existence other than its expansion into an indefinitely open future.

— Simone de Beauvoir

REFERENCES

Banks, Iain M. 2009 [1987]. Consider Phlebas. London: Orbit Publishing.

Bump, Philip. 2022. The Remarkable Bad Faith Involved in the 'What Is a Woman' Attack. *The Washington Post*, March 23. https://www.washingtonpost.com/politics/2022/03/23/remarkable-bad-faith-involved-what-is-woman-attack/.

Cappuccio, F., S. Rossetti, C. Cavaliere, G. Iovane, R. Taibi, C. D'Aniello, C. Imbimbo, S. Facchini, V. Abate, D. Barberio, G. Facchini. 2018. Health-related quality of life and psychosocial implications in testicular cancer survivors. A literature review. Eur Rev Med Pharmacol Sci 22(3): 645-661. DOI: 10.26355/eurrev_201802_14290.

Cuboniks, Laboria. n.d. Xenofeminism: A Politics for Alienation. https://laboriacuboniks.net/manifesto/xenofeminism-a-politics-for-alienation/.

Eshaghian, Tanaz. 2008. Be Like Others (documentary film).

Kuznicki, Jason. 2017. Gender as Art. Liberal Currents, June 6. https://www.liberalcurrents.com/gender-as-art/

Mayo Clinic Staff. n.d. Transgender Voice Therapy and Surgery. https://www.mayoclinic.org/tests-procedures/transgender-voice-therapy-and-surgery/about/pac-2047054.

MedlinePlus. n.d. National Library of Medicine (US); [updated Jun 24; cited 2020 Jul 1]. Available from: https://medlineplus.gov/ency/article/001180.htm

Mostafavi, Beata. 2018. Plotting the Downward Trend in Traditional Hysterectomy. University of Michigan Health Lab Blog, January 23. https://labblog.uofmhealth.org/rounds/plotting-downward-trend-traditional-hysterectomy.

Ratzsch, Del and Jeffrey Koperski. 2022. Teleological Arguments for God's Existence. *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta (ed.). https://plato.stanford.edu/archives/spr2022/entries/teleological-arguments/.

Robertson Ishii, Teresa and Philip Atkins. 2020. Essential vs. Accidental Properties. *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta (ed.), https://plato.stanford.edu/archives/win2020/entries/essential-accidental/.

Schoffer A. K, Bittner A. K, Hess J., Kimmig R., Hoffmann O. 2022. Complications and satisfaction in transwomen receiving breast augmentation: short- and long-term outcomes. *Arch Gynecol Obstet* Jun;305(6): 1517-1524. doi: 10.1007/s00404-022-06603-3. PMID: 35597817; PMCID: PMC9166844.

Sullivan, Andrew. 2022. The Trans Movement Is Not About Rights Anymore. January 14.

Sutton C. 1997. Hysterectomy: a historical perspective. Baillieres Clin Obstet Gynaecol. Mar;11(1):1-22. doi: 10.1016/s0950-3552(97)80047-8. PMID: 9155933.

T'Sjoen G., De Cuypere G., Monstrey S., Hoebeke P., Freedman F. K., Appari M., Holterhus P. M., Van Borsel J., Cools M. 2011. Male gender identity in complete androgen insensitivity syndrome. *Arch Sex Behav.* Jun;40(3): 635-8. doi: 10.1007/s10508-010-9624-1; PMID: 20358272.

Visootsak J., Graham J. M. Jr. Klinefelter. 2006. Syndrome and other sex chromosomal aneuploidies. *Orphanet J Rare Dis*. Oct 24;1: 42. doi: 10.1186/1750-1172-1-42. PMID: 17062147; PMCID: PMC1634840.

Wikipedia. n.d. Organic compound. https://en.wikipedia.org/w/index.php?title=Organic_compound&oldid=1114497022 (accessed October 25, 2022).