



“And the Male Is Not like the Female”: Sunni Islam and Gender Nonconformity (Part II)

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I. Overview

While part 1 of this study¹ surveyed the Islamic tradition and established Sunni Islam's normative position on gender nonconformity, we now transition to an examination of gender identities in contemporary society. The modern world has given rise to myriad alternative gender identities that are viewed as disadvantaged relative to what are seen as the privileges enjoyed by "cisgender" individuals—a term denoting those whose biological sex agrees with their psychologically internalized gender. Though various lists exist online enumerating these many alternative gender categories and sexual identities, the rapid expansion of sexuality as an independent set of conceptual constructs makes it difficult to keep pace. In discussing this expansion, David Frank and Nolan Phillips write:

The expansion of sexuality in society is self-reinforcing. The legitimization of each new identity engenders others. Thus, the old gay center on campus morphs into the lesbian and gay center, and then the LGB center, and then the LGBT center, and then the LGBTQ center, and at some point the LGBTQI center, and now even the LGBTQQIAAP center (lesbian, gay, bisexual, transgendered, queer, questioning, intersex, asexual, allies, and pansexual).²

These expanded initialisms congregate two categories: sexual orientation (gay, lesbian, bisexual, etc.) and gender identities (transgender, non-binary, etc.). This conglomeration is, among other things, strategic.³ Alternative genders and sexualities are regarded as marginalized and sitting outside the prevailing male–female binary. Both alternative gender identities and alternative sexual orientations are subject to moral opprobrium by traditional religion, an institution—or, rather, a set of institutions—viewed as a significant obstacle, if not the greatest obstacle, to achieving complete social, cultural, and political equality. Advocates for both are also equally interested in advancing the rights of those sitting in the interstitial crevices occupied by minority communities. In so doing, LGBT+ advocates seek to undo

¹ See Mobeen Vaid, "'And the Male Is Not like the Female': Sunni Islam and Gender Nonconformity, Part I," MuslimMatters, July 24, 2017, <https://muslimmatters.org/2017/07/24/and-the-male-is-not-like-the-female-sunni-islam-and-gender-nonconformity/>.

² David John Frank and Nolan Edward Phillips, "Sex Laws and Sexuality Rights in Comparative and Global Perspectives," *Annual Review of Law and Social Science* 9, no. 1 (2013), <https://doi.org/10.1146/annurev-lawsocsci-102612-134007>.

³ It should be noted that self-identified homosexuals (gay and lesbian) are now raising objections to the conflation of sexual orientation and gender identity. Two sites with steady contributions from self-identified homosexuals include [Gender Apostates](https://genderapostates.com/) (<https://genderapostates.com/>) and [4thWaveNow](https://4thwavenow.com/) (<https://4thwavenow.com/>). In addition, a newly formed "LGB Alliance," based in the UK, is devoted to countering trans efforts to render gender entirely fluid and distinct from sex.

what they identify as entrenched paradigms of prejudice that remain as vestiges of a supposedly bygone era of reified, "medieval" religion and its concomitant canons that continue to infringe on the social and political freedoms of the modern individual. This includes, but is not limited to, the use of gendered language, the "traditional" notion of marriage, and social norms that stigmatize the sex-related choices of private citizens. All this, and more, is seen as needing to be dismantled.

This study begins by providing a detailed account of this phenomenon, then moves to examine gender from a conceptual angle while indulging several debates that have emerged in the past decade related to gender nonconformity. Following this, we shift our attention to transgenderism as a modern phenomenon, beginning with a brief history and then examining the many issues that intersect it, including, but not limited to, debates in the fields of psychology, transgender youth and the medicalizing of adolescents who experience gender dysphoria, and transgender advocacy as a distinct political and cultural program. Finally, we conclude with a section reviewing legal rulings (*fatāwā*, sing. *fatwā*) by Muslim scholars on gender nonconformity and sex change operations.

II. Gender and Gender Identities

A. Gender: A Social Construct?

A common feature of contemporary discourse is its consistent appeal to gender and gender debates. Muslims and non-Muslims alike are immersed in questions of equitable pay, perceived (and real) gender inequality, and what constitutes a gender "role" (assuming there is such a thing). Despite this sustained and often raging debate, the central conception of what in fact comprises gender is rarely subject to scrutiny and careful delineation. Implicit in a great many gender debates is the presumption of an analogy between gender and biological sex, that is, the presumption that gender reflects a person's psychological makeup in the same straightforward way that sex reflects one's biological composition. When filling out a form, one is typically prompted to choose from a binary of male or female (and increasingly "other" or given the preference not to say) when identifying one's sex. When watching sports, one tunes into men's athletics and women's athletics, and when the urge to relieve oneself arises, one is routed to either a men's or a women's restroom. In these ways and more, the natural teleology of men and women as distinct genders distinguished by their biological makeup is reinforced.

Modern gender theorists call this conception of gender into doubt, arguing instead that gender is something cultural that one becomes "through a complex process of socialization."⁴ This conception is buttressed by anthropological evidence

⁴ See Susan Stryker, *Transgender History* (Berkeley: Seal Press, 2008), 11.

shedding light on various cultures and societies that have formally recognized three or more genders,⁵ alongside the myriad differences inherent in societies that maintain a strict gender binary. These differences become ossified in societies via social norms, which are communicated through methods of socialization that include media portrayal, schooling conventions, and the perpetuation of male vs. female expectations from parents towards their children at a young age (sartorial selections for children, how parents speak to their children, naming customs, etc.). Critically, because each society manifests gender in a way that is largely unique to it (variant dress, social roles, etc.), it is argued that “the sex of the body does not bear any *necessary* or *deterministic* relationship to the social category in which that body lives.”⁶ In other words, gender denotes social expectation alone and *not* biology.⁷

B. Gender: Biologically Determined

Militating against this view are critics who foreground biological constitution as a substantive determiner of gender identity. This approach maintains that “biological characteristics of the sexes are the basis of gender differences—the X and Y chromosomes and hormonal activities influence a range of individual qualities from body features to thinking to motor skills.”⁸ Proponents of the biological model do not reduce gender to material or biological composition alone, acknowledging fully the range of environmental and social factors that can and often do contribute to the canonization of gender roles and conceptualizations. However, what advocates of biological influence argue is that gender categories, no matter how deeply informed by social factors, invariably intersect traditional male–female gender identities, themselves determined almost universally on the basis of anatomical sex distinction.

A nearly universal historical enshrinement of gender dichotomized into male and female is difficult to chalk up to purely external factors like varying and contingent social conventions. Even societies that have recognized three (or more) genders have done so in a way that necessarily circumscribes alternative gender conceptions within an abiding male–female dichotomy (the alternative genders representing strict anomalies and not statistical distributions of gender identification across such societies). These alternative genders most often manifest themselves in the form of

⁵ See, for example, discussions related to the Navajo *nádleehí* in Carolyn Epple, “Coming to Terms with Navajo Nádleehí: A Critique of Berdache, ‘Gay,’ ‘Alternate Gender,’ and ‘Two-Spirit,’” *American Ethnologist* 25, no. 2 (2008), <https://doi.org/10.1525/ae.1998.25.2.267>.

⁶ See Stryker, *Transgender History*, 11 (emphasis original).

⁷ See Maria Power, “The Social Construction of Gender,” *Applied Social Psychology* (student blog), October 3, 2011, http://www.personal.psu.edu/bfr3/blogs/applied_social_psychology/2011/10/the-social-construction-of-gender.html.

⁸ See Julia T. Wood and Natalie Fixmer-Oraiz, *Gendered Lives: Communication, Gender & Culture* (Boston: Cengage Learning, 2015), 36.

effeminate males, masculine females, or some combination thereof. In other words, the assimilation of added gender identities has, as a matter of self-definition, taken as its principal reference point the existing, normative binary of male and female.

Interestingly, devoted religionists have not been alone in asserting gender inherentism against constructivist efforts; even some prominent feminists have challenged the idea that an individual can truly transition from one gender to the other. Disparagingly referred to by some as “trans-exclusionary radical feminists” (TERFs),⁹ feminist scholars Germaine Greer, Janice Raymond, and others have disputed notions of gender transition. Raymond’s 1979 work *The Transsexual Empire: The Making of the She-Male* faults a society that has produced men who enthusiastically “objectify women in rape, pornography, and ‘drag’” for also having given life to men who, underwritten by the same enabling socialization, objectify themselves through “male-to-constructed-female” transitions.¹⁰ In so doing, transsexualism comes to comprise “the ultimate, and we might even say the logical, conclusion of male possession of women in a patriarchal society. Literally, men here possess women.”¹¹

Like Raymond, Greer, too, has situated discourses surrounding gender fluidity within the paradigm of patriarchy, viewing transgenderism¹² as an appropriation of female constitutionality by reducing the definition of what it means to be a woman from one of a sex (akin to man) to a non-sex.¹³ Accordingly, for Greer, surgical procedures to remove male genitalia comprise a type of mutilation and, ultimately, fail to achieve their intended purposes, as the removal of male genitalia does not alter the “chromosomal fact any more than the removal of the tails of puppies [...] produces a tailless breed.”¹⁴ In support of her argument, Greer marshals alarming statistics concerning post-transition life for transsexuals, including high rates of prostitution, HIV, hepatitis B and C, active syphilis, and demand for subsequent

⁹ See Penny White, “Why I No Longer Hate ‘TERFs,’” *Feminist Current*, November 10, 2015, <http://www.feministcurrent.com/2015/11/10/why-i-no-longer-hate-terfs/>.

¹⁰ See Janice G. Raymond, *The Transsexual Empire: The Making of the She-Male* (New York: Teachers College Press, 1994), 29.

¹¹ Ibid.

¹² It should be noted that although many use the terms transgender and transsexual in ways that are virtually synonymous, *transsexualism* conventionally denotes those who have pursued medical assistance for the purpose of gender transitioning, whereas *transgenderism* describes the underlying psycho-social reality of those whose “gender identity and/or gender expression differs from what is typically associated with the sex they were assigned at birth.” For more detail, see “GLAAD Media Reference Guide – Transgender,” GLAAD, April 19, 2017, <https://www.glaad.org/reference/transgender>, as well as Susan Scutti, “What Is the Difference between Transsexual and Transgender? Facebook’s New Version of ‘It’s Complicated,’” Medical Daily, March 18, 2014, <https://www.medicaldaily.com/what-difference-between-transsexual-and-transgender-facebooks-new-version-its-complicated-271389>.

¹³ Germaine Greer, *The Whole Woman* (London: Transworld Publishers, 1999), 81.

¹⁴ Ibid.

corrective surgeries to address necrotizing tissue, graft failures, and narrowed or closed vaginal passages.¹⁵ In a 2015 BBC interview, when prompted about her stance on transgenderism, Greer retorted that transgender women do not “look like, sound like, or behave like women.”¹⁶

Renowned academic Camille Paglia, a self-described “dissident feminist,” has also been critical of gender fluidity. In a 2014 op-ed published in *Time* magazine, Paglia writes, “The gender ideology dominating academe denies that sex differences are rooted in biology and sees them instead as malleable fictions that can be revised at will.”¹⁷ More recently, Paglia has remained candid in her support for a biologically influenced conception of gender, stating in a June 2017 interview:

It is certainly ironic how liberals who posture as defenders of science when it comes to global warming (a sentimental myth unsupported by evidence) flee all reference to biology when it comes to gender. Biology has been programmatically excluded from women’s studies and gender studies programs for almost 50 years now. Thus very few current gender studies professors and theorists, here and abroad, are intellectually or scientifically prepared to teach their subjects.

The cold biological truth is that sex changes are impossible. Every single cell of the human body remains coded with one’s birth gender for life. Intersex ambiguities can occur, but they are developmental anomalies that represent a tiny proportion of all human births.¹⁸

These feminist voices are not alone in their disapproval of gender constructionism. York University neurologist Debra Soh penned an op-ed in the *LA Times* in 2017 asking whether gender feminists and transgender activists were “undermining science” in insisting that gender was merely something into which one was socialized.¹⁹ In her piece, Soh argues that in pursuing a particular political agenda, gender theorists have jettisoned scientifically sound and repeatedly substantiated research that affirms anatomical and physiological differences between men and women. These

distinctions include brain structure and function (such as verbal fluency, visuospatial processing, etc.), a field in which Soh is an expert. In addition to Soh’s contentions, medical research abounds that examines sex-specific characteristics and features, with recent studies examining how “genetic sex can lead to differences between the sexes in the etiology and the progression of disease.”²⁰

Arguments rooted in inherent and biological composition occasionally extend beyond human beings by pointing to animal life and observed gender roles therein. Andrew Sullivan, former columnist for *New York Magazine* who currently writes as an independent [blogger](#), recently offered commentary reflecting this very point, namely, that the male–female distinction, though loathed by modern gender theorists and feminists, is the *de facto* norm in nature. Sullivan writes that although progressives protest against the notion that gender corresponds to biological sex, they are “not currently campaigning to shut down the Planet Earth series because it reveals that in almost every species, males and females behave differently—very differently—and there appears to be no ‘patriarchy’ in place to bring this about at all.” Sullivan goes on to say that “it is strikingly obvious that for today’s progressives, humans are the sole species on this planet where gender differentiation has no clear basis in nature, science, evolution, or biology. This is where they are as hostile to Darwin as any creationist.”²¹

There have been efforts of late to problematize what is seen as an exclusion of transgenderism from the realm of biological substantiation. Some have claimed the existence of variation in gendered behavior among animal life, including some species that exhibit gender disguise. A recent article by Juliet Lamb provocatively entitled “Are There ‘Transgender’ Proclivities in Animals?” was one such effort, though it concedes in its conclusion the rather tendentious nature of the analogy between the “gender-disguising ruses of non-human animals and human gender identity.”²² More serious efforts have emerged that have put forward brain structure as the crucial biological factor causing an internal and dispositional gender dysphoria. We examine these arguments in the following section.

Brain structure research and transgenderism

Much like in the case of homosexuality, recent efforts have been made to implicate biological factors as the cause of transgenderism. Unlike homosexuality, however,

¹⁵ Ibid., 82–84.

¹⁶ Kai Schweizer, “A Criticism of Trans-Exclusionary Radical Feminism,” Curtin Writers Club, March 18, 2017, <https://www.curtinwritersclub.com/single-post/2017/03/18/A-Criticism-of-Trans-Exclusionary-Radical-Feminism>.

¹⁷ Camille Paglia, “Camille Paglia: The Modern Campus Cannot Comprehend Evil,” *Time*, September 29, 2014, <http://time.com/3444749/camille-paglia-the-modern-campus-cannot-comprehend-evil/>.

¹⁸ Jonathan V. Last, “Camille Paglia: On Trump, Democrats, Transgenderism, and Islamist Terror,” *Weekly Standard*, June 15, 2017, <http://www.weeklystandard.com/camille-paglia-on-trump-democrats-transgenderism-and-islamist-terror/article/2008464>.

¹⁹ Debra Soh, “Op-Ed: Are Gender Feminists and Transgender Activists Undermining Science?,” *Los Angeles Times*, February 10, 2017, <http://www.latimes.com/opinion/op-ed/la-oe-soh-trans-feminism-anti-science-20170210-story.html>.

²⁰ Tuck C. Ngun et al., “The Genetics of Sex Differences in Brain and Behavior,” *Frontiers in Neuroendocrinology* 32, no. 2 (2011), <https://doi.org/10.1016/j.yfrne.2010.10.001>.

²¹ Andrew Sullivan, “#MeToo and the Taboo Topic of Nature,” *New York Intelligencer*, January 19, 2018, <https://nymag.com/intelligencer/2018/01/sullivan-metoo-must-choose-between-reality-and-ideology.html>.

²² Juliet Lamb, “Are There ‘Transgender’ Proclivities in Animals?,” JSTOR Daily, October 6, 2016, <https://daily.jstor.org/transgender-proclivities-in-animals/>.

the claim of a biological predisposition towards transgenderism has not been primarily anchored in appeals to genetic evidence or the pursuit of a “trans gene.” Though studies have been conducted examining possible genetic origins for transgenderism, the number of studies has been scant, at least relative to studies exploring genetic factors that possibly influence sexual orientation. Additionally, these studies have largely focused on MtF (male-to-female) subjects given the frequency of MtF transgenderism relative to their FtM (female-to-male) counterparts.²³ Moreover, the results have largely been unexceptional or inconclusive due to a variety of factors, including a dearth in sample sizes, complications introduced by subjects receiving hormone treatment, and qualitative differences between transsexuals who identify as homosexual relative to their natal (i.e., biological) sex and those whose attractions are heterosexual relative to their natal sex.

A study that is occasionally cited in support of a genetic influence on transgenderism was conducted by a group of Australian researchers in 2008. Provocatively broadcast by media outlets at the time with headlines reading “Transsexual Gene Link Identified”²⁴ and “Transsexual Study Reveals Genetic Link,”²⁵ the actual conclusions of the study were far more modest. Undertaken with the objective of inspecting possible genetic causes for transsexualism, the study examined “the role of disease-associated repeat length polymorphisms in the androgen receptor (AR), estrogen receptor β (ER β), and aromatase (CYP19) genes.”²⁶ These three gene variants are typically associated with undermasculinization and/or -feminization, and the study found no associations for transsexualism (a term used in earlier studies interchangeably with transgenderism) for the ER β or CYP19 genes. An association was identified for the AR gene, with the conclusion that “male gender identity *might* be partly mediated through the androgen receptor” (emphasis added).²⁷ Thus, claims of genetic disposition remain unsupported, and efforts to identify genetic underpinnings for transgenderism are being revisited, with a new study underway examining a transsexual genome as a possible cause.²⁸

²³ See Anne A. Lawrence, “Autogynephilia and the Typology of Male-to-Female Transsexualism: Concepts and Controversies,” *European Psychologist* 22, no. 1 (2017), <https://doi.org/10.1027/1016-9040/a000276>.

²⁴ “Transsexual Gene Link Identified,” BBC News, October 26, 2008, <http://news.bbc.co.uk/2/hi/health/7689007.stm>.

²⁵ Helen Carter, “Transsexual Study Reveals Genetic Link,” ABC Science, October 27, 2008, <http://www.abc.net.au/science/articles/2008/10/27/2401941.htm>.

²⁶ Lauren Hare et al., “Androgen Receptor Repeat Length Polymorphism Associated with Male-to-Female Transsexualism,” *Biological Psychiatry* 65, no. 1 (2008), <https://doi.org/10.1016/j.biopsych.2008.08.033>.

²⁷ Ibid.

²⁸ Daniel Trotta, “Born This Way? Researchers Explore the Science of Gender Identity,” Reuters, August 3, 2017, <https://www.reuters.com/article/us-usa-lgbt-biology/born-this-way-researchers-explore-the-science-of-gender-identity-idUSKBN1AJ0F0>.

Though studies examining genetic factors for transgenderism have been either inconclusive or supportive of the conclusion that discordant gender identities have no genetic basis, neurological research has delivered ostensibly more reliable conclusions for those who argue for a biological origin of gender dysphoria. Accordingly, the notion of a “trans brain,” or brain gender incongruities, has been advanced as the primary source of gender dysphoria in contemporary transgender discussions. In addressing this contention, it is important first to recognize and fully acknowledge the nature of neurological malleability as represented in the concept of neuroplasticity. Neuroplasticity today often functions as a buzzword used to suggest that one can rewire one’s brain almost entirely (and, at times, in rather fantastical ways). Molecular and developmental neurobiologist Moheb Costandi writes that among the general public, neuroplasticity “is generally misunderstood, and misconceptions about what neuroplasticity is, and what it is capable of, are rife.”²⁹ Costandi goes on to describe neuroplasticity as “a catch-all term referring to the many different ways in which the nervous system can change.”³⁰ Though just fifty years ago scientific consensus recognized only a limited notion of brain formation that eventually calcified as time went on, research in the early 1960s began what would become an overhaul of this prior orthodoxy, demonstrating in a variety of experiments the full malleability of brain function and the effect of learning and other experiences on brain material. By way of example, a study conducted on taxi drivers in London found that they had greater gray matter volume in the hippocampus, resulting from the acquisition of spatial knowledge.³¹ Moreover, the same study found that the longer taxi drivers remained in their occupation, the more their right posterior hippocampal volume increased.³² To put this example in simple terms, components of taxi drivers’ brain structure adapted over time to the type of knowledge and experiences the drivers repeatedly carried out in the course of their daily vocation. Other studies have focused on the impact of self-conception and psychological factors on the brain, such as meditation,³³ stress,³⁴ and intentionality.³⁵

²⁹ Moheb Costandi, *Neuroplasticity* (Cambridge, MA: MIT Press, 2016), ix.

³⁰ Ibid.

³¹ Eleanor A. Maguire et al., “London Taxi Drivers and Bus Drivers: A Structural MRI and Neuropsychological Analysis,” *Hippocampus* 16, no. 12 (2006), <https://www.fil.ion.ucl.ac.uk/Maguire/Maguire2006.pdf>.

³² Ibid.

³³ Richard J. Davidson and Antoine Lutz, “Buddha’s Brain: Neuroplasticity and Meditation,” *IEEE Signal Processing Magazine* 25, no. 1 (2008), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2944261/>.

³⁴ Christopher Pittenger and Ronald S. Dunman, “Stress, Depression, and Neuroplasticity: A Convergence of Mechanisms,” *Neuropsychopharmacology* 33 (2008), <https://www.nature.com/articles/1301574>.

³⁵ Jean Askenasy and Joseph Lehmann, “Consciousness, Brain, Neuroplasticity,” *Frontiers in Psychology* 4, no. 412 (2013), <https://pubmed.ncbi.nlm.nih.gov/23847580/>.

Given the breadth of neurological malleability, it stands to reason that persons who conceive of themselves as gender dysphoric over prolonged periods of time would come to acquire some neurological idiosyncrasies reflecting this self-conception. This is even more the case for those who have convinced themselves for years, if not decades, that they possess a disoriented phenotype and who have received hormone therapy and/or undergone accompanying surgical procedures as a “corrective” measure. (See Appendix A, p. 64ff. below, for a fuller discussion of the interaction between the brain and culture in light of an emerging theory of brain morphology called the Culture-Brain-Behavior Model.)

Notwithstanding, the most authoritative paper synopsizing prior studies on brain structure and transsexualism is the 2016 study “A Review of the Status of Brain Structure Research in Transsexualism” by Guillamon et al.³⁶ With respect to the developmental path of transsexualism, there are three broad trajectories that serve as the paradigmatic lens through which studies on gender dysphoria (GD) are conducted: early-onset, late-onset, and rapid-onset. (We will return to this trifurcation later in the section entitled “Transgenderism,” p. 15ff. below.) Corresponding to these trajectories are distinct sexual attractions: early-onset gender dysphoria (beginning in childhood and continuing into adolescence and adulthood) almost always corresponds with homosexual attractions (MtF androphilia and FtM gynephilia), while late-onset gender dysphoria more readily occurs in those who are heterosexually inclined (MtF gynephiles and FtM androphiles).³⁷ The 2016 study discussed here centers exclusively on early-onset homosexual gender dysphoria, focusing on studies that examine the brain phenotype of early-onset FtM and MtF subjects both prior to and following cross-sex hormone treatment. The relevant findings are as follows:

- Studies examining homosexual MtF transsexuals before hormone therapy indicate that “the main morphological parameters of the brain are congruent with their natal sex in untreated homosexual MtFs.”³⁸ Thus, insofar as the main morphological parameters of the brain are concerned, androphilic MtF transsexuals demonstrate congruence with cisgender males. Nevertheless, “some cortical regions show feminine volume and thickness,” though this cortical pattern is “not the same as the one shown by control females.”³⁹ Likewise, the main white matter fascicles indicate demasculinization, whereas other fascicles are masculine. In this regard, the brain phenotype

³⁶ See Antonio Guillamon et al., “A Review of the Status of Brain Structure Research in Transsexualism,” *Archives of Sexual Behavior* 45, no. 7 (2016), <https://doi.org/10.1007/s10508-016-0768-5>.

³⁷ See *ibid.*, 1616.

³⁸ *Ibid.*, 1623b.

³⁹ *Ibid.*

of homosexual MtFs demonstrates a distinctiveness in both white and gray matter that mainly affects the right hemisphere of the brain.

- Homosexual FtM transsexuals, like their MtF counterparts, show gross morphological patterns that correspond to their natal sex. However, also like homosexual MtF transsexuals, homosexual FtM transsexuals demonstrate their own phenotype in other aspects of the brain phenotype like cortical thickness, subcortical structures, and the like, and “these changes are mostly seen in the right hemisphere.”⁴⁰

These findings demonstrate that neither homosexual MtF nor homosexual FtM persons possess a fully “feminized” (in the case of MtFs) or “masculinized” (in the case of FtMs) brain in a manner that departs substantially from their natal gender. Instead, the homosexual MtF brain “presents a mixture of masculine, feminine, and demasculinized traits,” while the homosexual FtM brain “presents a mixture of feminine, defeminized, and masculinized morphological traits.”⁴¹ The significance of the right hemispheric brain discordances remains subject to further study. The 2016 study notes that the right hemisphere is “mainly involved in the analysis of body perception and its emotional connotations” and makes the further point that “the emergence of a masculine or feminine identity must be strongly mediated by the early development of a male or female body self-perception.”⁴² Aside from these conclusions, the 2016 study also examines a study of non-homosexual MtF persons, though this study was limited in its sample size and concluded no significant variance from the brain phenotype of control males.

The 2016 study also reviewed the introduction of hormone treatment, and for both MtF and FtM transsexuals, morphological changes were observed after four months of continued treatment, although, as the study notes,

changes are to be expected when hormones reach the brain in pharmacological doses. Consequently, one cannot take hormone-treated transsexual brain patterns as evidence of a transsexual brain phenotype because the treatment alters brain morphology and obscures the pre-treatment brain pattern.⁴³

It should be noted that studies examining MtF behavior and brain structure outnumber FtM studies on account of frequency, with instances of MtF transgenderism exceeding those of FtM transgenderism.⁴⁴

⁴⁰ *Ibid.*, 1626.

⁴¹ *Ibid.*, 1627b.

⁴² *Ibid.*, 1629a.

⁴³ *Ibid.*, 1638b.

⁴⁴ See Lawrence, “Autogynephilia and the Typology of Male-to-Female Transsexualism,” 39, <https://doi.org/10.1027/1016-9040/a000276>, where the author states: “Biologic males with

Aside from the 2016 study, a similarly significant 1995 study entitled “A Sex Difference in the Human Brain and Its Relation to Transsexuality” is heavily cited in support of the “trans brain” claim.⁴⁵ The 1995 study examined the brain of six deceased adult MtF transsexuals who had undergone both hormone therapy and sex reassignment, finding that “the volume of the central subdivision of the bed nucleus of the stria terminalis (BSTc), a brain area that is essential for sexual behavior,” corresponded to female size.⁴⁶ Though this study remains a common point of reference, subsequent studies have complicated this picture, if not rendered it entirely irrelevant. Anne Lawrence examines the 1995 study alongside two subsequent studies, one in 2002 that observed BSTc development not occurring until adulthood and a 2006 study examining the effect of hormone therapy on brain volume. In summarizing these findings, she writes:

The brain-sex theory of transsexualism has never been easy to reconcile with clinical reality: Homosexual and non-homosexual MtF transsexualism are so different clinically that it is almost impossible to imagine that they could have the same etiology. Nevertheless, for a time the Zhou/Kruijver data gave the brain-sex theory a certain superficial plausibility. In 2002, Chung et al. reported new data that raised serious doubts about the brain-sex theory, but the authors were able to explain why the theory might still be plausible. The new data reported by Hulshoff Pol et al. in 2006 did not invalidate these explanations, but it rendered them largely irrelevant. The simplest and most plausible explanation of the Zhou/Kruijver findings is that they are attributable, completely or predominantly, to the effects of cross-sex hormone therapy administered during adulthood. There is no longer any reason to postulate anything more complicated.

The brain-sex theory was never helpful in explaining clinical observations; now it has become irrelevant to explaining neuroanatomical observations. It is time to abandon the brain-sex theory of transsexualism and to adopt a more plausible and clinically relevant theory in its place.⁴⁷

Given the intersection between sexually divergent brain phenotypes and homosexuality among transsexuals, American-Canadian sexologist Ray Blanchard has

transsexualism, referred to as male-to-female (MtF) transsexuals, significantly outnumber their female-to-male (FtM) counterparts and display greater clinical diversity.”

⁴⁵ Jiang-Ning Zhou et al., “A Sex Difference in the Human Brain and Its Relation to Transsexuality,” *Nature* 378, no. 6552 (1995), <https://doi.org/10.1038/378068a0>.

⁴⁶ Ibid., 68a.

⁴⁷ A. A. Lawrence, “A Critique of the Brain-Sex Theory of Transsexualism (2007),” *Semantic Scholar*, 2015, <https://pdfs.semanticscholar.org/bd96/cf1011a7a1de90c524335ffd15663ee977c2.pdf>.

theorized that “MtF and FtM homosexual transsexuality is an extreme expression of homosexuality,” suggesting “the following continuum: homosexual → gender dysphoric homosexual → transsexual homosexual.”⁴⁸ Blanchard went on further to theorize non-homosexual MtF transsexuality as a distinct paraphilia which he coined *autogynephilia*, a Greek term meaning “love of oneself as a woman.”⁴⁹ The theory of autogynephilia developed in response to repeated research and studies in which biologically male non-homosexual patients overwhelmingly reported an erotic desire to embody the female gender as the principal motivation for enacting transgender behavior and pursuing transgender medical treatment.⁵⁰ Blanchard is not alone in this observation, with studies reporting the phenomenon of autogynephilia as early as the early twentieth century.⁵¹ Other studies have argued for a correspondence between a desire for limb amputation and non-homosexual MtF transsexualism on account of the overlapping desire to “correct” one’s phenotype to match one’s perceived identity.⁵² Parallels between the two phenomena include “profound dissatisfaction with embodiment, related paraphilic from which the conditions plausibly derive (apotemnophilia—an acute desire for limb amputation—and autogynephilia), sexual arousal from simulation of the sought after status (pretending to be an amputee and transvestitism), attraction to persons with the same body type one wants to acquire, and an elevated prevalence of other paraphilic interests.”⁵³

Like Blanchard, other specialists in the field of gender studies and psychotherapy, such as Anne Lawrence, Michael Bailey, and Kenneth Zucker, have also endorsed autogynephilia along with the basic parameters of Blanchard’s conclusion that MtF transsexualism is an essentially erotic manifestation and *not* indicative of a deep-set feminine essence. On this, Bailey writes in his work *The Man Who Would Be Queen*:

One cannot understand transsexualism without studying transsexuals’ sexuality. Transsexuals lead remarkable sex lives. Those who love men become women to attract them. Those who love women become the women they love.⁵⁴

⁴⁸ Ibid.

⁴⁹ Ray Blanchard, “Early History of the Concept of Autogynephilia,” *Archives of Sexual Behavior* 34 (2005), <https://doi.org/10.1007/s10508-005-4343-8>.

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Anne A. Lawrence, “Clinical and Theoretical Parallels between Desire for Limb Amputation and Gender Identity Disorder,” *Archives of Sexual Behavior* 35, no. 3 (2006), <https://doi.org/10.1007/s10508-006-9026-6>.

⁵³ Ibid.

⁵⁴ J. Michael Bailey, *The Man Who Would Be Queen: The Science of Gender-Bending and Transsexualism* (Washington, DC: Joseph Henry Press, 2003), xii.

Several writings have been published critiquing Blanchard's conclusions, most notably a study by Charles Moser, who argues against autogynephilia as a comprehensive explanation for gynephilic MtF transsexuality.⁵⁵ Instead, Moser suggests a multiplicity of causes that require independent clinical diagnosing without endorsing any factor in particular as correlating completely with non-homosexual MtF transsexuality.⁵⁶ The debate remains an active one, with Anne Lawrence authoring a comment article on Moser's critique of autogynephilia.⁵⁷ In this article, Lawrence calls into question the rigor of Moser's research, highlighting shortcomings in his research methods.⁵⁸

In addition to this, more fundamental questions between the relationship of brain morphology and cognition remain subject to significant scholarly dispute. Perhaps the fiercest critic of those who instrumentalize neurological research and brain imaging to explain cognitive processes was the late William Uttal. Drawing on the works of philosophers, neuroscientists, and others, Uttal revealed problems at the core of cognitive neuroscience, including the "enormous complexity, non-linearity, and complex interaction of both the neural and cognitive domains" and how they "pose what may be intractable problems of analysis and explanation for anyone with the temerity to study human mentation."⁵⁹ Uttal would go further, describing localization in cognitive neuroscience—attempts to correlate psychological phenomena, be they subjective experiences (i.e., qualia) or mental processes of other sorts, with localized patterns identified in brain imaging—as a "new phrenology."⁶⁰ According to this critique, cognitive neuroscience relies on correlative fallacies of the highest order, ones that depend on ill-defined mental activity (the full accessibility of which is itself highly contested), the assumption that psychological phenomena can be reduced to "neural, cognitive, or computational components,"⁶¹ and the total lack of ability directly and persistently to correlate parts of the brain with specific tasks (i.e., the problem of replicability).

The application of this critique to brain studies on transgenderism introduces important questions: Can "male" and "female" brains be distinguished so conclusively that aberrant brain features may be regarded as either effeminate or mannish?

⁵⁵ Charles Moser, "Blanchard's Autogynephilia Theory: A Critique," *Journal of Homosexuality* 57, no. 6 (2010), <https://doi.org/10.1080/00918369.2010.486241>.

⁵⁶ *Ibid.*

⁵⁷ Anne A. Lawrence, "Something Resembling Autogynephilia in Women: Comment on Moser (2009)," *Journal of Homosexuality* 57, no. 1 (2010), <https://doi.org/10.1080/00918360903445749>.

⁵⁸ *Ibid.*

⁵⁹ William Uttal, *Dualism: The Original Sin of Cognitivism* (Mahwah, NJ: Lawrence Erlbaum Associates Publishers, 2004), 2.

⁶⁰ William Uttal, *The New Phrenology: The Limits of Localizing Cognitive Processes in the Brain* (Cambridge, MA: MIT Press, 2001).

⁶¹ *Ibid.*, ix.

For instance, if the hippocampi size is enlarged in a female who prefers to dress like a male, does this fall outside the normal range of hippocampi size observed in women who conform to female sartorial habits? How decisive is this brain difference, and is it different enough to suggest definitively that the brain of this woman is "male"? And what of those whose brain structure and morphology show no changes at all, even after hormone therapy? To what degree should we adopt biological determinism of this sort to explain transgenderism as a phenomenon when its substantive claims are all psychological at their core? And to what degree should we entertain the now common two-step of insisting that individual "choices" be respected regardless of their comprehensibility by any scientific measure while simultaneously proclaiming a "born this way" thesis without so much as a single reliable, verified, corroborated, and peer-reviewed piece of research to support this claim?

To summarize, the relevant findings to date find morphological divergence in the brain to be most pronounced among homosexual transsexuals, though even this research concludes that "the main morphological parameters of the brain" for untreated homosexual transsexuals "are congruent with their natal sex."⁶² Greater divergence has been reported among transsexuals who have undergone prolonged hormone therapy, which is consistent with findings in other studies of subjects who have received pharmacological doses of hormones that reach the brain. The data to date does not support significant morphological divergences for untreated heterosexual transsexuals, and many studies on transsexualism remain inconclusive owing to limited sample sizes and other control factors. Some researchers (such as Blanchard) have proposed a theory of MtF homosexual transsexualism as an extreme expression of homosexuality and non-homosexual MtF transsexualism as correlative with a pronounced cross-gender fetish (namely, autogynephilia), while others have drawn parallels between non-homosexual MtF transsexualism and male desire to carry out limb amputation.

Alternative theories abound concerning gender dysphoria, and resistance to anything short of full-fledged confirmation of prevailing ideas concerning gender fluidity and an "essential" gender identity that departs from one's natal sex has led to severe backlash and targeted campaigns calling for career terminations. In 2016,

⁶² There are three main morphological characteristics in the brain that relate to sex: (1) brain size (with the overall size for males being greater than that for females, but individual components of the brain are also "sexed" in the sense of being typically more pronounced in either males or females, respectively); (2) the complex networks of these sexed regions (such as the accessory olfactory system, which is correlated with sexual and maternal behaviors); and (3) natural cell death (apoptosis) and neurogenesis. Research has found that all three of these characteristics correspond to the natal sex in gender dysphoric or (pre-treatment) transgender individuals, which contradicts the common notion of the transgender individual as a "female in a male body" (or vice versa). Indeed, the most significant neurological characteristics that are sexed show no divergences to speak of between transgender individuals and non-transgender members of their native sex.

Dr. Kenneth Zucker, a leading researcher in the field of sex transitions, was fired by a Canadian clinic due to pressure by a group of trans activists.⁶³ More recently, journalist Jesse Singal published a piece in the *Atlantic* entitled “When Children Say They’re Trans” calling for deliberation and prudence prior to concluding that sex change surgery or hormone treatment is the right solution for gender dysphoric children.⁶⁴ In response, trans activists have targeted Singal viscerally, questioning his motives and castigating him as uninformed, obstinate, and plainly bigoted.⁶⁵

These pressures notwithstanding, the origins of transgenderism remain contested, while the significance of brain change is itself subject to considerable debate given the state of neurological research and the malleability of brain structures overall. Accordingly, the simplistic notion of transsexualism as involving a “biological male with a female brain” or vice versa does not cohere with actual research findings, and the various studies used to depict transgenderism as a congenital condition can equally be used to problematize the phenomena of gender dysphoria, hormone therapy, and the desire for surgical alteration. The inherent fluidity of biological disposition simply suggests what is already well known: namely, that whatever one thinks of transgenderism, appeals to inherency are a double-edged sword, and the view that “gender” (as opposed to biological sex) is inherently embedded in one’s psychological state is a primarily metaphysical, rather than a scientific or empirical, claim.

III. Transgenderism

A. Transgenderism: A Brief History

The history of modern Western transgenderism is subject to significant debate. Gender theorists maintain that transgenderism predates the modern era and cuts across human civilization. This view treats gender nonconformity as a biologically determined phenomenon that manifests in myriad taxonomies and communities across human history. Accordingly, any “third gender,” past or present, is regarded as reinforcing a larger narrative of transgenderism as being an essential part of the human condition for a minority of people whose gender identity differs from their anatomical sex. (This characterization, however, is rightly contested by many as an anachronistic transposition of modern Western categories onto past peoples and societies that held no notion of a gender identity distinct from biological sex, at least not in the manner in which it exists today.) This history includes recasting eunuchs,

⁶³ Jesse Singal, “How the Fight over Transgender Kids Got a Leading Sex Researcher Fired,” *Cut*, February 7, 2016, <https://www.thecut.com/2016/02/fight-over-trans-kids-got-a-researcher-fired.html>.

⁶⁴ Jesse Singal, “When Children Say They’re Trans,” *Atlantic*, July/August 2018, <https://www.theatlantic.com/magazine/archive/2018/07/when-a-child-says-shes-trans/561749/>.

⁶⁵ Harron Walker, “What’s Jesse Singal’s F** Deal?,” *Jezebel*, June 19, 2018.

transvestites, the belief in gender ambiguous deities, and related phenomena as all supporting an allegedly long and storied history of the transgender experience.

Critics of this reading argue that transgenderism is—like its exponents contend gender itself to be—socially constructed. Scholars like Sheila Jeffreys chronicle this history and date it to a relatively recent past, with the term transgenderism having been coined only in 2005 by cross-dresser Virginia Prince in order to “create a more acceptable face for a practice previously understood as a ‘paraphilia’—a form of sexual fetishism.”⁶⁶ Prior to Prince, “transsexualism” was the more common term used to describe persons who desired sex modifications, a phenomenon that itself dates only to the mid-twentieth century.⁶⁷ As we will see in the forthcoming section on psychological developments, the reengineering of terms and concepts for the purpose of destigmatization figures heavily in transgender advocacy.

The first recorded case of surgical intervention for gender dysphoria is that of Lili Elbe (born Einar Magnus Andreas Wegener, d. 1931), a Danish painter who, after marriage, moved to Paris in 1912 and openly identified as a female.⁶⁸ In the year 1930, Elbe went to Germany for sex reassignment surgery, which was highly experimental at the time. Elbe underwent four separate surgeries over the course of two years, dying shortly thereafter, in September 1931, due to an infection resulting from a labiaplasty.⁶⁹ Roughly twenty years later, Christine Jorgensen (born George Jorgensen, d. 1989), a military servicemember during the Second World War, traveled to Copenhagen for a sex reassignment surgery.⁷⁰ Unlike Elbe, Jorgensen additionally received hormone therapy, returning to the United States in 1952 to headline stories reading “Ex-GI Becomes Blonde Beauty.”⁷¹ Jorgensen lived a life of celebrity until his passing in 1989. Jorgensen became an advocate of transgenderism upon his return to the US, stating in the year of his death that he had given the sexual revolution a “good kick in the pants.”⁷²

Sex reassignment surgery was not available in the United States until the year 1965, when the Johns Hopkins Hospital became the first institution in the country to offer it.⁷³ The founder and chief publicist for the program was psychologist John

⁶⁶ Sheila Jeffreys, *Gender Hurts: A Feminist Analysis of the Politics of Transgenderism* (Abingdon: Routledge, 2014), 15.

⁶⁷ Ibid., 14.

⁶⁸ “Biographies of Famous LGBT People: Lili Elbe,” Lesbian, Gay, Bisexual, Transgender History Month UK, <http://lgbthistorymonth.com/lili-elbe?tab=biography>.

⁶⁹ Ibid.

⁷⁰ Chloe Hadjimatheou, “Christine Jorgensen: 60 Years of Sex Change Ops,” BBC News, November 30, 2012, <https://www.bbc.com/news/magazine-20544095>.

⁷¹ Ibid.

⁷² Ibid.

⁷³ Rachel Witkin, “Hopkins Hospital: A History of Sex Reassignment,” *Johns Hopkins News-Letter*, May 1, 2014, <https://www.jhunewsletter.com/article/2014/05/hopkins-hospital-a-history-of-sex-reassignment-76004/>.

Money, a figure who fell into disrepute following his handling of the ignominious David Reimer case (also known as the “Joan/John” case).

John Money and the case of David Reimer

John Money was an early advocate of gender constructionism, arguing that gender was something learned rather than inherent. He was featured on television and in several print media during the early years of the Johns Hopkins sex reassignment program. It was on account of this notoriety that Janet and Ron Reimer approached him seeking advice concerning their infant son, Bruce, who had just suffered a botched electrocautery procedure intended to remediate Bruce’s phimosis.⁷⁴ The failed procedure left the infant with a penis damaged beyond surgical repair, and his parents were concerned about Bruce’s future happiness and sexual function given his genital abnormality. Money and the Hopkins team persuaded Bruce’s parents that sex reassignment was in the child’s best interests, arguing that while a vaginal pathway could be constructed surgically, a penis could not. Moreover, given Bruce’s young age, he would have experienced limited, if any, socialization that would contribute to any conception of a male gender identity. The fact that Bruce had an identical twin brother (Brian) would also offer a unique opportunity to put Money’s constructivist theory to the test as a control factor against which Bruce’s successful socialization as a female could be reasonably assessed.

The Reimers consented to Money’s counsel, and at the age of twenty-two months, Bruce underwent genital reconstructive surgery and was subsequently named Brenda, after which he grew up with periodic hormone treatment and psychotherapy from Money and his extended team to reinforce his new female gender identity. Bruce would go on to experience severe psychological distress and damage throughout his life, threatening suicide at the age of thirteen if he had to return to see Money once more. Approximately two years after that incident, Bruce’s parents revealed to their son that he had undergone sex reassignment as an infant, after which he chose to retransition to a male identity and adopt the name David. David subsequently revealed the details of his life and treatment with Money in a memoir written by John Colapinto entitled *As Nature Made Him: The Boy Who Was Raised as a Girl*. Money’s “therapeutic” techniques and procedures bordered on the unspeakable and regularly involved David participating with his twin brother, Brian, in a variety of sexual acts. David went on to commit suicide at the age of thirty-eight, while his brother Brian developed schizophrenia and died of an overdose of antidepressants in his thirties as well.

The significance of the David Reimer case, at least for our purposes, lies in the activities of John Money and his role as a leading exponent of gender construc-

⁷⁴ Phimosis, relatively common in uncircumcised infant boys, is a condition in which the foreskin cannot be retracted from around the tip of the glans.

tionism. Money developed a number of concepts that lie at the center of transgender discourse today, including gender identity, the “love map” (a mental map that guides one’s erotic desires), and paraphilia (a term coined by Money to replace “perversions”). It should also be noted that Money introduced the now common term “sexual orientation” in place of “sexual preference” to signify an immutability in relation to homosexual desires. Over the course of his work with Reimer, Money routinely misrepresented David’s female development as “Brenda,” describing it as an ongoing success with only rare (and relatively minor) setbacks. This deliberate falsification demonstrated Money’s intractable commitment to gender constructionism and is redolent of the dogmatism that is characteristic of many present-day gender constructionists.

Johns Hopkins discontinued sex reassignment procedures in 1979, only fifteen years after initiating them. Though Money’s methods and field work with the Reimers came to light long after the cessation of sex reassignment at Hopkins, some scholars have speculated that Money’s scholarly writings on the subjects of child pornography and incest played a larger role in closing the program. In these writings, Money argued for the destigmatization of incest, claiming that erotic love was entirely natural even among close kin. Money’s proposed sexual schema was indeed an abnormal one, and there is reason to believe that the impact of this literature extended to those on the ground who were disquieted by Money’s publications and research; during this same period, Howard Jones, one of the chief surgeons connected with the Hopkins program, left the institution.

Johns Hopkins, Jon Meyer, and Paul McHugh

Jon Meyer, who ran Johns Hopkins’ Sexual Behaviors Consultation Unit, published an important review of the Hopkins sex reassignment program in a 1982 study entitled “The Theory of Gender Identity Disorders.” In this study, Meyer reflects upon his decade of work with 526 patients “having the most severe disturbances of gender, disturbances reflected in their application for surgical sex reassignment.” Meyer reported a complex set of clinical symptoms in these patients. For those who underwent sex reassignment procedures, long-term follow-up (ten or more years) “suggested that feelings of isolation and emptiness continued,”⁷⁵ while there remained “a profound sense that, whereas externals had been changed, the patient was not truly male or female, merely a reasonable facsimile.”⁷⁶ Meyer concluded that transsexual disjunction between self-representation and anatomy was “a

⁷⁵ Jon K. Meyer, “The Theory of Gender Identity Disorders,” *Journal of the American Psychoanalytic Association* 30, no. 2 (1982): 389, <https://pdfs.semanticscholar.org/1a52/27c2e723240f5ef5461b6fc31a04a80303dd.pdf>.

⁷⁶ Ibid., 389–390.

defensive, symptomatic condensation⁷⁷ of remarkable proportions,” further stating that “the destruction of the meaning ordinarily associated with genital anatomy is a violent psychic act, one means by which the superficially absent rage is expressed.”⁷⁸ In a similar vein, an earlier 1979 piece by Meyer concluded that “sex reassignment surgery confers no objective advantage in terms of social rehabilitation.”⁷⁹

Another critical figure worth mentioning here briefly is the former chief of psychiatry at Johns Hopkins Hospital, Dr. Paul McHugh, who served as a leading voice in the closure of the Hopkins gender identity clinic in 1979. McHugh has written a number of articles as of late defending that decision, arguing that sex reassignment does little more than “cooperate with a mental illness” and that psychiatrists would do better to try to “fix the minds” of those suffering from gender dysphoria and “not their genitalia.”⁸⁰ Elsewhere, McHugh ruminates on the state of medical practice:

Without any fixed position on what is given in human nature, any manipulation of it can be defended as legitimate. A practice that appears to give people what they want—and what some of them are prepared to clamor for—turns out to be difficult to combat with ordinary professional experience and wisdom. Even controlled trials or careful follow-up studies to ensure that the practice itself is not damaging are often resisted and the results rejected.⁸¹

McHugh’s observations and strident opposition to gender constructionism and its concomitant medical campaign have not gone unnoticed. Trans activists and supporters of transgenderism as a condition requiring medical intervention have maligned McHugh’s research and accused him of “distorting science” and

⁷⁷ Condensation: “Condensation is one of the methods by which the repressed returns in hidden ways. For example, in dreams multiple dream-thoughts are often combined and amalgamated into a single element of the manifest dream (e.g., symbols). According to Freud, every situation in a dream seems to be put together out of two or more impressions or experiences. One need only think about how people and places tend to meld into composite figures in our dreams. The same sort of condensation can occur in symptom-formation.” See Dino Felluga, “Introduction to Psychoanalysis,” <https://www.cla.purdue.edu/english/theory/psychoanalysis/definitions/condensation.html>. In simple terms, an example of dream condensation would be seeing a fence, which may symbolize a number of things, including a condensation of worries about one’s safety, or stand in for other issues that may be represented by boundaries.

⁷⁸ Meyer, “Theory of Gender Identity Disorders,” 405, <https://pdfs.semanticscholar.org/1a52/27c2e723240f5ef5461b6fc31a04a80303dd.pdf>.

⁷⁹ Jon K. Meyer and Donna J. Reter, “Sex Reassignment: Follow-Up,” *Archives of General Psychiatry* 36, no. 9 (1979): 1015, <https://doi.org/10.1001/archpsyc.1979.01780090096010>.

⁸⁰ See Paul R. McHugh, “Surgical Sex: Why We Stopped Doing Sex Change Operations,” *First Things*, November 2004, <https://www.firstthings.com/article/2004/11/surgical-sex>.

⁸¹ Cited in Ryan T. Anderson, *When Harry Became Sally: Responding to the Transgender Moment* (New York: Encounter Books, 2018), 18.

“spreading transphobic misinformation”⁸² while “dangerously undermining the safety, security and well-being of LGBTQ people.”⁸³ Meanwhile, conservative political actors and representatives have leveraged McHugh’s writings in congressional discussions concerning sex reassignment procedures, including a 2016 House hearing on transgender surgeries.⁸⁴

In October 2016, Johns Hopkins released a letter entitled “Johns Hopkins Medicine’s Commitment to the LGBT Community” in order to assuage public concern over the possible connection between McHugh and the institution. Although McHugh is not mentioned by name, the letter states that

some have questioned our position, both inside and outside the institution, not because of any change in our practice or policy, but because of the varied individual opinions expressed publicly by members of the Johns Hopkins Medicine community. We have taken these concerns seriously. We want to reiterate our institutional support for LGBT individuals and update you on the work we are doing to further that commitment.⁸⁵

The letter goes on to announce the following:

- “Johns Hopkins Children’s Center physicians helped lead an American Academy of Pediatrics committee that authored the 2013 policy statement that supports access to clinically and culturally competent health care for all LGBT and questioning youth.
- “In field and clinical research, Johns Hopkins University faculty members have advanced understanding of LGBT health and well-being, contributing to the important work of counteracting the negative effects of bias, discrimination and stigma that can hinder LGBT communities from seeking and receiving the best health care.
- “In the past year, two Johns Hopkins Medicine task forces on LGBT health care have been charged with developing new paths for our institutions to

⁸² Brynn Tannehill, “Johns Hopkins Professor Endangers the Lives of Transgender Youth,” *HuffPost*, March 20, 2016, https://www.huffpost.com/entry/johns-hopkins-professor-e_b_9510808.

⁸³ “McHugh Exposed: HRC Launches Website Debunking the Junk Science of Paul McHugh,” Human Rights Campaign, April 21, 2017, <https://www.hrc.org/press/mchugh-exposed-hrc-launches-website-debunking-the-junk-science-of-paul-mchu>.

⁸⁴ See transcript “TRANSGENDER SURGERY; Congressional Record Vol. 162, No. 89,” House of Representatives, June 7, 2016, <https://www.congress.gov/congressional-record/2016/06/07/house-section/article/H3495-1>.

⁸⁵ “Johns Hopkins Medicine’s Commitment to the LGBT Community,” Johns Hopkins University, February 27, 2017, <https://us5.campaign-archive.com/?u=bd75ef1a5cad0cbfd522412c4&id=7e2d7e0752&e=bc0b79f010>.

further approaches to evidence-based, patient-centered care for LGBT individuals.

- “We have committed to and will soon begin providing gender affirming surgery as another important element of our overall care program, reflecting careful consideration over the past year of best practices and the appropriate provision of care for transgender individuals.”⁸⁶

Since publishing the letter, so-called gender affirmation surgical services have commenced and are now publicly listed among John Hopkins’ surgical services.⁸⁷

Recent developments

Johns Hopkins is but a microcosm of what has been occurring in the public square. Though transgenderism and its underlying clinical diagnosis of Gender Identity Disorder were once regarded as a distinct mental illness, the past decade and a half has witnessed a substantial shift in public opinion. Consequently, determining public and private transgender policy, suitable pronouns, the relationship of gender to personal identity, and the appropriateness of surgical intervention for gender dysphoric adolescents and adults have become politically charged topics that are now being litigated through an eclectic mix of policy makers on Capitol Hill, medical professionals of various fields, activists, and other culturally influential voices.

Simultaneous with this debate has been a marked shift in attitudes towards gender, transgenderism, and adolescent gender self-conception. In a recent study published in the journal *Pediatrics*, approximately three percent of Minnesota teens reported that they did not identify with traditional gender labels (i.e., “boy” or “girl”).⁸⁸ In another study conducted by UCLA, a full twenty-seven percent (!) of those studied between the ages of twelve and seventeen in California were determined to be “highly gender nonconforming (GNC).”⁸⁹ Compare this to reported rates of 6.8/100,000 MtF and 2.6/100,000 FtM transgenderism among adults and the disproportion comes into clearer view. We will return to the subject of adolescent GD below (see subsection “[Childhood-onset gender dysphoria](#),” p. 24ff.).

⁸⁶ Ibid.

⁸⁷ “Gender Affirmation Surgical Services,” Johns Hopkins Center for Transgender Health, November 29, 2018, https://www.hopkinsmedicine.org/center_transgender_health/services/surgical-services.html.

⁸⁸ G. Nicole Rider et al., “Health and Care Utilization of Transgender and Gender Nonconforming Youth: A Population-Based Study,” *Pediatrics* 141, no. 3 (2018), <https://doi.org/10.1542/peds.2017-1683>.

⁸⁹ Bianca D.M. Wilson et al., “Characteristics and Mental Health of Gender Nonconforming Adolescents in California,” UCLA Center for Health Policy Research and the Williams Institute, 2017, <http://healthpolicy.ucla.edu/publications/Documents/PDF/2017/gncadolescents-factsheet-dec2017.pdf>.

It should be noted that emerging treatments of gender nonconformity in gender studies are transcending commonplace transgenderism (i.e., transitioning from one gender to another) with new theories and conceptions of nonconformity that attempt to situate individuals fully outside the established male–female binary. One increasingly invoked category that reflects this tendency is known as *genderqueer* (GQ), a term used to denote a departure from the gender binary without situating individuals within a prefabricated gender/non-gender stereotype. Though it shares conceptual overlap with transgenderism in its repudiation of the notion of an inherent birth gender, the term *genderqueer* differs from transgenderism in the “persistent unease [of those who identify as *genderqueer*] with being associated *only* with the binary gender assigned to them from infancy—apart from that, their expressions, experiences, and preferences vary greatly from individual to individual.”⁹⁰

Rogers Brubaker furthers this discourse to examine models of transgenderism that go beyond—or, in other instances, that mix—gender deviations, oftentimes as a result of a desire to maintain aspects of one’s “pre-trans” self. In describing this phenomenon, Brubaker writes:

The desire to continue to express aspects of one’s pretransition self has found support from intellectuals and activists who have sought to emancipate the transsexual experience from prevailing forms of medical control and from the need to pass as a ‘natural’ member of the gender of choice, both of which encouraged or even required rigidly stereotypical gendered presentations of self.⁹¹

Brubaker goes on to introduce modes of transgenderism dubbed the “trans of between” and “trans of beyond,” the former of which speaks of the “positioning of oneself with reference to the two established categories, without belonging entirely or unambiguously to either one,”⁹² while the latter involves “positioning oneself in a space that is not defined with reference to established categories.”⁹³

Although some of these theories are receiving significant attention in certain academic quarters, the phenomenon of gender nonconformity continues to emerge most commonly in the form of transgenderism with two relatively stable identities: MtF and FtM. Given the growing appeal of reformative gender projects and the increasing social authority accorded to constructionist voices and programs, the

⁹⁰ Evan Urquhart, “What the Heck Is *Genderqueer*?” *Slate*, March 24, 2015, <https://slate.com/human-interest/2015/03/genderqueer-what-does-it-mean-and-where-does-it-come-from.html>.

⁹¹ Rogers Brubaker, *Trans: Gender and Race in an Age of Unsettled Identities* (Princeton, NJ: Princeton University Press, 2016), 98.

⁹² Ibid., 72.

⁹³ Ibid., 73.

following section examines the different types of transgenderism and provides a brief review of trans activism today.

B. Transgenderism: Types

Transgenderism is not a single, unified phenomenon. Rather, it covers a variety of phenomena that can diverge considerably from one case to the next. Clinically, the condition that is said to cause transgenderism was formerly known as Gender Identity Disorder (GID), a diagnostic label that held until 2013, when the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) reclassified the condition as Gender Dysphoria (GD).⁹⁴ The name *gender dysphoria* served the purpose of de-stigmatizing transgenderism and shifting the relevant psychological concern to one of distress, anxiety, and related anguish, in contrast to GID, which implies that gender identity divergence is an objective mental illness in and of itself.

Individuals with GD “experience a strong desire to be treated as the other gender (or some alternative gender different from their assigned gender), and/or to be rid of their sex characteristics, and/or the strong conviction of having feelings and reactions typical of the other gender (or some alternative gender).”⁹⁵ In examining gender dysphoria, psychologists have attempted to classify the phenomenon into at least three different subtypes. (It should be noted that there are other, less common types that have been discussed and written about, though we will not attend to them here for the sake of simplicity.) The classification of GD into subtypes is critical for a number of reasons. For one, classification assists in better understanding the variability in GD cases and gender transitions. This is a marked departure from the current public discourse, in which transgenderism is treated as a single phenomenon with all cases reducible to a simple matter of individual choice. Cases involving transgenderism can differ dramatically from person to person. Consider, for example, the case of Jazz Jennings, a natal male who was “so feminine that she earned a diagnosis of gender identity disorder at the age of four.” By comparison, Chaz Bono, a natal female, publicly identified as lesbian in his (then her) mid-20s and only transitioned nearly two decades later. Caitlyn Jenner, a natal male, had been heterosexually married (i.e., to women) on three separate occasions and has six children from those marriages. Each of these individuals presents substantive differences concerning his/her gender identity and ultimate transition.

The trifurcation of transgenderism that we will examine here intersects four factors, namely, (1) age (child vs. adolescent vs. adult), (2) speed of onset (sudden

vs. gradual), (3) sexual attraction (homosexual vs. heterosexual as measured against natal sex), and (4) sexual ratio (frequency of occurrence in natal males versus natal females). The three types of transgenderism are

1. childhood-onset gender dysphoria
2. autogynephilic gender dysphoria
3. rapid-onset gender dysphoria.

Childhood-onset gender dysphoria

Also referred to as early-onset gender dysphoria, childhood-onset gender dysphoria refers to children, as young as age three up through adolescence, who “behave like the other sex in a variety of ways, including preferences of dress and appearance, play style, playmate preferences, and interests and goals.”⁹⁶ The latest edition of the *Diagnostic and Statistical Manual of Mental Disorders*, DSM-5, provides the following description for childhood gender dysphoria:

- A. A marked incongruence between one’s experienced/expressed gender and assigned gender, of at least six months’ duration, as manifested by at least six of the following criteria (one of which must be Criterion A1):
 1. A strong desire to belong to the other gender or an insistence that one is the other gender (or some alternative gender different from one’s assigned gender)
 2. In boys (assigned gender), a strong preference for cross-dressing or simulating female attire, or in girls (assigned gender), a strong preference for wearing only typically masculine clothing and a strong resistance to wearing typical feminine clothing
 3. A strong preference for cross-gender roles in make-believe or fantasy play
 4. A strong preference for the toys, games, or activities stereotypically used or engaged with by the other gender
 5. A strong preference for playmates of the other gender
 6. In boys (assigned gender), a strong rejection of typically masculine toys, games, and activities and a strong avoidance of rough-and-tumble play, or in girls (assigned gender), a strong rejection of typically feminine toys, games, and activities
 7. A strong dislike of one’s sexual anatomy
 8. A strong desire for the primary and/or secondary sex characteristics that match one’s experienced gender

⁹⁴ Mark Moran, “New Gender Dysphoria Criteria Replace GID,” *Psychiatric News* 48, no. 7 (2013), <https://psychnews.psychiatryonline.org/doi/full/10.1176/appi.pn.2013.4a19>.

⁹⁵ Riittakerttu Kaltiala-Heino et al., “Gender Dysphoria in Adolescence: Current Perspectives,” *Adolescent Health, Medicine and Therapeutics* 9 (2018), <https://doi.org/10.2147/AHMT.S135432>.

⁹⁶ J. Michael Bailey and Ray Blanchard, “Gender Dysphoria Is Not One Thing,” 4thWave Now, December 7, 2017, <https://4thwavenow.com/2017/12/07/gender-dysphoria-is-not-one-thing/>.

- B. The condition is associated with clinically significant distress or impairment in social, school, or other important areas of functioning.⁹⁷

Critics have called the above criteria into question, arguing that they rely heavily on sex stereotypes and include characteristics that are commonly observed among otherwise normal and healthy children. A *New York Times* op-ed by a mother named Lisa Selin Davis, published in April 2017, makes this precise point. Entitled “My Daughter Is Not Transgender, She’s a Tomboy,”⁹⁸ Davis’s piece expresses frustration with others’ calling into question her daughter’s gender identity simply on account of her interests (she enjoys sports), friends (she is friends primarily with boys), and hairstyle (she likes her hair short). She writes: “I want trans kids to feel free and safe enough to be who they are. I also want adults to have a fluid enough idea of gender roles that a 7-year-old girl can dress like ‘a boy’ and not be asked—by people who know her, not strangers—whether she is one.”⁹⁹

Although statistics are not precise concerning the prevalence of childhood gender dysphoria, recent studies have reported relative stability of childhood GD cases over the past decade, though adolescent cases have experienced a marked increase.¹⁰⁰ Possible reasons noted for the increase in adolescent cases include the influence of social media, a preference for being trans over being gay or lesbian, and the social status given in some youth subcultures to transgender individuals.¹⁰¹ In one study, an adolescent girl is reported to have remarked, “If I walk down the street with my girlfriend and I am perceived to be a girl, then people call us all kinds of names, like *lezzies* or *faggots*, but if I am perceived to be a guy, then they leave us alone”¹⁰²—thus resorting to transgenderism as a recourse against hazing or other forms of anti-gay animus.

Causes of childhood GD remain elusive, though “genes, hormonal influences in the womb, and environmental factors are all suspected to be involved.”¹⁰³ When GD appears in adolescence, which often falls into the two categories discussed below (autogynephilic and rapid-onset), it is reported that “parent–infant interpersonal

⁹⁷ *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. (DSM-5) (Arlington, VA: American Psychiatric Association, 2017).

⁹⁸ Lisa Selin Davis, “My Daughter Is Not Transgender, She’s a Tomboy,” *New York Times*, April 18, 2017, <https://www.nytimes.com/2017/04/18/opinion/my-daughter-is-not-transgender-shes-a-tomboy.html>.

⁹⁹ *Ibid.*

¹⁰⁰ See, for instance, Hayley Wood et al., “Patterns of Referral to a Gender Identity Service for Children and Adolescents (1976–2011): Age, Sex Ratio, and Sexual Orientation,” *Journal of Sex & Marital Therapy* 39, no. 1 (2013), <https://doi.org/10.1080/0092623X.2012.675022>.

¹⁰¹ *Ibid.*

¹⁰² *Ibid.*

¹⁰³ “Gender Dysphoria,” *Psychology Today*, <https://www.psychologytoday.com/us/conditions/gender-dysphoria>.

issues” and related trauma—including, but not limited to, sexual trauma—can play a contributing role,¹⁰⁴ as well as depression and anxiety, borderline personality disorder, and social contagion.¹⁰⁵

A feature of adolescent GD is the reported correspondence it bears with Autism Spectrum Disorder (ASD). Samples of adolescents who are referred to gender identity services reveal that six to twenty percent of such cases also have ASD, thus representing a significantly higher correlation as compared with studies conducted on adults (though ASD and GD co-occurrence is nonetheless common among adults as well).¹⁰⁶

It should be noted here that of all GD types, childhood cases have become a particularly acute battleground in the public square. Much of the consternation surrounds the question of what is known as *desistance*, which refers to the possibility—and, in most cases, the likelihood—of children eventually going on to accept their biological bodies rather than permanently identifying as transgender. Studies examining adolescent GD have consistently reported statistically high rates of desistance, with some studies revealing a desistance rate as high as eighty-four percent.¹⁰⁷ It should be noted that literally dozens of studies report high rates of desistance, even as the statistical outcomes differ.¹⁰⁸ In other words, the self-resolution of childhood GD is a common occurrence and one that is in keeping with what is otherwise known about childhood development and the volatility of childhood self-perception.

In responding to the multitudinous studies confirming high rates of desistance, several transgender advocates have published against what they term the “desistance myth.” In January 2016, Brynn Tannehill of the Trans United Fund published an article in *HuffPost* arguing against desistance, provocatively entitled “The End of the Desistance Myth.” Though the article alleged that studies reporting desistance were built upon “bad statistics, bad science, homophobia and transphobia,”¹⁰⁹ it did not

¹⁰⁴ Kaltiala-Heino et al., “Gender Dysphoria in Adolescence,” <https://doi.org/10.2147/AHMT.S135432>.

¹⁰⁵ Social contagion, also known as behavioral contagion, is a type of social influence referring to the propensity for a person to copy a certain behavior of others who are either in the vicinity or to whom he or she has been exposed.

¹⁰⁶ See Kaltiala-Heino et al., “Gender Dysphoria in Adolescence,” <https://doi.org/10.2147/AHMT.S135432> and Derek Glidden et al., “Gender Dysphoria and Autism Spectrum Disorder: A Systematic Review of the Literature,” *Sexual Medicine Reviews* 4, no. 1 (2016), <https://doi.org/10.1016/j.sxmr.2015.10.003>.

¹⁰⁷ Thomas D. Steensma et al., “Desisting and Persisting Gender Dysphoria after Childhood: A Qualitative Follow-Up Study,” *Clinical Child Psychology and Psychiatry* 16, no. 4 (2011), <https://doi.org/10.1177/1359104510378303>.

¹⁰⁸ See, for instance, Devita Singh, “A Follow-Up Study of Boys with Gender Identity Disorder” (PhD Diss., University of Toronto, 2012).

¹⁰⁹ See Brynn Tannehill, “The End of the Desistance Myth,” *HuffPost*, January 1, 2016, https://www.huffpost.com/entry/the-end-of-the-desistance_b_8903690.

produce any substantive evidence to demonstrate this claim. The only meaningful objection seems to be that desistance is closely correlated with the intensity of childhood GD, such that higher-intensity cases are less likely to desist than lower-intensity ones. Though this is no doubt true—and is confirmed in the very studies critiqued by Tannehill—the possibility of desistance remains even in high-intensity cases (albeit with a lower likelihood).

Considerably more contentious with respect to childhood GD is the issue of medical intervention, including the use of puberty blockers and the initiation of hormone therapy as part of treatment programs. In a 2016 paper entitled “To Treat or Not to Treat: Puberty Suppression in Childhood-Onset Gender Dysphoria,” for example, the authors state that the “paucity of published research on the effects of GnRHa [puberty suppressing medication] on health-related outcome measures calls for studies that might help to advance the evidence-based debate on risks and benefits of puberty suppression.”¹¹⁰ However, just two sentences later, the authors conclude that “despite a limited number of studies, the existing literature supports puberty suppression as an early, sufficiently safe, and preventive treatment for gender dysphoria in childhood and adolescence.”¹¹¹ This conclusion is shared by Diane Ehrensaft, Director of Mental Health at San Francisco’s Child and Adolescent Gender Center. The conclusions of the 2016 study and Ehrensaft’s advocacy stand in direct contradiction to studies that demonstrate that children treated with puberty blockers report higher rates of self-harm and suicidality compared to those not so treated.¹¹² Dr. Michael Biggs of Oxford University has spoken out against a comparable study endorsing the use of puberty suppressants published by England’s National Health Service (NHS) and has stated that “puberty blockers exacerbated gender dysphoria. Yet the study has been used to justify rolling out this drug regime to several hundred children aged under 16.”¹¹³ In addition to the complications and side effects of puberty blockers, the popular claim that the effects of hormone therapy are entirely reversible has itself proved tendentious. When asked about this alleged reversibility, Dr. Polly Carmichael, a clinical psychologist who heads a clinic devoted to treating adolescent gender dysphoria, responded saying, “Nothing is completely reversible.”¹¹⁴

More radical transgender advocates today lobby for adolescent independence and affirmative transgender therapy—including medical intervention—for teenagers and

¹¹⁰ Rosalia Costa, Polly Carmichael, and Marco Colizzi, “To Treat or Not to Treat: Puberty Suppression in Childhood-Onset Gender Dysphoria,” *Nature Reviews: Urology* 13, no. 8 (August 2016), <https://doi.org/10.1038/nrurol.2016.128>.

¹¹¹ Ibid.

¹¹² Camilla Tominey and Joani Walsh, “NHS Transgender Clinic Accused of Covering Up Negative Impacts of Puberty Blockers on Children by Oxford Professor,” *Telegraph*, March 7, 2019, <https://www.telegraph.co.uk/news/2019/03/07/nhs-transgender-clinic-accused-covering-negative-impacts-puberty/>.

¹¹³ Ibid.

¹¹⁴ Ibid.

youth struggling with GD without even requiring parental consent. Moreover, some have argued for treating individuals who display indicators of GD and transgenderism at very young ages. Diane Ehrensaft, for instance, contends that “children as young as one year of age are capable of announcing they are transgender, even before they can speak,” further suggesting that a one-year-old girl’s stating “I boy” can be construed as a meaningful indication of gender nonconformity.¹¹⁵

Ehrensaft is not alone in her commitment to radically “affirmative” care. Dr. Johanna Olson-Kennedy of Children’s Hospital Los Angeles is a prominent affirmative care physician and has spoken in the past about radical mastectomy outcomes in girls as young as thirteen. Haci Horváth from the University of California San Francisco writes about Olson-Kennedy’s push for medicalizing young girls diagnosed with GD as follows:

She [Olson-Kennedy] doubled down on this affront to Hippocrates by suggesting that if teen girls later regretted the loss of their breasts, they could “go and get” new breasts, suggesting that breast implants would make them as good as new. There has been a tremendous surge over the past decade in girls and young women presenting to gender clinics (Zucker 2017, Littman 2018), and Olson-Kennedy says she has personally ushered more than 1100 of them into the medicalized trans lifestyle. In a 2018 paper, she recommends referring girls for this “top surgery” first, and only afterwards prescribing testosterone—thus removing the option for what might have been a little more time to think through this irreversible decision (Olson-Kennedy, 2018).¹¹⁶

For young children who display signs of GD, Ehrensaft and Olson-Kennedy support “social transitioning” rather than medicalization—with social transitioning considered a precursor to eventual medical intervention. Social transitioning, which

¹¹⁵ See the 2016 Jon E. Nadherny / Calciano Memorial Youth Symposium, <https://youtu.be/30rEjumFaDY>. The question concerning pre-verbal children begins at 2:05:42 and the response includes the following: “Sometimes kids between the age of one and two with beginning language will say, ‘I boy!’ when you say *girl*. Those two words, ‘I boy,’ that’s not a pre-verbal but an early verbal message. Sometimes there is a tendency to say, ‘Well, honey, no, you’re a girl, because little girls have vaginas and you have a vagina, so you’re a girl.’ And then when they get a little older, you’ll hear them say, ‘Did you not listen to me? I said I am a boy with a vagina.’ But they can’t say that between one and two, but they can show you by what they want to play with and if they feel uncomfortable about how you are responding to them and their gender if you are misgendering them. So you look for those kinds of actions, like tearing a skirt off.”

¹¹⁶ Haci Horváth, “The Theatre of the Body: A Detransitioned Epidemiologist Examines Suicidality, Affirmation, and Transgender Identity,” 4thWaveNow, December 19, 2018, <https://4thwavenow.com/2018/12/19/the-theatre-of-the-body-a-detransitioned-epidemiologist-examines-suicidality-affirmation-and-transgender-identity/>.

can be applied to children of any age (including infants), represents a form of transitioning in which parents and others socialize the child into an alternative gender identity (adjusted name, dress, treatment, etc.).¹¹⁷

This fractious climate has made it exceedingly difficult for parents of GD children to distinguish truth from falsehood or fact from ideology, and the proliferation of transgender affirmative guidelines directed towards educators, counselors, medical professionals, parents, and youth has compounded the already substantial difficulties that families experience when facing a GD diagnosis in their child. Children with GD can exhibit significant “impairment in major areas of functioning, such as social relationships, school, or home life,”¹¹⁸ while adolescents with GD report significantly higher rates of suicidality, psychopathology, self-harm, eating pathologies, poor peer relationships, and higher rates of bullying and social isolation, as well as a greater likelihood of partaking in risky sexual behaviors.¹¹⁹ An ideological program zealously devoted to lowering the possibility of desistance and promoting gender transition obfuscates all these inconvenient facts while selectively marshalling evidence that can be used to encourage gender transition and stifling vital debate before it can even take place. The possibility—indeed, the likelihood—that these children can function in a wholesome, healthy way with who they are biologically is increasingly marginalized and cast as harmful to children.

Autogynephilic gender dysphoria

Coined thirty years ago by Ray Blanchard, the term *autogynephilia* denotes a male (adolescent or adult) who demonstrates a “propensity to be sexually aroused by the thought of himself as a female,” a common symptom in cases of gender identity disorder (GID) and transvestic fetishism. The development of sexual interest during adolescence typically materializes in sexual fantasies or desires directed towards the opposite sex and can involve sexual arousal, desire, and sexual function. The concept of autogynephilia extends this sexual development for non-homosexual males: an autogynephilic male would, in addition to the aforementioned sexual developments, fantasize about embodying women and, in many cases, act out the fetish. That is, he would feel arousal at the thought of dressing like a woman and, at times, possessing female body parts. Ray Blanchard sees this condition as a type of orientation, one that falls along the spectrum of heterosexuality to homosexuality. In this view, autogynephilia is a type of immutable orientation that will continue to some degree as a lifelong condition.

¹¹⁷ Ibid.

¹¹⁸ *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. (DSM-5) (Washington, DC: American Psychiatric Press, 2013).

¹¹⁹ Kaltiala-Heino et al., “Gender Dysphoria in Adolescence,” <https://doi.org/10.2147/AHMT.S135432>.

It should be noted here that our understanding of “orientations” is not firmly established in any field of sexuality. That is to say that although in many cases individuals manifest dominant or exclusive sexual desire for a single sex, the causes behind this phenomenon are not well understood. This is as much the case with same-sex desire as it is with less typical sexual desires and fetishes like autogynephilia. In the case of autogynephilia, the available data and sample sizes complicate the picture, as our scope of understanding is fundamentally limited given the rarity of gender dysphoria and sex reassignment—though in recent years the numbers have increased substantially (which risks obscuring the picture even further by confounding organic occurrences of GD with those contributed to by rising socialization factors). Whatever the case may be, it is fair to conclude that autogynephilia is perhaps the most common underlying condition among males who pursue sex reassignment, and reports show that in recent years, seventy-five percent of male-to-female transsexualism cases in Western countries have involved autogynephilic patients.¹²⁰

Not all of those diagnosed with autogynephilia pursue sex reassignment or express gender dysphoria. In fact, the majority do not, and some with autogynephilia end up marrying and having children. Autogynephilia, like all conditions, exists along a spectrum. Some can suppress the occasional desire to cross-dress, whereas others may engage in infrequent cross-dressing as a sort of release. Other cases include individuals with a higher intensity of fetish. In an article on autogynephilia, Michael Bailey and Ray Blanchard write:

Although many autogynephilic males find discovery of the idea of autogynephilia to be a positive revelation—autogynephilia has been as puzzling to them as it is to you—some others are enraged at the idea. There are two main reasons why some autogynephilic males are in denial. First, they correctly believe that many people find a sexual explanation of gender dysphoria unappealing—discomfort with sexuality is rampant. Second, they find this explanation of their own feelings less satisfying than the standard “woman trapped in man’s body” explanation. This is because autogynephilia is a male trait, and autogynephilia is about wanting to be female.

It is good to be aware of autogynephilia’s controversial status, because transgender activists are often hostile to the idea. You will not learn more about it from the activists. And if your son has frequented internet discussions, he may also resent the idea. *We emphasize that autogynephilia is controversial for social reasons, not for scientific ones. No scientific data have seriously challenged it* (emphasis added).¹²¹

¹²⁰ Bailey and Blanchard, “Gender Dysphoria Is Not One Thing,” <https://4thwavenow.com/2017/12/07/gender-dysphoria-is-not-one-thing/>.

¹²¹ Ibid.

Autogynephilia can present in men with same-sex or opposite-sex desires (though it is more common among non-homosexuals), while other autogynephilic men are bisexual. For men with heterosexual desires, autogynephilic arousal comes from embodying the sexual other. For men with homosexual desires, arousal often involves the idea of being penetrated as a female. Autogynephilia therefore “provides an implicit theory of motivation for the pursuit of sex reassignment by autogynephilic males: It suggests that they seek sex reassignment because they love (i.e., experience attraction, sexual arousal, and comfort from) the prospect of having bodies that resemble women’s bodies and living in the world as women.”¹²²

Charles Moser argues for the possibility of autogynephilia in female subjects as well, that is, women being sexually aroused by their own bodies.¹²³ As a paraphilia, this is certainly not outside the realm of possibility, and both men and women have, at times, reported sexual arousal by seeing themselves nude.

Though the symptoms are understood (albeit controversial), there is no scientific consensus on the cause of either autogynephilia or gender dysphoria. As we have noted, Blanchard, Bailey, Lawrence, and others view autogynephilia as a type of “orientation” akin to other sexual orientations. The late Joseph Nicolosi, however, argued that gender dysphoria is undergirded by a problem of attachment. On this understanding, gender dysphoria emerges in young children who experience trauma and attachment deficiencies at a young age that later materialize at the point of puberty or manifest fully in adulthood. Nicolosi writes:

Experts in the area of childhood gender identity disorder (GID) have found certain patterns in the backgrounds of GID children. A common scenario is an over-involved mother with an *intense, yet insecure attachment* between mother and child (emphasis original). Mothers of GID children usually report high levels of stress during the child’s earliest years.

We often see severe maternal clinical depression during the critical attachment period (birth to age 3) when the child is individuating as a separate person, and when his gender identity is being formed. The mother’s behavior was often highly volatile during this time, which could have been due to a life crisis (such as a marital disruption), or from a deeper psychological problem in the mother herself, i.e., borderline personality disorder, narcissism, or a hysterical personality type.

When the mother is alternately deeply involved in the boy’s life, and then unexpectedly disengaged, the infant child experiences an attachment loss—what we call “abandonment-annihilation trauma.” Some children’s response is

an “imitative identification”—the unconscious idea that “if I *become* Mommy (i.e., become female), then I take Mommy into me and I will never lose her.”

This is the same dynamic that we see in the fetish, where the boy is “taking in a piece of Mommy” (her shoes, her scarf) and developing an intense (and later sexualized) attachment to an object associated with her.¹²⁴

Nicolosi’s therapeutic program focused more on childhood-onset GD cases. However, his theory of GD would also be applicable to adults who live with lingering and unresolved distresses buried beneath the surface (Nicolosi did not seem to distinguish between adult, adolescent, and childhood cases of GD). Although addressing such pain may not succeed in eliminating dysphoric feelings, such feelings would, nonetheless, hopefully become more manageable, thus providing individuals experiencing gender anxieties a way to cope with their gender nonconforming thoughts while potentially mitigating the intensity and frequency of such feelings.

Rapid-onset gender dysphoria

Unlike autogynephilia, rapid-onset gender dysphoria (ROGD) is a relatively recent category constructed in response to a growing phenomenon of sudden expressions of gender discordance. Typically, this sudden onset of dysphoria has been observed among (predominantly) female adolescents and young adults. The most thorough and comprehensive treatment of this phenomenon comes to us in the form of a recent study by Lisa Littman. Littman, a researcher at Brown University, studied parents of children who had expressed sudden gender dysphoria with no preceding history of gender nonconforming expression. In examining their children’s unexpected experience of gender dysphoria, parents described “a process of immersion in social media,” including, *inter alia*, “binge-watching YouTube transition videos and excessive use of Tumblr” prior to the child’s expressing feelings of gender dysphoria.¹²⁵ Critically, Littman’s study describes in detail the power of social influences in stimulating dysphoric attitudes and promoting the idea of gender dysphoria among otherwise non-dysphoric adolescents, teens, and young adults. The stories of rapid-onset GD cases in Littman’s piece include the following:

- A twelve-year-old natal female who was bullied specifically for going through early puberty and the responding parent wrote, “As a result she said

¹²² Joseph Nicolosi, “The ‘Dr. Phil Show’ Explores the Issue of Transgender Children,” Joseph Nicolosi – Reparative Therapy™ (website), May 26, 2015, <https://www.josephnicolosi.com/collection/2015/6/2/the-dr-phil-show-explores-the-issue-of-transgender-children>.

¹²³ Charles Moser, “Autogynephilia in Women,” *Journal of Homosexuality* 56, no. 5 (2009): 539, <https://doi.org/10.1080/00918360903005212>.

she felt fat and hated her breasts.” She learned online that hating your breasts is a sign of being transgender. She edited her diary (by crossing out existing text and writing in new text) to make it appear that she had always felt that she is transgender.

- A fourteen-year-old natal female and three of her natal female friends who were taking group lessons together with a very popular coach. The coach came out as transgender, and within one year, all four students announced they were also transgender.
- A natal female who was traumatized by rape when she was sixteen years old. Before the rape, she was described as a happy girl; after the rape, she became withdrawn and fearful. Several months after the rape, she announced that she was transgender and told her parents that she needed to transition.¹²⁶

These stories describe traumatic encounters and social events that contributed in some direct fashion to an eventual desire to embrace an alternative gender identity. Littman concludes with a few key hypotheses. One is, as we have noted, that social influences—both in person and online—provoke gender dysphoria. Another important hypothesis is that in certain instances, gender dysphoria serves as a maladaptive coping mechanism, much the same way that eating disorders serve as coping mechanisms following acute anxieties, bouts of depression, and traumatic events. In describing this phenomenon, Bailey and Blanchard write:

The subculture that fosters ROGD appears to share aspects with cults. These aspects include expectation of absolute ideological agreement, use of very specific jargon, thinking of the world as “us” versus “them” (even more than typical adolescents do), and encouragement to cut off ties with family and friends who are not “with the program.” It also has uncanny similarities to a very harmful epidemic that occurred a generation ago: the epidemic of false “recovered memories” of childhood sexual abuse and the associated epidemic of multiple personality disorder.¹²⁷

Over eighty percent of rapid-onset GD cases involve females, though it is possible, albeit less common, for men to present with sudden GD as well.¹²⁸ Many of those presenting with rapid-onset GD had previously been diagnosed with at least one

mental health disorder, with several cases of self-harm, sex or gender related disturbances, and family stressors (i.e., death of a parent, parental divorce, etc.).¹²⁹

Littman’s conclusions have not been without controversy. Originally retracted from Brown’s website after publication in August 2018 because of public pressure and outrage from activist corners, Littman’s paper was republished in March 2019 following a secondary review with edits to address concerns raised during the editorial reassessment. Some have characterized Littman’s research and study as “transphobic,” while trans activist and biologist Julia Serano has disputed rapid-onset GD as a category altogether.¹³⁰

Recently, journalist Abigail Shrier built on Littman’s research, authoring a work dedicated to the growing phenomenon of female transitioning entitled *Irreversible Damage: The Transgender Craze Seducing Our Daughters*.¹³¹ In it, she documents the rising rates of female transitioning, rates that have flipped what was once a predominantly male phenomenon into one that is now majority FtM in composition in a number of countries. Gender clinics in Stockholm, Toronto, and Amsterdam all report that their ratios of gender dysphoria have shifted to majority natal female patients in recent years, while US incidences of gender dysphoria went from being forty-six percent natal female in 2016 to seventy percent just one year later.¹³² Shrier details features of female transitioners, the vast majority of whom display no dysphoria in childhood, often come from middle- to upper-middle-class backgrounds, and are heavily influenced by their surroundings, especially social media and trans influencers.¹³³ Prominent trans influencers today command large followings while encouraging social transitioning, donning “binders” (used to suppress breast protrusion), depicting testosterone therapy as cathartic, and advocating deceit in the path of the “greater good” of arriving at one’s true, transitioned self. Along the way, young girls are taught that parental resistance is an indication of hatred and lack of affection or love and that the threat of suicide is an important tool to employ and weaponize when dealing with counselors, teachers, parents, and others who offer anything other than full-throated support.

Many young women today suffer anxieties related to their body image and a pathologizing of feminine norms and features. In such a context, self-harm, depression, and low self-esteem abound, and a desire to abandon the burdens of being a

¹²⁶ Ibid.

¹²⁷ Bailey and Blanchard, “Gender Dysphoria Is Not One Thing,” <https://4thwavenow.com/2017/12/07/gender-dysphoria-is-not-one-thing/>.

¹²⁸ Ibid.

¹²⁹ Littman, “Parent Reports of Adolescents and Young Adults,” <https://doi.org/10.1371/journal.pone.0202330>.

¹³⁰ Julia Serano, “Everything You Need to Know about Rapid Onset Gender Dysphoria,” Medium, August 22, 2018, <https://medium.com/@juliaserano/everything-you-need-to-know-about-rapid-onset-gender-dysphoria-1940b8afdeba>.

¹³¹ Abigail Shrier, *Irreversible Damage: The Transgender Craze Seducing Our Daughters* (n.p.: Regnery Publishing, 2020, Kindle edition).

¹³² Ibid., 31.

¹³³ See *ibid.*, chap. “The Influencers.”

woman can be profoundly persuasive. Shrier quotes therapist Sasha Ayad, whose practice focuses on gender questioning teens, as saying, “A common response that I get from female clients is something along the lines: ‘I don’t know exactly that I want to be a guy. I just know I don’t want to be a girl.’”¹³⁴

C. Transgenderism: Medical Treatments

Among the many troubling practices of gender affirmative therapy is the rush to medical intervention. For children, this begins with puberty suppressants, a step that is itself often preceded by “social transitioning.” Puberty blockers (Gonadotropin Releasing Hormone [GnRH] agonists) are typically administered at the pre- or early pubertal stage (at around nine to thirteen years of age) to suppress puberty as a first step to transitioning to the desired sex. This is followed by cross-sex steroid hormones at fourteen to sixteen years of age.¹³⁵ The use of puberty suppressants is recommended by many gender-affirming physicians and therapists as a temporary step to allow adolescent children more time fully to come to terms with their gender identity. Dr. Rob Garofalo, director of the Lurie Children’s Hospital’s Gender and Sex Development Program, states that puberty blockers “allow these families the opportunity to hit a pause button, to prevent natal puberty [...] until we know that that’s either the right or the wrong direction for their particular child.”¹³⁶ At times, children exhibiting even mild gender dysphoria or expressing nominal gender confusion are encouraged to take puberty blockers as a stopgap measure to prevent normal pubertal development. Medical monitoring and psychotherapy ensue to explore possibilities of living as the other gender and to verify if transitioning is something the child really wants. Transitioning to the opposite sex through hormones (with or without eventual surgery) is less invasive on a body with stunted puberty caused by puberty blockers as compared to a body that has started to develop, or has fully developed, sex characteristics of the original sex.¹³⁷ In this manner, gender affirmative therapy and treatment can serve to promote transgenderism as an eventual outcome, even when it is not in the patient’s best interest. Unsurprisingly, a rising number of adults who were pressured into adolescent transitioning are now

¹³⁴ Ibid., 5.

¹³⁵ Sahar Sadjadi, “The Endocrinologist’s Office—Puberty Suppression: Saving Children from a Natural Disaster?,” *Journal of Medical Humanities* 34, no. 2 (2013), <https://doi.org/10.1007/s10912-013-9228-6>.

¹³⁶ Priyanka Boghani, “When Transgender Kids Transition, Medical Risks Are Both Known and Unknown,” PBS, June 30, 2015, <https://www.pbs.org/wgbh/frontline/article/when-transgender-kids-transition-medical-risks-are-both-known-and-unknown/>.

¹³⁷ S. Giordano, “Lives in a Chiaroscuro: Should We Suspend the Puberty of Children with Gender Identity Disorder?,” *Journal of Medical Ethics* 34, no. 8 (2008), <https://doi.org/10.1136/jme.2007.021097>.

going public with their stories of trauma, anxiety, and malpractice by medical practitioners and therapists.¹³⁸

Although hormone therapy as a secondary step following puberty suppression is often presented as only a “possibility,” in most cases it turns out to be an eventuality. Dr. Norman Spack of Boston Children’s Hospital reports having never seen an adolescent decline hormone therapy after GD diagnosis and the use of puberty suppression.¹³⁹ Hormone therapy involves the administration of testosterone to natal females and estrogen to natal males. With puberty now blocked and the concomitant gender-specific physical traits prevented from manifestation, hormone therapy proceeds to stimulate opposite-sex gender development. For women, this means an increase in facial and body hair, more severe acne, growth in muscle mass, and the cessation of menses. For men, hormone treatment results in reduced facial hair and slowed body hair growth, the development of breasts, and reduction in testicular size and function.¹⁴⁰ During their years on puberty blockers, adolescents’ genitals and reproductive tracts remain in a pre- or early pubertal state, and the pubertal growth spurt is suppressed. If followed by cross-sex hormones, the possibility of reproduction is eliminated.¹⁴¹

The final possible step is surgical intervention. Sex reassignment surgery—sometimes referred to as “sex confirmation surgery”—begins, for men, with an orchiectomy, a procedure that involves the removal of the testicles. Surgeons make an incision in the middle of the scrotum, after which they cut the spermatic cord and remove the testicles. This effectively eliminates testosterone production for men and sets the groundwork for a second surgery, which is either a vulvoplasty or a vaginoplasty. A vulvoplasty is a procedure in which a surgeon uses the skin and tissue of the penis to begin fashioning a synthetic vulva, the outside part of the vagina. A vulvoplasty consists of the following steps: the head of the penis is used to construct a clitoris; the skin from the penile canal and scrotum is used to fashion the labia; and, finally, an opening is created for urination (the urethra).¹⁴² An alternative to a vulvoplasty is a vaginoplasty, which involves the fashioning of a full vagina from penile skin and tissue. Patients may experience an orgasm through clitoral stimulation following a vulvoplasty, but they will not be able to participate in vaginal intercourse. A vaginoplasty, on the other hand, allows for sexual intercourse

¹³⁸ See, for instance, the recently formed Detransition Advocacy Network, <https://www.detransadv.com/>.

¹³⁹ Alix Spiegel, “Q&A: Doctors on Puberty-Delaying Treatments,” NPR, May 8, 2008, <https://www.npr.org/templates/story/story.php?storyId=90234780>.

¹⁴⁰ See Cécile A. Unger, “Hormone Therapy for Transgender Patients,” *Translational Andrology and Urology* 5, no. 6 (2016), <https://doi.org/10.21037/tau.2016.09.04>.

¹⁴¹ Sadjadi, “Endocrinologist’s Office,” <https://doi.org/10.1007/s10912-013-9228-6>.

¹⁴² “Transfeminine Bottom Surgery,” University of Utah Health, <https://healthcare.utah.edu/transgender-health/gender-affirmation-surgery/vaginoplasty.php>.

and is thus regarded as a more complete and satisfying form of transition for male-to-female GD patients.

In cases of female-to-male transition, medical intervention involves the reduction and reshaping of the breasts and the removal of the uterus and ovaries. The surgical options for FtM transsexuals are generally bifurcated into what are referred to as “top surgeries” (involving the chest) and “bottom surgeries.” Top surgeries involve reducing breast size and contouring the chest to make it appear more masculine. Of the two sets of procedures, top surgeries are far more common owing to the lower cost and relatively higher rate of success. Bottom surgeries are considerably costlier and more complicated and take place over the course of multiple procedures that can span months, if not years. The principal bottom surgery for FtM patients is a phalloplasty, in which a “neophallus,” or artificial penis, is molded using forearm tissue (or other parts of the body) and then surgically attached in a manner that provides for standing urination. Some FtM patients, following a phalloplasty, elect to undergo yet another surgery to install a penile implant that allows for the appearance of an erection through the use either of manual inflation or of non-inflatable rigid models that are manually moved to mimic the appearance of an erection. The complete set of potential bottom surgeries for a female-to-male patient includes

- a hysterectomy (to remove the uterus)
- an oophorectomy (to remove the ovaries)
- a vaginectomy or vaginal mucosal ablation (to remove or partially remove the vagina)
- a phalloplasty (to turn a flap of donor skin into a phallus)
- a scrotoectomy (to turn the labia majora into a scrotum, either with or without testicular implants)
- a urethroplasty (to lengthen and connect the urethra inside the new phallus)
- a glansplasty (to sculpt the appearance of a penile head)
- a penile implant to allow for an erection.¹⁴³

Bottom surgeries are highly volatile and are perhaps the riskiest of the aforementioned surgical options. Phalloplasties, for instance, have been described as “one of the most complex reconstructions that plastic surgeons are called upon to perform”¹⁴⁴ and are fraught with risk due to uncertainties surrounding flap survival and common functional failures. Even relatively successful cases cannot guarantee the rigidity

¹⁴³ Corinne O’Keefe Osborn, “Phalloplasty: Gender Confirmation Surgery Recovery, Complications,” Healthline, <https://www.healthline.com/health/transgender/phalloplasty>.

¹⁴⁴ Mamoon Rashid and Muhammad Sarmad Tamimy, “Phalloplasty: The Dream and the Reality,” *Indian Journal of Plastic Surgery* 46, no. 2 (2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3901910/>.

required for successful sexual intercourse, leading one set of experts to describe the practice of phalloplasty as assuming “Herculean dimensions.”¹⁴⁵

The complications and side effects of the aforementioned treatments are non-trivial and are rarely disclosed in full to parents, adolescents, and adults considering medical intervention.¹⁴⁶ Publicly available literature on trans-affirming sites glosses over the possibility of unfavorable consequences or of medical outcomes that introduce pathological changes or previously non-existent ailments. In the interest of disclosing some of these outcomes, we turn our attention to medical complications of transition treatments in the following section.

D. Complications of Medical Treatments

Puberty blockers

In general, puberty blockers used on children are medically indicated for the treatment of a condition known as precocious puberty, in which an early secretion of pubertal hormones brings about all the manifestations of puberty at an earlier age than usual. Such puberty blockers aid in delaying puberty until an appropriate age. However, there is no way to infer that such blockers are safe in physiologically normal children who suffer from gender dysphoria.¹⁴⁷

In the United States, the use of puberty blockers for the treatment of gender dysphoria has not yet been approved by the FDA (although their use for the treatment of precocious puberty, prostate cancer, and other conditions has been). The use of puberty blockers for GD is considered “off-label,” meaning that physicians are legally permitted to *use* such treatments on children with GD but are barred from *marketing* them for the treatment of GD due to the lack of FDA approval.¹⁴⁸ The use of puberty blockers for the purpose of treating GD has not yet been proved in clinical trials to be safe and effective. There are many claims that the effects of puberty blockers are reversible.¹⁴⁹ It is argued that puberty suppression can

¹⁴⁵ Ibid.

¹⁴⁶ See Bruce Ashford, “The Ugly Truth about Sex Reassignment the Transgender Lobby Doesn’t Want You to Know,” *Daily Signal*, October 30, 2017, <https://www.dailysignal.com/2017/10/30/ugly-truth-sex-reassignment-transgender-lobby-doesnt-want-know/> and Kerry Smith, “Testosterone & Young Females: What Is Known about Lifelong Effects?,” 4thWave Now, June 18, 2018, <https://4thwavenow.com/2018/06/18/testosterone-young-females-what-is-known-about-lifelong-effects/>.

¹⁴⁷ Paul W. Hruz et al., “Growing Pains: Problems with Puberty Suppression in Treating Gender Dysphoria,” *New Atlantis*, no. 52 (2017), <https://www.thenewatlantis.com/publications/growing-pains>.

¹⁴⁸ Ibid.

¹⁴⁹ See Henriette A. Delemarre-van de Waal and Peggy T. Cohen-Kettenis, “Clinical Management of Gender Identity Disorder in Adolescents: A Protocol on Psychological and

"give adolescents, together with the attending health professional, more time to explore their gender identity, without the distress of the developing secondary sex characteristics. The precision of the diagnosis may thus be improved."¹⁵⁰

Some questions worth asking are the following: Is it not to be expected that the development of natural sex characteristics would contribute to an organic consolidation of one's gender identity, as opposed to interfering with one's exploration of it? Would not interfering with normal pubertal development possibly influence the gender identity of the child by further hindering his or her gender identity development in line with his or her biological sex, as opposed to allowing for a more accurate diagnosis of gender identity? With puberty blockers, the natural sequence of development is already disrupted. With normal puberty, there is a complex relationship between physiological, psychological, and social factors that shape one's gender identity, particularly when the physical body matures and sexually differentiates. Would such development resume in a normal fashion after puberty blockers are discontinued? And, what are the psychological consequences that arise in children with gender dysphoria whose puberty has been suppressed for some time and who later come to identify with their natal biological sex?

There are virtually no published studies of adolescents who have discontinued use of puberty blockers and then resumed the normal pubertal development process typical for their sex. Most adolescents studied generally go from suppressed puberty to cross-sex hormones later on, bypassing the most essential step of sexual maturation, the maturation of one's reproductive organs (which, in some cases, may eventually even be removed altogether). Infertility is therefore one of the major side effects of puberty suppression. The absence of a robust public debate and discussion over sterilizing children in the context of "affirmative therapy" programs is striking to say the least. For any other group of children, an intervention bearing the same degree of medical consequence would be discussed extensively and would include ethics review boards and committees alongside substantial policy debates foregrounding the implications for children in school and the like.¹⁵¹ On this curious,

Paediatric Endocrinology Aspects," *European Journal of Endocrinology* 155 (2006): S133, <https://doi.org/10.1530/eje.1.02231>; Freda Savana, "Looking at Suppressing Puberty for Transgender Kids," *Intelligencer*, March 8, 2016, <https://www.ksl.com/article/38810953/looking-at-suppressing-puberty-for-transgender-kids>; Jenny Fernandez, "Norman Spack: Saving Transgender Lives," April 24, 2015, <https://thriving.childrenshospital.org/norman-spack-saving-transgender-lives/>; Laura Kuper, "Puberty Blocking Medications: Clinical Research Review," IMPACT: The LGBT Health and Development Program, 2014, <http://impactprogram.org/wp-content/uploads/2014/12/Kuper-2014-Puberty-Blockers-Clinical-Research-Review.pdf>.

¹⁵⁰ Peggy T. Cohen-Kettenis et al., "The Treatment of Adolescent Transsexuals: Changing Insights," *Journal of Sexual Medicine* 5, no. 8 (2008), <https://doi.org/10.1111/j.1743-6109.2008.00870.x>.

¹⁵¹ See Sadjadi, "Endocrinologist's Office," 259, <https://doi.org/10.1007/s10912-013-9228-6>.

not to mention worrisome, lack of debate, medical anthropologist Sahar Sadjadi writes:

Needless to say, children are not legally capable of consent, and 9–10-year-olds are not capable of understanding all the health consequences of the treatment. Parents are asked to make life decisions on issues as critical as fertility for young children. Can they make an informed decision and evaluate benefits vis-à-vis risks when confronted with such horrendous forecasts for their children?¹⁵²

We also have no data concerning the development of primary and secondary sex characteristics in adolescents whose puberty has been artificially suppressed before or at the point of puberty. Hence, there is no rigorous scientific data to support the claim that medical intervention of any sort, including puberty suppression, is reversible.

One question that arises from all this is, Do such treatments contribute to the persistence of gender dysphoria in adolescents who might otherwise have resolved their feelings of belonging to the opposite sex? As mentioned earlier, most children who are diagnosed with gender dysphoria eventually grow out of it. The fact that cross-gender identification persists for virtually all those who undergo puberty suppression raises the question whether such treatments may, in fact, actively increase the likelihood of persisting cross-gender identification. In this vein, Michelle Cretella of the American College of Pediatrics writes:

There is an obvious self-fulfilling nature to encouraging a young child with GD to socially impersonate the opposite sex and then instituting pubertal suppression. Purely from a social learning point of view, the repeated behavior of impersonating and being treated as the opposite sex will make identity alignment with the child's biologic sex less likely. This, together with the suppression of puberty that prevents further endogenous masculinization or feminization of the entire body and brain, causes the child to remain either a gender nonconforming pre-pubertal boy disguised as a pre-pubertal girl, or the reverse. Since their peers develop normally into young men or young women, these children are left psychosocially isolated. They will be less able to identify as being the biological male or female they actually are. A protocol of impersonation and pubertal suppression that sets into motion a single inevitable outcome (transgender identification) that requires lifelong use of toxic synthetic hormones, resulting in infertility, is neither fully reversible nor harmless.¹⁵³

¹⁵² Ibid.

¹⁵³ "Gender Dysphoria in Children," American College of Pediatricians, November 2018, <https://acped.org/position-statements/gender-dysphoria-in-children>.

Cross-sex hormones

A 2018 study carried out by Kaiser Permanente Medical Centers in Georgia and California followed up 2,842 transsexual women and 2,118 transsexual men who had received hormonal treatment.¹⁵⁴ Authors found a link between cross-sex hormone use in transsexual women and an increase in vascular side effects such as stroke and venous thromboembolism (VTE), that is, the formation of venous blood clots. Results of the study show that rates of VTE in transsexual women were nearly twice as high as those among cisgender men and women, and the rates of stroke and heart attack among transsexual women were eighty to ninety percent higher than those observed in cisgender women but similar to the rates found in cisgender men. The increase in the rates of VTE and stroke was more noticeable several years after the initiation of estrogen therapy. The evidence was insufficient to allow conclusions regarding risk among trans men participants.

Another study¹⁵⁵ showed that, after an average of ten years of cross-sex hormone treatment, a substantial number of transsexual women suffered from osteoporosis at the lumbar spine and distal arm, and twelve percent of transsexual women experienced thromboembolic and/or other cardiovascular events during hormone treatment, possibly related to older age, estrogen treatment, and lifestyle factors.

As for hormone-related cancers in transgender individuals, case reports of trans women diagnosed after the initiation of medical or surgical “gender affirmation” include cancers of the breast and prostate, prolactinomas (a type of pituitary gland tumor), and meningiomas (a type of brain tumor). In transsexual men, published case reports describe cancers of the breast, ovaries, cervix, vagina, and uterus.¹⁵⁶ These reports remain sparse, and large studies on the proper incidence of such malignancies in these patient populations remain to be carried out.

As for children, those who transition require cross-sex hormones for significantly longer periods of time as compared to adults. Consequently, they may be “more likely to experience physiologically theoretical though rarely observed morbidities in adults.”¹⁵⁷ Hence, boys placed on estrogen treatment may be at a higher risk of developing VTE, cardiovascular disease, weight gain, high blood fat levels and blood pressure, decreased glucose tolerance, gallbladder disease, and breast

¹⁵⁴ Darios Getahun et al., “Cross-Sex Hormones and Acute Cardiovascular Events in Transgender Persons: A Cohort Study,” *Annals of Internal Medicine* 169, no. 4 (2018), <https://doi.org/10.7326/M17-2785>.

¹⁵⁵ Katrien Wierckx et al., “Long-Term Evaluation of Cross-Sex Hormone Treatment in Transsexual Persons,” *Journal of Sexual Medicine* 9, no. 10 (2012), <https://doi.org/10.1111/j.1743-6109.2012.02876.x>.

¹⁵⁶ Haley Braun et al., “Cancer in Transgender People: Evidence and Methodological Considerations,” *Epidemiologic Reviews* 39, no. 1 (2017), <https://doi.org/10.1093/epirev/mxw003>.

¹⁵⁷ “Gender Dysphoria in Children,” American College of Pediatricians, <https://acped.org/position-statements/gender-dysphoria-in-children>.

cancer.¹⁵⁸ Similarly, girls receiving testosterone may experience a higher risk for elevated blood cholesterol levels, liver damage, increased blood viscosity and red cell count, and an increased risk of sleep apnea, insulin resistance, and diabetes, as well as unknown effects on breast, uterine, and ovarian tissues.¹⁵⁹

Sex reassignment

One of the most robust studies on sex reassignment comes from Sweden, where a nationwide population-based, long-term follow-up study of sex-reassigned transsexual persons was published in 2011.¹⁶⁰ The study followed 324 sex-reassigned persons (191 male-to-females and 133 female-to-males) in Sweden between the years 1973 and 2003. This study found that for sex-reassigned transsexual individuals compared to a healthy control population, there are substantially higher rates of overall mortality, death from cardiovascular disease¹⁶¹ and suicide, suicide attempts, and psychiatric hospitalizations. Authors of the paper argue that even though surgery and hormonal therapy may alleviate gender dysphoria, they are apparently not sufficient to remedy the high rates of morbidity and mortality found among transsexual persons.

Mortality from suicide was strikingly high among sex-reassigned persons (19.1 times increased risk), even after adjustment for prior psychiatric morbidity. In line with this reality, sex-reassigned persons were found to be at an increased risk for suicide attempts (4.9 times more likely). In-patient care for psychiatric disorders was significantly more common among sex-reassigned persons than among matched controls, both before and after sex reassignment, and the authors recommend that there is a need to identify and treat co-occurring psychiatric morbidity in transsexual persons not only before but also after sex reassignment.

¹⁵⁸ Jamie Feldman et al., “Priorities for Transgender Medical and Health Care Research,” *Current Opinion in Endocrinology, Diabetes and Obesity* 23, no. 2 (2016), <https://doi.org/10.1097/MED.0000000000000231>. See also Eva Moore et al., “Endocrine Treatment of Transsexual People: A Review of Treatment Regimens, Outcomes, and Adverse Effects,” *Journal of Clinical Endocrinology and Metabolism* 88, no. 8 (2003), <https://doi.org/10.1210/jc.2002-021967>.

¹⁵⁹ See Feldman et al., “Priorities” and Moore et al., “Endocrine Treatment” from previous note.

¹⁶⁰ Cecelia Dhejne et al., “Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden,” *PLOS ONE* 6, no. 2 (2011), <https://doi.org/10.1371/journal.pone.0016885>.

¹⁶¹ Mortality caused by cardiovascular disease was significantly increased among sex reassigned individuals, but the authors argue that these results should be interpreted with caution owing to the low number of events. Comparison to other studies was inconclusive on account of sparse data. Also, as the authors point out, “smoking was in one study reported [at a rate of] almost 50% by the male-to-females and almost 20% by female-to-males. It is also possible that transsexual persons avoid the health care system due to a presumed risk of being discriminated [against].” For more detail, see *ibid*.

A 2001 study of 392 MtF and 123 FtM transgender individuals found that sixty-two percent of MtF and fifty-five percent of FtM subjects suffered from depression, while thirty-two percent of each population had attempted suicide.¹⁶² Similarly, in 2009, Kuhn et al. found considerably lower general health and general life satisfaction among fifty-two MtF and three FtM transsexuals a full fifteen years after sex reassignment surgery as compared to controls.¹⁶³

A 2019 longitudinal study from Sweden by Bränström and Pachankis published in the *American Journal of Psychiatry* followed up 2,679 individuals who received a diagnosis of gender incongruence (that is, transsexualism or gender identity disorder) between 2005 and 2015.¹⁶⁴ Compared to the general population, individuals with a gender incongruence diagnosis were around six times more likely to have had a healthcare visit for mood and anxiety disorders, more than three times as likely to have received prescriptions for antidepressants and anti-anxiety medications, and more than six times as likely to have been hospitalized after a suicide attempt. Increased time since last gender reassignment surgery was significantly associated with reduced mental health treatment (adjusted odds ratio = 0.92, 95% CI = 0.87–0.98). This led the authors to conclude that such data lends support to providing gender reassignment surgeries to transgender individuals who seek them.

Subsequent to the study's publication, however, multiple clinicians wrote letters to the editor of the journal criticizing the authors' flawed methodology and cherry-picking of data in order to arrive at the desired conclusions. One such letter was authored by Van Mol, Laidlaw, Grossman, and Paul McHugh (whom we have encountered earlier).¹⁶⁵ This led the journal to seek statistical consultations, the results of which were presented to the study's authors, who concurred with many of the points raised. Upon request, a reanalysis was conducted to compare outcomes between individuals diagnosed with gender incongruence who had received gender reassignment surgeries and those diagnosed with gender incongruence who had not. The results demonstrated no advantage of surgery in relation to subsequent mood or

anxiety disorder-related health care visits, prescriptions, or hospitalizations following suicide attempts for that cohort. Given that the study used neither a prospective cohort design nor a randomized controlled trial design, the authors themselves deemed their original conclusion—namely, that “the longitudinal association between gender-affirming surgery and lower use of mental health treatment lends support to the decision to provide gender-affirming surgeries to transgender individuals who seek them”—to be too strong. All this led the *American Journal of Psychiatry* to issue a major correction and the authors of the study to retract their conclusions. In short, the Bränström study reanalysis demonstrated that neither gender-affirming hormone treatment nor gender-affirming surgery reduced the need of transgender-identifying individuals for mental health services.

Cited in the letter by Van Mol et al. was the Swedish study by Dhejne et al., which employed population controls matched by birth year, birth sex, and reassigned sex. A follow-up time beyond ten years revealed that the sex-reassigned group had nineteen times the rate of completed suicides and nearly three times the rate of all-cause mortality and inpatient psychiatric care compared to the general population, as outlined previously.

The foregoing considerations reveal that sex reassignment alone does not provide individuals with a level of mental health similar to that of the general population (as opposed to proving that sex reassignment positively yields an *increased* risk of suicide or other psychological morbidities). A 2008 study from Minnesota published in the *Journal of LGBT Health* found that discrimination and social prejudice do not account for the mental health discrepancies between LGBT-identified individuals and the heterosexual population.¹⁶⁶ For transgender individuals, there is a link to underlying trauma that may have contributed to their gender dysphoria and/or subsequent adult transgender lifestyle and conditions. The Minnesota study examined the extent to which a recent experience of a major discriminatory event may contribute to poor mental health among LGBT persons. Researchers included 472 individuals who identify as part of the LGBT community; as a control group, they included 7,412 individuals who identify as heterosexual. The study finds that

[c]ompared to heterosexuals, LGBT individuals had poorer mental health, with higher levels of psychological distress, greater likelihood of having a diagnosis of depression or anxiety, greater perceived mental health needs, and greater use of mental health services, as well as more substance use, with higher levels of binge drinking, greater likelihood of being a smoker, and greater number of

¹⁶² Kristen Clements-Nolle et al., “HIV Prevalence, Risk Behaviors, Health Care Use, and Mental Health Status of Transgender Persons: Implications for Public Health Intervention,” *American Journal of Public Health* 91, no. 6 (2001), <https://doi.org/10.2105/ajph.91.6.915>.

¹⁶³ Annette Kuhn et al., “Quality of Life 15 Years after Sex Reassignment Surgery for Transsexualism,” *Fertility and Sterility* 92, no. 5 (2009), <https://doi.org/10.1016/j.fertnstert.2008.08.126>.

¹⁶⁴ Richard Bränström and John E. Pachankis, “Reduction in Mental Health Treatment Utilization among Transgender Individuals after Gender-Affirming Surgeries: A Total Population Study,” *American Journal of Psychiatry* 177, no. 8 (August 1, 2020), <https://doi.org/10.1176/appi.ajp.2019.19010080>.

¹⁶⁵ Andre Van Mol et al., “Gender-Affirmation Surgery Conclusion Lacks Evidence,” *American Journal of Psychiatry* 177, no. 8 (August 1, 2020), <https://doi.org/10.1176/appi.ajp.2020.19111130>.

¹⁶⁶ Diana Burgess et al., “Effects of Perceived Discrimination on Mental Health and Mental Health Services Utilization among Gay, Lesbian, Bisexual and Transgender Persons,” *Journal of LGBT Health Research* 3, no. 4 (2007), <https://doi.org/10.1080/15574090802226626>.

cigarettes smoked per day. They were more likely to report unmet mental health care needs. LGBT individuals were also more likely to report having experienced a major incident of discrimination over the past year than heterosexual individuals.¹⁶⁷

Later in the study, they remark that “statistically adjusting for discrimination did not significantly reduce mental health disparities between heterosexual and LGBT persons.”¹⁶⁸ Now, some might object that this study was conducted in the relatively more conservative United States, where a higher amount of discrimination might be thought to occur as compared to other, more liberal Western societies. However, we can also point to two very recent (2017 and 2018) studies from Sweden, a country with an “international reputation for heeding the human rights of non-heterosexual people.”¹⁶⁹ Both studies reveal a similar trend. In one study, researchers found a “significantly elevated prevalence of high-risk alcohol use, cannabis use, and daily tobacco smoking among sexual minorities compared to heterosexuals. Further,” the report continues, “these substantial disparities in substance use more often co-occurred with psychological distress among sexual minorities than among heterosexuals.”¹⁷⁰ The study also remarks that “the elevated risk of co-occurring psychological distress and substance use was most notable among gay men relative to heterosexual men (adjusted odds ratio [AOR] = 2.65, CI 1.98, 3.55) [i.e., 2.65 times more elevated] and bisexual women relative to heterosexual women (AOR = 3.01, CI 2.43, 3.72) [i.e., three times more elevated].”¹⁷¹ The study concluded that “experiences of discrimination, victimization, and social isolation partially explain the sexual orientation disparity in these co-occurring problems”¹⁷²—but, significantly, only partially. In the second study, researchers affirm that “psychosocial experiences may be insufficient to explain and understand health inequalities by sexual orientation in a reputedly ‘gay friendly’ setting.”¹⁷³

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ See Per E. Gustafsson, Ida Linander, and Paola A. Mosquera, “Embodying Pervasive Discrimination: A Decomposition of Sexual Orientation Inequalities in Health in a Population-Based Cross-Sectional Study in Northern Sweden,” *International Journal for Equity in Health* 16, article no. 22 (2017), <https://doi.org/10.1186/s12939-017-0522-1>.

¹⁷⁰ Richard Bränström and John E. Pachankis, “Sexual Orientation Disparities in the Co-occurrence of Substance Use and Psychological Distress: A National Population-Based Study (2008–2015),” *Social Psychiatry and Psychiatric Epidemiology* 53, no. 4 (2018): 409, <https://doi.org/10.1007/s00127-018-1491-4>.

¹⁷¹ Ibid., 403.

¹⁷² Ibid., 409.

¹⁷³ Gustafsson et al., “Embodying Pervasive Discrimination,” <https://doi.org/10.1186/s12939-017-0522-1>.

E. Transgender Regret and Success

As a sociological phenomenon inclusive of significant medical intervention, transgenderism has only a brief history. There is no historical precedent for drastic surgical changes akin to what we are witnessing today and certainly no historical record for hormone therapy being administered except in the most limited cases of medical necessity. Accordingly, the data related to post-operative and post-medicalized outcomes has only recently been subjected to formal study and examination, though even this is limited and there is much left to be done.

One such area has been that of post-transition regret. A number of articles have appeared online detailing the internal anguish of transitioning, the social factors that apply pressure on individuals struggling with gender dysphoria (including online “affirmative” forums), and post-transition remorse, depression, and general feelings of unhappiness. Lily Maynard (a pseudonym) is one such figure who has become prominent in shedding light on the problems of transgender ideology. Although Maynard herself never transitioned, her daughter, Jessie, did at the age of fifteen, only to detransition years later. Maynard writes an account of the transition and subsequent detransition entitled “A Mum’s Voyage through Transtopia.”¹⁷⁴ There are a number of important anecdotes in Maynard’s retelling, but one critical one is how her daughter felt submerged in a particular ideological space, encouraged by friends she had made on trans and gender nonconforming forums, and that all these factors served to intensify her feelings of “being a boy” instead of finding peace and comfort in the female body in which she had been born.

A recent site dedicated to trans remorse is entitled “Sex Change Regret.” Run by Walt Heyer (a detransitioned natal male), the site aims to expose readers to the reality of post-transition regret and to provide resources for those who find themselves in the same boat but do not understand how to revert to the person they once were. A review by the University of Birmingham’s Aggressive Research Intelligence Facility (ARIF) of more than “100 international medical studies of post-operative transsexuals” found “no robust scientific evidence that gender reassignment surgery is clinically effective.”¹⁷⁵ In addition to the inefficacy of surgical intervention, ARIF also highlighted how post-operative reporting is skewed to suggest beneficial outcomes. One particular domain where this imprecision comes into focus is the dropout rate of those tracked following sex reassignment. For example, in one five-year study, nearly five hundred people dropped out of a study of 727

¹⁷⁴ Lily Maynard, “A Mum’s Voyage through Transtopia: A Tale of Love and Desistance,” 4thWaveNow, December 17, 2016, <https://4thwavenow.com/2016/12/17/a-mums-voyage-through-transtopia-helps-her-daughter-desist/>.

¹⁷⁵ David Batty, “Sex Changes Are Not Effective, Say Researchers,” *Guardian*, July 30, 2004, <https://www.theguardian.com/society/2004/jul/30/health.mentalhealth>.

post-operative transsexuals.¹⁷⁶ The growing specter of regret, complications, underlying psychiatric disorders (that are not and cannot be treated by heavy surgical intervention), and more is increasingly becoming a part of the public transgender conversation. In September 2018, Russia Today aired a documentary entitled “I Want My Sex Back: Transgender People Who Regretted Changing Sex.”¹⁷⁷ The documentary focuses on the life of Heyer as well as two others who had undergone surgical transition but did not find comfort in the decision or the peace they had been seeking.

Ryan Anderson’s recent work *When Harry Became Sally: Responding to the Transgender Moment* includes an entire chapter dedicated to telling the story of “detransitioners.”¹⁷⁸ Anderson mentions a number of stories in the chapter, including that of Ria Cooper, who underwent a sex change operation at the age of seventeen. At the time, the surgery was a matter of some controversy given Cooper’s age; however, it was reported that he had undergone a “thorough psychological evaluation” as well as counseling, thus reassuring those who were concerned about the appropriateness of such a heavy-handed procedure for someone so young. Within a year of living as a woman, Cooper attempted to commit suicide twice and ultimately detransitioned back to his natal sex.¹⁷⁹ Anderson documents a number of other stories, with common themes related to social pressures, the role of online material and interactive forums telling individuals that transitioning is necessary for those who experience gender atypical feelings, and the contribution of mental health practitioners, diverse medical personnel (pediatricians, general practice physicians, etc.), and school administrators (such as counselors and the like) in encouraging otherwise unsure individuals that they should consider and pursue gender transition.

However, this is not the whole story, and not all express regret following a transition. Many advocates of transgenderism claim that the process is lifesaving, with many prominent activists including Chaz Bono, Jazz Jennings, and, more recently, Caitlyn Jenner. Though these figures largely make up the face of the trans movement in America, other transitioned individuals write about the importance of transitioning—and, in some cases, the necessity of sex reassignment—to their mental health. One such figure is Claire Renee Kohner, a prominent MtF who has been featured on HuffPost Live and has written about transgenderism and her story for the *New York Times*, the *Advocate*, *Bustle*, and other publications. Kohner’s story is an important one in that it does not whitewash the difficulties of transitioning, which can often involve serious complications. In a response to the question “What are the most serious negative side effects of gender reassignment surgeries?” Kohner narrates:

¹⁷⁶ Ibid.

¹⁷⁷ See “I Want My Sex Back: Transgender People Who Regretted Changing Sex,” RTD Documentary Channel, September 10, 2018, <https://rtd.rt.com/films/i-want-my-sex-back/>.

¹⁷⁸ See Anderson, *When Harry Became Sally*, chap. 3.

¹⁷⁹ Ibid.

I nearly died.

I remember sitting in the examination room of my chosen GRS doctor and going through the risks; as he listed off what could go wrong, I was happily daydreaming about my upcoming surgery and willfully nodding my head, ignoring what he was saying because, “Hey! My doctor is one of the top GRS surgeons in the US, what could possibly go wrong?”

Who knew that I’d eventually be answering this question as what’s considered a “worst case scenario” patient?

Out of respect for everyone involved, names of people and cities will be withheld from this post. I also want to make sure people reading this understand that I have no regrets and what happened to me will probably not happen to you; however, you need to pay attention to what the risks involved are and how you can deal with them should they arise.

My other disclaimer is to those who would use my story as a means to deter anyone of us from seeking and having the surgeries we need in order to stay alive. This is not some cautionary tale but more of a “please know that this is a major surgery and that all surgeries come with a risk” tale.

[. . .]

It was a typical operation that took ten hours in the operating room and a couple more in the recovery room; nothing was out of the ordinary and for all intents and purposes, it was a successful procedure.

By the second day I was eating solid food, by the third I was walking, and by the 12th of October, I was to be released to a hotel near the hospital for another week to keep me near the facility should something go wrong.

I was 600 miles from home, but my wife of 22 years was by my side. I slept most of the days and changed my bandages. Around the 14th of October we were noticing a significant amount of clear liquid draining from one of my sutures; I should also note that every time I took a shower, I would faint.

I was scheduled for a checkup on the 16th of October and was due to go home on the 19th. At my follow-up appointment, the doctor noticed that one of my sutures was opening up, but given its location to the frenulum, this was common.

The 19th of October arrived and with one quick final checkup at the hospital, I could go home. The suture had opened a little bit further by the 19th and I was running a fever when I arrived. There seemed to be a level of concern by the doctor and his staff, and within an hour I was heading back in to the operating room for a quick mend and I was told I would be heading home on Saturday, the 20th of October.

I woke up in the ICU with a temperature of 104 degrees surrounded by a team of doctors. Still Friday the 19th, a pick line was inserted into my jugular vein so they could inject morphine straight into my bloodstream. My

consciousness and pain were being regulated until they could figure out what was going on.

I was awakened around 5 p.m. on the 19th and was told they had to go back in to figure out what the next steps were. I signed the release forms, was injected with morphine and woke up hours later with the team from infectious diseases, my doctor, a gastrointestinal specialist and a doctor that specializes in cardiovascular systems present.

My wife was crying and I asked if I was going to die. Every doctor was silent, then I got the “we are doing everything we can” speech. Still, no one knew what was wrong and I’d have to go in for round three. I was given all of my outcome options—none of them good—and was asked if I wanted to see a chaplain. I remember hearing the nurse say, “Can I give her more morphine?” and the doctor replied, “Not till she signs these waivers.”

I woke up Saturday morning and said to my wife, “It’s time for you to go home.” We have three kids and the household was deteriorating by the amount of stress being put on our kids by neither of us being there. Grandma was babysitting and she could no longer deal with what was happening. This meant I’d be alone in the hospital 600 miles from home. DO NOT EVER DO THIS!!

I had three surgeries that Friday and a surgery on Saturday, Sunday, Monday, Tuesday and Wednesday of that week. Yippee! I got to skip a Thursday surgery but was back in on Friday, the 26th.

[. . .]

At the end of the day, I spent a total of seven weeks in the hospital, I walk with a cane, have lost my sense of taste and I’m going through EMDR therapy for the trauma I experienced.¹⁸⁰

Another transgender individual who has written about his experience is Todd Whitworth, an FtM who describes his transition and life in the following terms:

I take self-administered testosterone injections intramuscularly every two weeks. I’ve had a full hysterectomy and oophorectomy including removal of the cervix. Additionally, I’ve had a double mastectomy with chest contouring so that my chest has a more masculine appearance. I’ve been happy with the results, and I feel fortunate in that regard.

I do, however, still know that I am not a biological man. I am happy with the fact that I walk through the world being *perceived* as male. However, biology reminds me every day that I’m not.

¹⁸⁰ Claire Renee Kohner, “What Are the Most Serious Negative Side Effects of Gender Reassignment Surgeries?,” Quora, June 26, 2019, <https://www.quora.com/What-are-the-most-serious-negative-side-effects-of-gender-reassignment-surgeries>.

I still experience dysphoria with my genitalia. However, I’ve chosen not to have any genital modification because I do not find the options available for a female-to-male transsexual aesthetically or functionally desirable.¹⁸¹

These cases and others support the idea that some form of gender transition can sometimes serve, at a minimum, palliative purposes for those who experience extreme forms of anxiety, depression, and suicidality as a result of gender dysphoria—notwithstanding the heavy risks and ongoing medical and other complications often attendant upon such procedures.

IV. Islam and Transgenderism

A. Islam and Gender

The Islamic conception of gender is predicated on a set of probative passages in the Qur’ān and instructions of the Prophet (ﷺ) explicating commands, prohibitions, rights, and obligations. Most of the time when revelatory texts instruct believers, the address is not gender-specific. The universal application of verses and prophetic commands is expressed by way of the masculine plural (“O you who believe”: *yā ayyuhā lladhīnā āmanū*)—the masculine plural being the conventional way of addressing a group consisting of both men and women, in contrast to the feminine plural, which is exclusive to women. Thus, believing men and women are commanded to exhibit piety, obey God, request forgiveness for sin, and observe ritual prayers and fasting. Likewise, both men and women are told that they originate from a single soul (*nafs wāhida*), namely, Adam. From Adam, Hawwā’ was created (specifically from the rib, according to hadith sources), and from them numerous subsequent generations were born.¹⁸² Al-Ṭabarī states that this anthropology serves to remind human beings of their common origin such that the rights of each person would be preserved and wrongdoing averted.¹⁸³

God, however, makes a clear distinction between men and women, and this division is described as a cosmic pairing that reflects His creative will such that not only humans but also creation writ large exist in complementary pairs. In the Qur’ān, God says, “And of all things We created pairs, that perhaps you may be mindful”

¹⁸¹ Todd Whitworth, “I Have Gender Dysphoria. But Your Trans-Identified Child May Not,” *Quillette*, March 7, 2019, <https://quillette.com/2019/03/07/i-have-gender-dysphoria-but-your-trans-identified-child-may-not/>.

¹⁸² See Q. *al-Nisā’* 4:1.

¹⁸³ See Muḥammad b. Jarīr al-Ṭabarī, *Tafsīr al-Ṭabarī min kitābihi Jāmi’ al-bayān ‘an ta’wīl āy al-Qur’ān*, ed. ‘Abd Allāh b. ‘Abd al-Muhsin al-Turkī, 25 vols. (Cairo: Dār Hijr, 1422/2001), 6:339, <https://ia802500.us.archive.org/18/items/WAQ59561/taftabry06.pdf>.

(Q. *al-Dhāriyāt* 51:49). Men and women are described elsewhere as dissimilar (Q. *Āl 'Imrān* 3:36), and God reminds us of His munificence in that He “grants to whom He wills female [children] and grants to whom He wills males” (Q. *al-Shūrā* 42:49). In *Sūrat al-Najm*, God says that “He creates the two mates—the male and the female—from a sperm drop when it is emitted” (Q. *al-Najm* 53:45–46). Al-Jaṣṣāṣ comments on this passage, stating that it “encompasses all, and this indicates that one cannot be devoid of being male or female, and that the hermaphrodite [too] is not devoid of being one of the two, even if his case is indeterminate to us.”¹⁸⁴

Occasionally, verses and prophetic statements address either men or women specifically and, in so doing, delineate particular responsibilities or prohibitions that apply exclusively to one sex or the other. A number of these distinctions reflect physiological differences, such as the rulings related to growing a beard, what is forbidden or permitted during menstruation, and what comprises the *'awra* (that part of the body that must remain covered), all of which are necessarily distinguished by gender. Aside from rulings specific to male vs. female physical embodiment, there is the previously exposed discussion of gender nonconformity in Islam in part 1 of this study,¹⁸⁵ which centers on the categories of the *khunthā* (hermaphrodite / intersex individual) and the *mukhannath* (effeminate male).

Islam’s treatment of gender is principally anchored in biological composition. Men and women simply *are* as God made them, with deep biological differences that inform their behavior in social settings. This elemental fact is evidenced in many places, perhaps none clearer than in the discursive surrounding gender determination for the intersex individual (*khunthā*).¹⁸⁶ All scholars have premised the gender determination of the *khunthā* on genital function, with supplementary consideration given to subsequent physiological development upon puberty. The disjunction between behavior and mannerisms, on the one hand, and otherwise unambiguous biology, on the other, is addressed in legal discussions of the *mukhannath* (effeminate male) and the *mutarajjila* (manly female), and although certain contingent dispensations are provided for the dispositionally (*khilqī*) nonconforming (with an

¹⁸⁴ Abū Bakr al-Jaṣṣāṣ, *Aḥkām al-Qur'ān*, ed. Muḥammad al-Ṣādiq Qamḥāwī, 5 vols. (Beirut: Dār Iḥyā' al-Turāth al-'Arabī, 1412/1992), 5:298, https://ia802502.us.archive.org/34/items/WAQAhqrgsAhqrgs/05_ahqrgs.pdf. Al-Qurtubī, in his own commentary on Q. *al-Shūrā* 42:49, comments that the verses referring to men and women in pairs indicate what is normative or predominant but do not preclude exceptions. Al-Qurtubī furthers this by stating that based on God’s mention of His ability to create “what He wills,” the presence of the hermaphrodite as sexually ambiguous poses no problem at all and would only be thought to do so on account of ignorance. See Abū 'Abd Allāh al-Qurtubī, *al-Jāmi' li-ahkām al-Qur'ān*, ed. 'Abd Allāh b. 'Abd al-Muhsin al-Turkī, 24 vols. (Beirut: Mu'assasat al-Risāla, 1427/2006), 18:506, https://ia802904.us.archive.org/8/items/waq73651/18_73668.pdf.

¹⁸⁵ See Vaid, “‘And the Male Is Not like the Female’ . . . Part I,” <https://muslimmatters.org/2017/07/24/and-the-male-is-not-like-the-female-sunni-islam-and-gender-nonconformity/>.

¹⁸⁶ See *ibid.* for a comprehensive discussion.

emphasis on the lack of moral culpability for said dispositional traits), behavior does not override biology when it comes to the ascription of gender. The presence of gender clarity for the anatomically unambiguous is, in fact, the Shāfi‘ī school’s justification for refusing a dispensation (allowed by the majority of scholars) for the effeminate male (*mukhannath*) to remain in the company of women, arguing that such a male, though effeminate, nonetheless retains the potential to marry women upon whom he would enter and therefore should not be permitted to remain with women in confines where they do not observe hijab.

Revelation and its concomitant gender-specific ordinances are in keeping with normative behavioral tendencies derivative of biology. Accordingly, instructions for men to take care of women, protect their households, provide maintenance, play a more pronounced role in religious leadership, and related injunctions accentuate qualities that normally emerge inherently within the male, while interdictions against *khalwa* (seclusion with a member of the opposite sex), physical contact with non-*mahrams* (with some disagreement over the shaking of hands), and recommendations to fast mitigate iniquitous and immoral aspirations that arise from the male libido. Likewise those obligations and prohibitions that apply to women. The outcome is the promotion of a life of feminine and masculine virtue, with a great deal of permitted variation to account for individual male and female differences. Far from confining men and women within narrow stereotypes, revelation allows for latitude, presenting as heroes saintly men and women who took on various tasks in the path of God (though these variations are principally bound up in what is normatively feminine or masculine). Men, for instance, more frequently assume positions of political leadership and are judged for discharging their contingent authority either responsibly or recklessly, just as they are often warriors and, on occasion, even obligated to enter into combat (dereliction from which is sinful). God’s prophetic messengers—all male—were commanded to preach in public capacities, often at great personal risk, and the Children of Israel are rebuked in the Qur’ān for their frequent killing of the messengers sent to them by God. Women, on the other hand, are often mentioned in the Qur’ān in capacities that are domestic and familial in nature. Some receive glad tidings of children miraculously conceived (e.g., Sarah, Mary), whereas others are mentioned for their relationship to their husbands (e.g., Āsiya, the wife of Pharaoh).

Islam’s confirmation and accentuation of gender differences raises the question of how it judges those situations involving gender dysphoria. As we have noted above, individuals with GD not only experience psychosocial alienation because their anatomy conflicts with their impulses, desires, and deep-seated inclinations, but they may also, in fact, construe themselves as *being* the opposite gender. In some senses, the Shāfi‘ī offers considerably more latitude than what is normal in modern society, at least insofar as contemporary Western norms create conditions that foment alienation through a limited and parochial notion of masculinity and femininity. Conventional cultural norms surrounding masculinity, for instance, are often

associated with forms of “macho” behavior, with caricatured representations of well-sculpted men who engage in sexual dalliances with attractive women and fight recklessly in high-stakes combat scenarios (e.g., James Bond, Rambo, the Terminator). Men who do not subscribe to these representations or who shun such interests in favor of preoccupations that are, say, artistic in nature are often viewed as less manly. But such representations, if held transhistorically, would almost certainly implicate some of the Prophet’s (ﷺ) own Companions. Some, for instance, were regarded for their size and strength, but others were thin and short.¹⁸⁷ Some earned valorizations for their efforts on the battlefield, while others were praised as belletrists. Some were eminently wealthy, and others lived as renunciants. Moreover, much of what the Prophet (ﷺ) instructed and practiced himself breaks modern Western stereotypes of masculine behavior, such as the vocalizing of brotherly love, exhibiting platonic affection for members of the same sex such as hugging them or holding them by the hand, and kissing children on the cheek as an act of benevolence and kindness. It remains a common convention in certain Muslim societies today for men to hold hands while walking, a practice that would certainly carry sexual undertones and suspicions of homosexuality in the contemporary West.

Similar variability exists when we observe female Companions. The Prophet’s (ﷺ) wives differed in their demeanor, behavior, and interests. Some inclined towards charity (such as Zaynab), whereas ‘Ā’isha famously transmitted the Prophet’s (ﷺ) teachings after his passing, going on to become one of the chief narrators of hadith. The Shari‘a’s constraining of gender-specific behaviors is not for the purpose of dictating uniform masculine or feminine archetypes as much as it is for the purpose of imbuing the natural characteristics of men and women with virtue while allowing for the materialization of a spectrum—provided that no cultural or social norm contravenes one’s moral duty (such as a male’s obligation to discharge *qiwāma* over women in his care, for example). While the Sacred Law accommodates those gender atypical mannerisms (gait, voice, etc.) that come to a person naturally, it prohibits deliberate imitation of the opposite sex in behaviors and affects that go beyond this limit. Such affects may include things like cross-dressing, “social transitioning,” taking on a different name belonging to the opposite sex, men wearing makeup in an unmistakably feminine manner, or women affecting a deliberate and unmistakably masculine experience. At its root, the desire to engage in such behaviors is located in one’s psyche, and the ultimate antidote to this—in tandem with appropriate psychological interventions where needed—is to find comfort and peace in the body in which God has created one, seeing in it perfection, beauty, and an opportunity to attain closeness unto Him.

¹⁸⁷ See, for instance, the example of Ibn Mas‘ūd and his skinny legs as reported in Al-Ḥmad b. Hanbal, *Musnad al-Imām Āḥmad*, ed. Shu‘āyb al-Arna’ūt et al., 50 vols. (Beirut: Mu’assasat al-Risāla, 1993–2008/[1413–1429]), 7:98–99, <https://ia802605.us.archive.org/26/items/waqmsnda/msnda07.pdf>.

B. Sex Reassignment and the Shari‘a

The first cases we see of scholarly engagement with the prospect of sex reassignment date to the late twentieth century. Ayatollah Khomeini (d. 1409/1989), the Shi‘ī jurist and leader of the Iranian Revolution, discussed sex change operations as early as 1967, while Egyptian mufti and Shaykh al-Azhar Jād al-Ḥaqq (d. 1417/1996) wrote a fatwa about them in 1981 in response to a question from the Malaysian Centre for Islamic Research. Khomeini apparently endorsed such surgery within certain parameters.¹⁸⁸ Jād al-Ḥaqq responded by sanctioning corrective surgeries to reveal buried or otherwise “hidden” sexual organs, whether male (*maghmūra*) or female (*maṭmūra*). He did not, however, sanction sex change surgery, and he explicitly forbade the prospect of men changing into women and vice versa in light of the various hadith that speak of Allah’s curse falling upon “men who take on the semblance of women and women who take on the semblance of men.”¹⁸⁹ The issue again rose to prominence in the Muslim world one year later, in 1982, when Sayyid, a male student at al-Azhar University in Cairo, underwent sex change surgery after extended consultations with a psychologist and took on the name Sally. Following the surgery, al-Azhar insisted that “Sally” would neither be allowed to enter the all-female medical school nor be readmitted to the male medical school. “Sally” pursued the matter, which resulted in wide media coverage and, eventually, the involvement of the courts. When Muhammad Sayyid Tantawī (d. 1431/2010), who succeeded Jād al-Ḥaqq as Shaykh al-Azhar, was consulted on the matter in 1988, he issued a fatwa—drawing on Jād al-Ḥaqq’s—in which he reiterated the permissibility of surgically repairing hidden male or female sexual organs, stating that “it is obligatory to do so on the grounds that it must be considered a treatment when a trustworthy doctor advises it.” Nevertheless, it has been pointed out that the fatwa was actually non-committal insofar as it “evaded the question of whether the diagnosis of psychological hermaphroditism was acceptable from the point of view of Islamic law.”¹⁹⁰ As a result, both sides in the conflict appealed to Tantawī’s fatwa in support of their own positions.

In 1989, the Muslim World League’s Fiqh Academy discussed sex change surgery and declared it prohibited except in the case of the anatomically ambiguous intersex person (*al-khunthā al-mushkil*); as such, the Academy did not endorse the concept of psychological hermaphroditism.¹⁹¹ This has come to be the practically

¹⁸⁸ Although the import of his words has been disputed. See n. 200, p. 57 below.

¹⁸⁹ See Jād al-Ḥaqq, *Fatāwā Islāmiyya*, 3 vols. (Cairo: Dār al-Fārūq, 2005), 1:68–70.

¹⁹⁰ Jakob Skovgaard-Petersen, “Sex Change in Cairo: Gender and Islamic Law,” *Journal of the International Institute* 2, no. 3 (1995), <http://hdl.handle.net/2027/spo.4750978.0002.302>.

¹⁹¹ Bādī‘a ‘Alī Āḥmad considers the desire to change gender as either an unjustified whim or, at most, a psychological illness that must be treated by means other than sex change

unanimous position among Sunni Muslims.¹⁹² A more recent fatwa authored in 2011 by Mufti Zaynul Islām Qāsmī, the vice-mufti of Darul Uloom Deoband, has concurred with this position of Sunni scholarship. In his fatwa, he includes a number of responses to common arguments used by proponents of sex reassignment surgery while taking specific aim at the 2004 ruling of a secular Kuwaiti court permitting such surgery on the basis of necessity (*darūra*)—a ruling overturned on appeal within the space of a few months.¹⁹³ Mufti Qāsmī’s responses include the following:

- A reply to those who appeal to the legislative maxim “necessities make the unlawful lawful” (*al-darūrāt tubīhu al-mahzūrāt*) to argue for the permissibility of transition surgeries. Mufti Qāsmī refutes the applicability of this maxim on the grounds that absolute necessity, in the legally relevant sense, cannot be faithfully or sufficiently proved. This is more so given that the individuals in question have lived, perhaps with some measure of anxiety, for several decades in the body in which they were born. Moreover, the mufti argues that a claim of necessity does not categorically render things permissible in any legal or moral system. If one were to make an exception to permit something impermissible on the basis of inherently subjective internal anxieties that are navigable and manageable, then any number of impermissible desires would have to be accommodated as well, thus opening the door to moral anarchy.¹⁹⁴ Here, the mufti glosses Tāj al-Dīn

surgery. See Ahmad, *al-Jawānib al-fiqhiyya al-muta‘allīqa bi-taghyīr al-jīns* (Alexandria: Dār al-Fikr al-Jāmi‘ī, 2011), 147.

¹⁹² The late Sh. Fayṣal Mawlawī (d. 1432/2011) issued a fatwa in 2002 permitting sex change surgery for someone with severe gender identity disorder. He proffered this permission as a last resort in the interest of preserving life, foregrounding significant psychological and psychiatric interventions as a precursor to surgical consideration. It should be noted here that this fatwa is without precedent in the Sunni tradition and that it endorses the specious notion of gender (as a psychological state) having priority over biological sex. In this, Mawlawī did not regard sex change surgery as a dispensation born of necessity (*darūra*) but instead as a permission akin to that of treating superfluous organs, viewing the dysphoric individual the same as a patient with an extra toe on his foot or finger on his hand. Mawlawī’s fatwa was originally published on his website, which is no longer active, but the fatwa has been cited by several secondary sources. See ‘Abd Allāh b. Muḥammad al-Rib‘ī, “Id̄tirāb al-huwiyya al-jīnsiyya: dirāsa fiqhīyya tibbiyya,” *Majallat al-Jam‘iyya al-Fiqhiyya al-Sa‘ūdiyya* 27 (2015).

¹⁹³ The Kuwaiti court verdict was issued on April 24, 2004 despite a 1997 fatwa from the Ministry of Endowments (Wizārat al-Awqāf) prohibiting sex change surgery for other than the *khunthā mushkil*. See ‘Umar Ḥasan ‘Abd Allāh al-Shihābī, *Taghyīr al-jīns darūra tibbiyya am intikāsa fitriyya?*, Muntadā Shabāb Imyāy, 2010, <https://kalamfikalam.ahlamontada.com/t6372-topic>.

¹⁹⁴ Muslim theologians and legal scholars (*fuqāhā*) affirm that the Sacred Law exists to regulate people’s conduct, not to cater to every desire and need. As the renowned legal theorist Abū Iṣhāq al-Shāṭibī wrote, “The legislative objective of the Sacred Law is to bring the

al-Subkī’s qualification of the maxim as requiring existential circumstances that outweigh the sin in question.¹⁹⁵ He also appeals to another maxim, namely, that “harm cannot be removed by means of another harm” (*al-darar lā yuzālu bi-l-darar*). Sex reassignment surgeries, he argues, would violate this maxim in light of the substantial harms inherent in the surgery—a surgery that may or may not succeed in mitigating individual dysphoria but that also introduces any number of complications, impairments, and problems for the individual, both in this life and the next.

- Mufti Qāsmī notes as well that a proper and complete sex change is, in fact, impossible from a conceptual point of view. Surgeries themselves merely make for cosmetic alterations, but they cannot cause, for instance, a biological male to menstruate or to bear children. The (subjective) psychological experience of one possessing an internal disposition that departs from his or her phenotype cannot override (objective) biology, as we would then have to entertain any number of claims asserted on the grounds of potent feelings alone.
- Arguments that appeal to mental illness are likewise considered inapplicable in this circumstance. Individuals who suffer addictions, for instance, also possess a type of ailment, but the state of the drunkard and the habitual fornicator, Mufti Qāsmī points out, is not alleviated by intensifying their sinful activity and relaxing their moral obligations. It is the same in the case of the dysphoric individual, whose suggested cure of sex reassignment stands to intensify the underlying illness rather than treat it.

The fatwa concludes by attending to the question of one who has already undergone sex reassignment. In this case, the fatwa recommends a detailed account authored by the individual who has gone through the surgery chronicling his or her experience

morally accountable human being (*al-mukallaf*) out from the dictates of his desires so that he can be a bondsman to God by choice, just as he is a bondsman to God without choice [i.e., in terms of his contingent circumstances and involuntary bodily processes].” See al-Shāṭibī, *al-Muwāṣaqāt*, ed. Mashhūr b. Ḥasan Āl Salmān, 6 vols. (Riyadh: Dār Ibn ‘Affān, 1424/2003), 2:289, <https://ia802608.us.archive.org/12/items/FPmuafkat/muafkat2.pdf>.

¹⁹⁵ Al-Subkī cites here by way of example the scenario of someone enduring hunger in a state of dire need being permitted—indeed obligated—to consume carrion (*mayta*). This general permission would, however, be restricted (and the person thereby prevented from satiating his hunger) in anomalous situations such as where the only consumable flesh available was the body of a prophet (given that the earth does not consume their bodies); in other words, the sanctity of prophets’ bodies remains permanently inviolable, even if respecting this inviolability were to impose undue hardship on, e.g., a starving person with no other available means of nourishment. See Tāj al-Dīn al-Subkī, *al-Ashbāh wa-l-naṣā’ir*, ed. ‘Ādil Ahmad ‘Abd al-Mawjūd and ‘Alī Muḥammad Mu‘awwad, 2 vols. (Beirut: Dār al-Kutub al-Ilmiyya, 1411/1991), 1:45, https://ia801308.us.archive.org/17/items/FP42189/01_42189.pdf.

alongside a report from a reliable Muslim physician conversant with the procedure. From there, individual verdicts can be dispensed by a judge as to whether such a person should be treated under the Sharī‘a as a man, a woman, a dispositionally effeminate male (*mukhannath*), or an ambiguous hermaphrodite (*khunthā mushkil*).¹⁹⁶

Like the Muslim World League and Darul Uloom Deoband, the top clerical body in Indonesia, the Indonesian Muslim Council (Majelis Ulama Indonesia, or MUI), issued a fatwa on the local *waria* community (*warias* are biological men who impersonate women).¹⁹⁷ Issued in October 1997, the fatwa states, *inter alia*, the following:

- Because *warias* are, biologically speaking, unambiguously male, they cannot be regarded as an alternate gender.
- The behavior of the *warias* in imitating women is prohibited (*harām*), and they must exert efforts to return to both the appearance and the behaviors (dress, affected mannerisms, etc.) proper to their natal male sex.¹⁹⁸

The MUI fatwa concludes with an appeal to the Ministry of Health and the Ministry of Social Affairs to mobilize efforts to guide and assist *warias* psychologically alongside a second appeal to the Ministry of Home Affairs to dissolve a prominent *waria* organization (HIWARI MKGR).¹⁹⁹

In Shī‘ī Iran, things took a different trajectory, apparently due to the influence of psychologist ‘Alī Akbar Siyāsī’s pivotal work enunciating a dual conception of human identity that comprised *badaniyyāt* (anatomy) and *nafsāniyyāt* (feelings, thoughts, and reactions). This bifurcation apparently “provide[d] a way to address transsexuality as a psychological condition in Islamic terms.” In 1987, the Iranian Ministry of Justice, in response to a query from the Legal Medicine Organization of Iran, asserted that sex change surgery was religiously permissible (citing Khomeini’s writings as support), and the government moved to legalize it.²⁰⁰ Notwithstanding, the matter remains controversial among Shī‘ī jurists. For instance, the prominent jurist Ayatollah Ja‘far al-Subhānī maintains that sex change surgery is prohibited except in the case of the *khunthā mushkil* (concurring, in essence, with the Sunni consensus as expressed by the Muslim World League fatwa). He interprets Khomeini’s endorsement of such surgeries as referring to the purely hypothetical case of

¹⁹⁶ See “Tabdīl-i jins: haqīqat, ma‘fāsid awr sharī‘ī ahkām?,” *Māhnāmah Dārul ‘Ulūm* 6, no. 96 (1433/2012), http://www.darululoom-deoband.com/urdu/magazine/new/tmp/03-Tabdili%20Jins_MDU_6_June_12.htm.

¹⁹⁷ “Kedudukan Waria,” Majelis Ulama Indonesia, November 1997, <https://mui.or.id/wp-content/uploads/files/fatwa/21.-Kedudukan-Waria.pdf>.

¹⁹⁸ *Ibid.*

¹⁹⁹ *Ibid.*

²⁰⁰ Afsaneh Najmabadi, “Verdicts of Science, Rulings of Faith: Transgender/Sexuality in Contemporary Iran,” *Social Research* 78, no. 2 (2011).

a total sex change being possible. Al-Subhānī points out that in reality, this could only happen by a divine miracle; all that surgery is capable of is a false and superficial change that does not alter the actual gender of the patient.²⁰¹

Both Sunni and Shī‘ī opponents of sex change surgery support their position—namely, that of default prohibition for other than necessity in the case of the *khunthā mushkil*—on the basis of the following:

1. Qur’ān 4:118–119, which describes “changing God’s creation” as a Satanic act
2. Hadith prohibiting mutilation of the human body (*muthlā*)
3. Hadith prohibiting imitation of the opposite gender
4. The fact that gender transition surgeries are fraught with scientific uncertainty regarding long-term effects and that anecdotal evidence suggests that they often do not bring notable satisfaction to patients

C. Islam and Transgenderism Today

Given the aforementioned considerations, what conclusions can be drawn that account for the complexity of gender dysphoria, hormone therapy, sex reassignment, and related issues tied to the question of contemporary transgenderism?

Having sought counsel from a number of scholars on the matter,²⁰² the steady conclusion we have found revolves around the subject of changing God’s creation, a prohibition known in works of *fiqh* as *taghyīr khalq Allāh*. This prohibition is based on several proof texts from revelation, including the verse of the Qur’ān in which Satan vows to misguide humanity by, among other things, “commanding them so that they change the creation of Allah.”²⁰³ This verse is coupled with a number of probative hadith in which the Prophet (ﷺ) speaks of God’s curse falling on those who “change the creation of Allah.”²⁰⁴

When viewed alongside prophetic reports about the curse on those who deliberately imitate the characteristics of the other sex, as well as revelation’s consistent

²⁰¹ Ja‘far al-Subhānī, “Taghyīr al-jins fi al-sharī‘a al-Islāmiyya,” in *Aḥkām ṣalāt al-qadā’, wāyālhi Khams rasā‘il fiqhīyya*, by Ja‘far al-Subhānī (Qom: Mu‘assasat al-Imām al-Ṣādiq, 2013), <http://imamsadeq.org/fa/index/book?bookID=259>.

²⁰² The authors would like to thank in particular Dr. Hatem El-Haj and Sh. Mustafa Umar for their generous and careful review of the current section and the overall paper. May Allah reward them and the other scholars who took the time to read this article and provide feedback in helping to vet, shape, and interpret the material.

²⁰³ Q. *al-Nisā’* 4:117–118.

²⁰⁴ See, among others, Muḥammad b. Ismā‘īl al-Bukhārī, *Ṣaḥīḥ al-Bukhārī* (Damascus: Dār Ibn Kathīr, 1423/2002), 1853, nos. 4604 and 4605, <https://waqfeya.com/book.php?bid=3584>. See also <https://sunnah.com/urn/182230>.

and unmistakable classification of human beings as constitutionally and dispositionally either male or female, these texts support the inherency of gender as an immutable fact of our creation, notwithstanding the exceedingly small population of the *khunthā mushkil*, intersex individuals whose gender is completely ambiguous both anatomically and genetically. This conclusion is strengthened by the fact that the Sharī‘a acknowledges and accommodates those who are congenitally nonconforming in gait, speech, and other such behaviors but does so while upholding the reality of their underlying sex and, in fact, maintaining the vast majority of sex-specific *sharī‘i* rulings (e.g., inheritance, marriage) on the basis of biological sex rather than internal disposition or outward behavior.

The argument for sex alteration on the basis of necessity (*darūra*) remains unsubstantiated. The prospect of sex change surgery, hormone therapy, or puberty suppression successfully resolving suicidality and other symptoms of gender dysphoria is far too subjective, with post-transition studies reporting a persistence and, at times, even an intensification of suicidal ideation, self-harm, and other forms of anxiety and personal trauma. The conceptual and ontological impossibility of a true and complete sex change further buttresses this conclusion, as surgeries and related medical interventions at most yield cosmetic alterations that may succeed as strictly palliative measures. Ultimately, gender dysphoria—provided that intersex syndromes and disorders of sexual development have been ruled out—is a mental disorder, not a physiological abnormality. As such, it is something that requires proper psychotherapeutic care as well as familial and social support, not radical medical interventions carried out on a healthy, unambiguously male or female body.

Some of those experiencing gender dysphoria may fall partially into the categories of *takhannuth* (male effeminacy) and *tarajjul* (female manliness). We recall that these categories refer specifically to innate mannerisms beyond a person’s conscious control. As such, they have always been distinguished from *tashabbuh* (lit. “seeking to resemble”), which involves the deliberate imitation of the opposite sex (traditionally manifested in things such as cross-dressing). As it stands, the primary manifestations of contemporary transgenderism—including sartorial and social transitioning, hormone therapy, and/or surgical interventions—fall into the category of *tashabbuh*, the ruling of which is one of prohibition.²⁰⁵ Dealing with transitioning or transitioning individuals in the community will require careful consideration by a qualified scholar who is aware of the person’s circumstances, communal arrangements, and related factors—though *sharī‘i* rulings on sex-specific matters (such as marriage, inheritance, leading the prayer, etc.) would apply in conformity with the person’s biological gender.

²⁰⁵ Readers are referred to part 1 of this study for a detailed discussion of the aforementioned categories, <https://muslimmatters.org/2017/07/24/and-the-male-is-not-like-the-female-sunni-islam-and-gender-nonconformity/>.

V. Conclusions

Our research on transgenderism began over two years ago. In the intervening time, developments have occurred that have dramatically raised the stakes of the debate, particularly as it pertains to social and pedagogical reforms directed towards children. The United States Supreme Court has recently interpreted Title VII protections to extend to sexual orientation and gender identity (with amicus briefs having been filed both in support of and opposing the motion by different Muslim groups). Meanwhile, a school county in Minnesota is being sued by a family alleging discrimination for not allowing their socially transitioned child to use the bathroom corresponding to his/her gender identity (the student is apparently using a single-occupancy restroom, though such a compromise is alleged to be “isolating”), while a school district in Chicago, after a contentious hearing, recently passed a measure providing transgender students unrestricted access to the locker room of their choice. The list could go on, and hardly a week passes without news of a new county deliberating similar measures. Adding LGBT-themed books to school libraries and incorporating teachings into curricula that depict gender as a subjective social phenomenon have become staples of this culture war, and suburban districts throughout the country are moving forward with LGBT affirmation as central to their institutional commitments. Teachers, counselors, school administrators, and others are rapidly being coopted into this program, and anything short of full-fledged “affirmation” is henceforth regarded as latent bigotry that must be expunged from civil society.

The existing political atmosphere, characterized by an arguably unprecedented level of polarization that is regularly exacerbated by radical partisans, leaves little room for negotiation and reasoned compromise, so the discourse becomes more totalitarian, more tribalized, and zero sum. “Silence is violence” tells us that sitting out is irresponsible and morally reprehensible, thus pressuring those with conflicting moral views into cultural conversion. The now common appeals to “complicity” charge those with deeply held values opposing the LGBT agenda of sharing the blame in crimes committed by radical actors. If one is opposed to reforming school curricula in conformity with the latest LGBT pieties, then one shares in the deaths of innocent gay and trans citizens (“People are dying and here you are worried about a few books at the library that could have saved real lives!”). Over time, such rhetoric coerces all into either submission or silence.

In this study, we have taken great care to examine the various threads related to transgenderism. It is by no means comprehensive, but as a work geared to providing Muslims meaningful insight into the debates of the moment, the paper has sought to offer a substantial amount of material drawing on a wide range of research on the topic. This includes research highlighting gender dysphoria and contemporary debates over its origins, historical developments, controversies, and medical treatments. We have also reviewed recent treatments of sex change surgery by Muslim scholarly authorities and offered a concise presentation of their ruling (*hukm*) on it.

Though such an articulation is critical for Muslims, it is ultimately inadequate insofar as it does not offer nearly enough for those on the ground. The reality is that for the vast majority of people in the Muslim community, including imams, therapists, physicians, and parents, the topic of transgenderism represents uncharted waters. The majority of counselors and therapists in the Muslim community attend to domestic disputes such as rocky or failing marriages, child-parent tensions, eating disorders and related anxieties, and domestic violence. Some may occasionally find themselves dealing with Muslims who struggle with same-sex attractions, though even this bears little correspondence to individuals who have come to hate their own bodies, their genitalia, their identity, and how God made them—a boy or man whose few moments of ease arise when he wears makeup or dons female undergarments or begins to wear hijab outside the house, a girl or woman who agonizingly “chest binds” to suppress the protrusion of her breasts in order to appear more masculine. How can we minister to such people in a way that does not aggravate their alienation, trauma, and personal despair *without* violating our core commitments as a moral community or entrenching their dysphoria further? Herein lies the million-dollar question.

It goes without saying that notions of gender fluidity are inherently relativistic, and this phenomenon is but a microcosm of the larger moral relativism prevalent in the contemporary West. Bearing this in mind, it becomes vital to address the notion of experiential knowledge as far as the topic of gender identity is concerned: “I have experienced this, and this is true for me. Until you have felt what I have felt and seen things through my eyes, don’t come and tell me otherwise.” No amount of rational discourse or rhetoric would make a difference in a context where emotions are volatile and traumas are involved, coupled with relativistic assumptions about the world devoid of any clear or fixed frame of reference. Absent revelation and a God-conscious discourse, people have the freedom to experiment across the spectrum and see what “works for them” at a given point in time. In other words, there are no limits to how a person may choose to manifest and express his or her own notions of sexual orientation or gender identity if there are no proper, objective foundations to fall back on. It follows from all this that proper individualized care for a person struggling with gender dysphoria must account for that person’s collection of experiences, emotional attachments, traumas, and individual perceptions, together with an integrated frame of reference necessary to build proper and sturdy foundations. Such a feat is, quite evidently, very challenging.

Some will no doubt propose to enhance the current focus on psychotherapy. If current trends persist, however, few counselors will be in a position to offer anything other than “affirmative therapy,” particularly if desistance is treated the same way so-called conversion therapy for homosexuality has been treated by clinical authorities. If at some point this prospect materializes in full, desistance therapy may well be formally outlawed as a practice in certain jurisdictions. Muslim chaplains, physicians, school administrators, counselors, and others would then find themselves

in correspondingly difficult circumstances. Imams may retain greater professional latitude, though young Muslims are increasingly turning away from imams, treating them with suspicion, and are thus unlikely to take instruction from them on matters that, for many in the postmodern West, have become fundamental to their psycho-social identity. Within such a milieu, it will be nearly impossible for parents of children experiencing GD (as well as for adults experiencing GD) to find any reasonable guidance that does not reflexively commit to so-called affirmative care as a starting point. Parental and personal discomfort with such a prospect will be interpreted as bigotry and discrimination, old-world attitudes that are out of step with modern values of equality and tolerance.

This is all very alarming indeed. Short of independent bodies that can counteract the pressures of the prevailing discourse, Muslim families and their youth will forever be at the whim of the unpredictable shifts of liberal social sensibilities. In the meantime, families dealing with such issues will be largely on their own. There are some steps that can be taken in such cases, though these are highly discretionary and depend on the context and the individual in question. One may enlist help from family members, for instance, but care must be taken as such efforts can fracture relationships and lead to a deterioration in the integrity of the family altogether. Individuals experiencing GD must be approached with care, empathy, and understanding. In some cases, more of a “tough love” approach has been cited by some transgender individuals who ended up desisting from transitioning (bearing in mind that such an approach must be handled with emotional maturity and patience).²⁰⁶ The difficulties faced by an individual with GD should not be underestimated, and those struggling with such a condition should never be ridiculed or ignored. In light of the late Joseph Nicolosi’s theory regarding gender nonconformity, it would be prudent in a great many cases to examine factors such as abuse and childhood traumas, as these will need to be addressed for the affected individual to find wholeness and personal contentment. Almost all cases would benefit from a radical reduction in usage of the internet and social media, particularly venues that promote transgender ideology (which should be avoided altogether). It may also prove helpful to provide support groups of individuals of the same sex who can offer continuous emotional, spiritual, and psychological support and follow-up. More drastic measures may need to be considered if such problems persist. For example, it may be necessary to find a new physician if the existing primary care provider has been complicit in

²⁰⁶ Some people who have desisted from transitioning attest to how their lives were essentially saved by a family member, friend, or relative who spoke to them plainly, sometimes even harshly, and how such encounters stuck with them until they realized that they had been taken in by transgender discourse and no longer felt the need to transition. See, for instance, Sarah R., “I Hated Her Guts at the Time: A Trans-Desister and Her Mom Tell Their Story,” 4thWaveNow, January 18, 2018, <https://4thwavenow.com/2018/01/18/i-hated-her-guts-at-the-time-a-trans-desister-and-her-mom-tell-their-story/>.

encouraging transitioning (particularly at the pediatric level). If the individual and/or his or her family is under the influence of counselors, lobby groups, or peer pressure, then it may be beneficial to relocate to another district, county, state, or region.

In the meantime, the Muslim community must invest in the resources necessary to help minister and care for those suffering from severe cases of gender dysphoria. There is a pressing need for counselors and therapists who, supported through Muslim community patronage, can practice their professions independently in accord with Islamic principles and an accurate appreciation of the medical studies and statistical data. Also required are imams capable of navigating transgender discourse in order to help parents understand what public schools are teaching their children and to administer appropriately to Muslims suffering from gender dysphoria and their families. In short, counseling, treatment, and guidance on these matters should ideally involve a multi-disciplinary approach involving religious scholars, counselors, therapists, imams, and medical professionals, all of whom would possess adequate knowledge of gender dysphoria in its various aspects and are firmly grounded within a normative Islamic framework. Finally, robust curricula must be developed for the teaching of an Islamic sexual and gender ethic, one that authentically draws on the Islamic legal, ethical, theological, and spiritual traditions while bringing them into conversation with the fraught agendas of gender fluidity and contemporary trans activism. Much of this work has not even started and in other cases remains severely underdeveloped.

In the end, there are no easy answers. Gender dysphoria will likely remain with us for the foreseeable future, and the number of cases will continue to rise as the social phenomenon of transgenderism grows. It will be essential to understand the complexities of the discourse, our religious obligations, and our moral imperatives and to develop robust and well-rounded therapeutic interventions as we look ahead. We ask God to help us undertake this task. Amin!

And Allah knows best.

Appendix A: The Culture-Behavior-Brain (CBB) Model

An emerging theory of the brain's interaction with cultural conditions may serve to offer an added explanation of the modifications to brain structure observed in studies of transsexuals. The theory was inaugurated with a paper published in 2015 synthesizing over one hundred studies and formulating what is known as the Culture-Behavior-Brain (CBB) model.²⁰⁷ The CBB model is an integrated framework which posits that culture, behavior, and the human brain dynamically interact with and influence each other in ways that are more explicit than previously understood.

The process of CBB modifications begins with an idea assimilated into a social setting. The more deeply entrenched the idea, the more it permeates a cultural understanding of the phenomena associated with it. Consider the emergence of "sexual orientation" in the nineteenth century or the coining of the term "religion" as a discrete concept that came into being in the sixteenth century. Prior to the introduction of these concepts, the manner in which the underlying phenomena associated with them functioned, as well as how people conceived of them, differed dramatically. Thus, the introduction of "religion" did not merely describe what already existed; it created a sphere of activity that could be detached from other institutional forces and that has come to shape how we now construe world affairs (i.e., the place of religion in the world) as well as the organization of society (i.e., religion vs. the state). The permeation of the concept of "sexual orientation" has had a similar effect by providing a discrete identity and cultural script such that someone who merely *experiences* same-sex sexual attraction comes to conceive of that attraction as definitional to his or her sense of being and corresponding self-worth. The idea of transgenderism, though a much more recent phenomenon, has had much the same effect in establishing a new taxonomy for gender nonconformity and providing a cultural script through which particular feelings are understood and subsequently acted upon. What CBB tells us is that once these cultural scripts establish themselves as uncontested understandings of specific happenings in the world, the brains of those experiencing phenomena derivative of that understanding actually alter in structure due to the brain's inherent plasticity. Once this happens, the modified brain guides individual behavior to fit specific cultural contexts. Hence, culture, behavior, and the human brain interact dynamically through mutual connections, each influencing the other and changing continuously in the process. Human genes are integral to this process too, as they lay the groundwork for the structure and function of the brain as well as for behavior.

²⁰⁷ Shihui Han and Yina Ma, "A Culture–Behavior–Brain Loop Model of Human Development," *Trends in Cognitive Sciences* 19, no. 11 (2015), <https://doi.org/10.1016/j.tics.2015.08.010>.

Given the myriad brain studies on transsexual and transgendered individuals and their conflicting results, and in light of the CBB model posited above, the following question must be raised: Are the supposed brain changes in transgender individuals part of the etiological factors leading to transgenderism, or are they a result of the interaction between the brain and a culture that accepts, nurtures, and pushes for transgenderism (be that on a micro or a macro level)? And if they are in fact a byproduct of acculturation, does CBB offer a robust paradigm through which this change can be explained?

This very question is taken up in a paper published in 2018 by Mohammadi and Khaleghi.²⁰⁸ After examining a multitude of brain studies along with their (often conflicting) results, the authors urge us to look at these studies differently. As we have noted, studies on genetic influences for transgenderism have not furnished reliable results, and this absence of genetic substantiation has been buttressed by the lack of organic differences in the brains of adolescents with and without gender dysphoria. The congruence of adolescent brain phenotype with natal sex has been accounted for by the lack of sociocultural awareness. In other words, it is argued, children lack a substantial appreciation of their own behaviors, likes, and dislikes—let alone an appreciation of transgenderism and what it entails—at a stage of their lives where their integration into existing gender roles is still an ongoing process. It is only after puberty that a full internalizing of regnant cultural conventions tends to occur and, as a consequence, the distinctions between brain phenotypes become more evident. According to this model, brain changes emerge depending on the strength and length of habituation after initial exposure to the psychosocial phenomenon of transgenderism.

This may also explain why many of the brain studies are contradictory, given that such changes rely on a myriad of external variables. In other words, when a biological male experiencing gender dysphoria elects to regulate his lifestyle based on a female gender identity, it is expected that the brain will adapt to this belief and corresponding lifestyle with time. Consequently, changes first in the function and then in the structure of the brain will occur.

Now, it is crucial to understand that brain plasticity works both ways: just as the brain can learn new ideas and beliefs and change accordingly, it can also, in principle, unlearn said ideas and beliefs and change back to its original state (or something close to it). Therefore, an individual experiencing gender dysphoria who is socialized within a setting that teaches transgenderism as an explanation of gender nonconforming thoughts can nevertheless unlearn the cultural script he or she has been taught, thereby attenuating prior brain changes and returning the brain to a state more congruent with his or her natal sex (which would, in turn, help further abate

²⁰⁸ Mohammad Reza Mohammadi and Ali Khaleghi, “Transsexualism: A Different Viewpoint to Brain Changes,” *Clinical Psychopharmacology and Neuroscience* 16, no. 2 (2018): 136, <https://doi.org/10.9758/cpn.2018.16.2.136>.

nonconforming thoughts). Though further study is needed, CBB may provide an initial framework for therapeutic efforts and support the idea that an effective cognitive reorientation—such as through cognitive behavioral therapy, or CBT, for instance—may be of help to those struggling with gender dysphoria. Such efforts, however, would have to be brought into conversation with Islam’s ontology of human existence, which recognizes that our physical being is inextricably tied to our psychic and spiritual realities.

Appendix B: Intersex Persons

Intersex is a term that refers to individuals born with sex characteristics that do not fit within physiological definitions of male and female sex.²⁰⁹ In other words, such individuals have variations in their genitalia, sex hormones, and/or chromosomes, leading to gender ambiguity. It is necessary to differentiate intersex persons from transgender individuals: while the latter experience gender dysphoria and have problems with gender identity on account of subjective personal experience, the former are objectively proved, through medical examinations and tests, to have an incongruence between their genetic sex and the physical manifestations thereof. This section expands on the etiology and manifestations of intersexuality and ties this in to the discussion of gender dysphoria.

A. Phenotypic sex

During fertilization, the sperm adds an X (female) or a Y (male) chromosome to the X chromosome already present in the ovum (female egg). This results in an embryo with either XX sex chromosomes (a genetic female) or XY sex chromosomes (a genetic male). During embryogenesis, two sets of ducts develop that give rise to the human reproductive system: the paramesonephric (also known as Müllerian) ducts eventually develop into female internal reproductive organs (uterus, fallopian tubes, and the upper third of the vagina), while the mesonephric (also known as the Wolffian) ducts eventually develop into male internal reproductive structures (epididymis, vas deferens, seminal vesicles, and ejaculatory ducts). Up until approximately the seventh week of gestation, primitive sexual organs are not distinguishable between males and females. These organs develop later into either testes or ovaries, depending on the subsequent stages of embryogenesis.

Female sexual development is the default development in humans, whereby the paramesonephric ducts develop and the mesonephric ducts degenerate. However, if the embryo is genetically male, the Y chromosome (through the SRY, or testes-determining, gene on the Y chromosome) aids in the testes development process, suppressing the development of the paramesonephric ducts and stimulating the development of the mesonephric ducts. Hormones such as testosterone, produced by specialized cells in the testes, are necessary for the full development of the internal and external male reproductive organs. By birth, the typical baby can be visually

²⁰⁹ The traditional term used in the *fiqh* literature for persons with physiologically ambiguous sex is *khunthā* (pl. *khināth*, *khunāthā*). The traditional English term *hermaphrodite* has recently come to be replaced by the more clinical term *intersex*. For a detailed discussion of the *khunthā* in Islamic legal literature, see part 1 of this study, <https://muslimmatters.org/2017/07/24/and-the-male-is-not-like-the-female-sunni-islam-and-gender-nonconformity/>.

distinguished as male or female, with internal and external sexual organs congruent with the child's genetic sex.

Along the path of normal embryonic development, however, some problems can occur that impede this natural scenario. Such occurrences are classified as *disorders of sexual development*, or DSD. These disorders can be chromosomal: some human embryos do not have the normal set of 46 chromosomes (i.e., some may have an extra or a deficient number of sex chromosomes). Other disorders are not chromosomal: individuals may have the normal set of 46 chromosomes and, hence, from a genetic perspective are unambiguously females (46,XX) or males (46,XY), but due to issues with pathways of the sex hormones, discrepancies can arise whereby the external genitalia do not match the genetic sex and internal organs. As a result, some individuals can be genetically male but born with female or ambiguous external genitalia or genetically female but born with virilized (that is, masculinized) or ambiguous external genitalia. Upon suspecting disorders of sexual development, physicians nowadays order a series of tests that determine a person's genetic makeup as well as the presence or absence of internal sex organs to arrive at a proper diagnosis whenever possible.

B. Psychosexual development

Money et al., in 1955, proposed the concept of psychosexual development.²¹⁰ As shown by animal experiments, sexual differentiation is not completed with the formation of the sex organs; rather, the brain also undergoes sexual differentiation consistent with the other characteristics of sex.²¹¹ This paradigm suggests that in the case, e.g., of males, androgens (male hormones)—either directly or via local conversion into estradiol (a female hormone)—organize the brain in early development, while pubertal hormones, at the time of puberty, “further activate and reorganize the already organized brain, resulting in the expression of masculine behaviors.”²¹² Two peaks for testosterone, in mid-pregnancy and during the first three months after birth, are thought to organize and entrench the neural circuits in the brain for the rest of a male individual's life.²¹³ It seems that rising testosterone levels during puberty then

²¹⁰ J. Money et al., “An Examination of Some Basic Sexual Concepts: The Evidence of Human Hermaphroditism,” *Bulletin of the Johns Hopkins Hospital* 97, no. 4 (1955).

²¹¹ A. D. Fisher et al., “Gender Identity, Gender Assignment and Reassignment in Individuals with Disorders of Sex Development: A Major of Dilemma,” *Journal of Endocrinological Investigation* 39, no. 11 (2016), <https://doi.org/10.1007/s40618-016-0482-0>.

²¹² Ibid., 1208a.

²¹³ See Charmian A. Quigley, “Editorial: The Postnatal Gonadotropin and Sex Steroid Surge—Insights from the Androgen Insensitivity Syndrome,” *Journal of Clinical Endocrinology and Metabolism* 87, no. 1 (2002), <https://doi.org/10.1210/jcem.87.1.8265> and Dick F. Swaab,

activate and reorganize these pathways. Traditionally, psychosexual development has comprised three domains: (1) gender identity (sense of belonging to and identification with one's gender and people of the same gender), (2) gender role behavior (behaviors and traits designated by society as appropriate for males or females; the specifics of these are culturally and historically bound), and (3) sexual orientation (a person's responsiveness to sexual stimuli, mainly the sex of those to whom one is sexually and/or romantically attracted).²¹⁴ It can thus be seen that human sexual differentiation is a multidimensional and sequential process.

Any perturbation occurring during the complex process of sexual differentiation described above can lead to a misalignment between chromosomal, gonadal, and phenotypic sex, classically defined as a disorder of sexual development (DSD). In individuals with DSD, the three components of psychosexual development we have mentioned—gender identity, gender role, and sexual orientation—may not always be concordant or aligned.²¹⁵ As sexual differentiation of the reproductive organs takes place earlier in human development (namely, in the first two months of pregnancy) than sexual differentiation of the brain (which occurs in the second half of pregnancy), these two processes may be influenced independently. So, in the case of ambiguous genitals at birth, the degree of, e.g., masculinization of the genitals may not always reflect the degree of masculinization of the brain.²¹⁶

Psychosexual development thus appears to be a complex and long-term process affected by brain structure, genetics, in utero²¹⁷ and postnatal hormones, environment, and social and familial circumstances.²¹⁸ Arguably, after ruling out intersex

²¹⁴ "Sexual Differentiation of the Brain and Behavior," *Best Practice & Research, Clinical Endocrinology & Metabolism* 21, no. 3 (2007), <https://doi.org/10.1016/j.beem.2007.04.003>.

²¹⁵ For factors (1) and (2), see Heino F. L. Meyer-Bahlburg et al., "Prenatal Androgenization Affects Gender-Related Behavior but Not Gender Identity in 5–12-Year-Old Girls with Congenital Adrenal Hyperplasia," *Archives of Sexual Behavior* 33, no. 2 (2004), <https://doi.org/10.1023/b:aseb.0000014324.25718.51> and John Money, "The Concept of Gender Identity Disorder in Childhood and Adolescence after 39 Years," *Journal of Sex & Marital Therapy* 20, no. 3 (1994), <https://doi.org/10.1080/00926239408403428>.

²¹⁶ Christopher P. Houk and Peter A. Lee, "Approach to Assigning Gender in 46,XX Congenital Adrenal Hyperplasia with Male External Genitalia: Replacing Dogmatism with Pragmatism," *Journal of Clinical Endocrinology and Metabolism* 95, no. 10 (2010), <https://doi.org/10.1210/jc.2010-0714>.

²¹⁷ Ai-Min Bao and Dick F. Swaab, "Sexual Differentiation of the Human Brain: Relation to Gender Identity, Sexual Orientation and Neuropsychiatric Disorders," *Frontiers in Neuroendocrinology* 32, no. 2 (2011), <https://doi.org/10.1016/j.yfrne.2011.02.007>.

²¹⁸ Celina C.C. Cohen-Bendahan et al., "Prenatal Sex Hormone Effects on Child and Adult Sex-Typed Behavior: Methods and Findings," *Neuroscience and Biobehavioral Reviews* 29, no. 2 (2005), <https://doi.org/10.1016/j.neubiorev.2004.11.004>.

²¹⁹ See Martina Jürgensen et al., "Psychosexual Development in Adolescents and Adults with Disorders of Sex Development—Results from the German Clinical Evaluation Study," *Journal of Sexual Medicine* 10, no. 11 (2013), <https://doi.org/10.1111/j.1743-6109.2012.02751.x>.

syndromes and biological factors that may have contributed to DSD, it becomes evident that a person's environment, including social and familial circumstances, plays a crucial role in appropriate psychosexual development, accounting for the majority of DSD cases with misaligned components of psychosexual development.

C. Selected intersex syndromes

Congenital adrenal hyperplasia (CAH).²¹⁹ The most common DSD, congenital adrenal hyperplasia consists of an autosomal recessive disorder²²⁰ that leads to deficiencies in key enzymes involved in the pathway of steroid hormone production in the adrenal glands. Depending on what role the enzyme plays and the severity of the block in production, disease presentations in affected individuals can vary. Many forms of CAH exist, the most common of which is 21-hydroxylase deficiency, which may present during infancy as a salt-wasting adrenal crisis, or later during childhood as early precocious puberty and virilized external genitalia (in females) due to high levels of circulating male sex hormones, or androgens. Another form is 17-alpha-hydroxylase deficiency, in which the production of sex hormones is impaired. Genetic females thus lack female secondary sex characteristics at puberty, while genetic males have ambiguous genitalia with undescended testicles and can therefore be confused for females.

Androgen insensitivity syndrome.²²¹ Also known as testicular feminizing syndrome, androgen insensitivity syndrome describes an X-linked genetic disorder occurring in genetic males whereby a defect in the androgen receptor results in the body's not responding to testosterone in the way it should, resulting in a variety of disease manifestations. In the complete form of this syndrome, a genetic male appears as a typical female, with breast development and female external genitalia; such individuals live as females and are unaware of their condition until puberty, when they fail to menstruate. In the mild form, a genetic male has normal male external genitalia, accompanied by infertility and/or enlarged breasts. Finally, the partial form of this disorder is marked by a spectrum of undervirilized external male genitalia. Depending on the precise form of the syndrome, issues related to sex assignment, removal of the testes (due to the risk of developing tumors), fertility, and psychosocial outcomes must all be taken into account in the treatment process.

²¹⁹ See Diala El-Maouche et al., "Congenital Adrenal Hyperplasia," *Lancet* 390, no. 10108 (2017), [https://doi.org/10.1016/S0140-6736\(17\)31431-9](https://doi.org/10.1016/S0140-6736(17)31431-9).

²²⁰ This refers to disorders in which two copies of an abnormal gene must be present in an individual for the disease trait to manifest.

²²¹ Rafael Loch Batista et al., "Androgen Insensitivity Syndrome: A Review," *Archives of Endocrinology and Metabolism* 62, no. 2 (2018), <https://doi.org/10.20945/2359-3997000000031>.

5-alpha-reductase deficiency.²²² This autosomal recessive disorder occurs in genetic males, whereby an enzyme responsible for converting testosterone into dihydrotestosterone—a potent androgen responsible for male sexual development during the fetal period and later during puberty—is lacking. The deficiency in this androgen leads to various forms of undervirilization of the external genitalia in genetic males (ranging from feminine or ambiguous genitalia to a micropenis). Most often, these individuals are raised as females until they reach puberty, where an increase in the levels of androgens leads to the development of some male secondary sexual characteristics, such as increased muscle mass, deepening of the voice, development of a male pubic hair pattern, and a male-typical growth spurt.

Aromatase deficiency.²²³ Aromatase is an enzyme that is involved in the synthesis of estrogens (female hormones) from androgens. Aromatase deficiency is an autosomal recessive disorder that results from a gene mutation leading to maternal virilization during pregnancy (the fetal androgens can cross the placenta and lead to symptoms in the mother), as well as fetal virilization of the external genitalia. Genetic females are thus born with virilized or ambiguous genitalia, with high levels of circulating androgens.

Klinefelter syndrome.²²⁴ This refers to a genetic male with an extra X chromosome (i.e., 47,XXY). Klinefelter syndrome is reported to occur in 1 in 600 male births, approximately sixty-four percent of which remain undiagnosed throughout life. Typical characteristics include a eunuchoid body shape with tall and long extremities, female hair distribution, enlarged breasts, cognitive and developmental delays, and infertility.

Turner syndrome.²²⁵ Unlike Klinefelter syndrome, where a genetic male has an extra X chromosome, in Turner syndrome, a genetic female lacks an X chromosome (hence, she is 45,X). This occurs in 1 in 2,500 female births. Females with Turner syndrome generally have short stature, a short neck, and a broad chest and are at

²²² See Andrea Avendaño et al., “5-α-Reductase Type 2 Deficiency: Is There a Genotype-Phenotype Correlation? A Review,” *Hormones* 17, no. 2 (2018), <https://doi.org/10.1007/s42000-018-0013-9> and “5-alpha Reductase Deficiency,” National Institutes of Health U.S. National Library of Medicine, Genetics Home Reference, <https://ghr.nlm.nih.gov/condition/5-alpha-reductase-deficiency>.

²²³ Christopher Hakim et al., “Gestational Hyperandrogenism in Developmental Programming,” *Endocrinology* 158, no. 2 (2017), <https://doi.org/10.1210/en.2016-1801>.

²²⁴ Priyanka Bearely and Robert Oates, “Recent Advances in Managing and Understanding Klinefelter Syndrome,” *F1000Research* 8 (2019), <https://doi.org/10.12688/f1000research.16747.1>.

²²⁵ Xiaoxiao Cui et al., “A Basic Understanding of Turner Syndrome: Incidence, Complications, Diagnosis, and Treatment,” *Intractable & Rare Diseases Research* 7, no. 4 (2018), <https://doi.org/10.5582/irdr.2017.01056>.

higher risk of developing cardiovascular, skeletal, and autoimmune diseases. Almost all females with Turner syndrome are infertile.

True hermaphroditism (ovotesticular disorder of sex development).²²⁶ This is a very rare congenital anomaly characterized by the presence of both testes and ovaries in the same individual. Most commonly the individual would be a genetic female (46,XX).

D. Clinical management, gender reassignment, and medico-surgical interventions

There are many other conditions and syndromes that exist under DSD, but from the few selected examples, one can appreciate that chromosomal or hormonal imbalances can often lead to a wide variety of physical presentations where the regular definitions of male and female do not quite fit. Nowadays, in newborns found to have virilized or ambiguous genitalia or any secondary physical signs or symptoms typical of patients with such disorders, a set of tests is usually ordered to reach an appropriate diagnosis. Procedures such as a blood test to check for circulating estrogens and androgens, karyotyping (observing the complete set of chromosomes in the individual to determine any chromosomal abnormalities), and an abdomino-pelvic ultrasound are quick and easy tests that can serve as a starting point for further investigations.²²⁷

Of course, not all these disorders are diagnosed at birth, as some of them may only manifest during adolescence. Whether at birth or later in life, gender uncertainty is quite unsettling and may result in psychosocial and familial problems. Factors that influence the determination or assignment of gender include the diagnosis itself, genital appearance, surgical options, fertility potentials, and the need for lifelong hormonal replacement therapy, as well as cultural, familial, and, of course, religious considerations. Sometimes the person’s gender is quite obvious, as in the case of genetic females with congenital adrenal hyperplasia, where more than ninety percent of patients live as females (in congruence with their biological gender). Biological males with complete androgen insensitivity syndrome, assigned as females in infancy, will usually identify as females. In cases of ovotesticular disorder (that is, true hermaphroditism), issues to consider include fertility potential based on differentiation and development of the genitalia, as well as the degree to which the genitalia are, or can be made, consistent with the chosen sex.

Other than surgical interventions called for depending on the individual diagnosis, individuals may require hormonal therapy to induce puberty (including

²²⁶ Maria-Grazia Scarpa et al., “46,XY Ovotesticular Disorders of Sex Development: A Therapeutic Challenge,” *Pediatric Reports* 9, no. 4 (2017), <https://doi.org/10.4081/pr.2017.7085>.

²²⁷ Peter A. Lee et al., “Consensus Statement on Management of Intersex Disorders,” *Pediatrics* 118, no. 2 (2006), <https://doi.org/10.1542/peds.2006-0738>.

secondary sexual characteristics, a pubertal growth spurt, and optimal bone mineralization), as well as psychosocial support for psychosexual maturation.

E. Intersex, gender dysphoria, and transgenderism

It has been suggested that gender dysphoria is, in a sense, a subset of DSD, one limited to the brain and without the involvement of the reproductive tract.²²⁸ According to DSM-5, gender dysphoria is a condition characterized by a marked incongruence between one's experienced/expressed gender and one's biological sex, associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.²²⁹ The overlap between gender dysphoria and DSD lies in the possibility of experiencing discomfort in the discrepancy between one's sex as determined at birth and one's gender identity, which can eventually lead to a request for sex reassignment. The difference between DSD and gender dysphoria, however, lies in the consideration of biological sex indicators: sex chromosomes; sex-determining genes; genitalia; systemic sex hormones during fetal development, puberty, and adulthood; and secondary sexual characteristics. In gender dysphoria, all these biological indicators point in the direction of one's biological sex, while one's gender identity points in the opposite direction. In DSD, the misalignment also involves these biological sex indicators. This distinction has also been emphasized in DSM-5.

Gender identity problems and subsequent gender reassignment may occur later in life in persons with DSD, the context of which is different from that of non-DSD individuals.²³⁰ The question of how gender assignment at birth should be decided in cases of individuals with DSD so as to minimize the later development of gender dysphoria and gender change is very controversial and subject to ongoing debates in clinical management policymaking circles. Such gender identity problems are not universal, and when they develop, they may not occur before adolescence or even adulthood. Female-to-male is more frequent than male-to-female gender change in DSD patients; likewise, gender change is more common in syndromes with relatively high androgen exposure, suggesting an indirect influence of androgens on gender identity development. Hence, there are very marked variations between syndromes of DSD with respect to the prevalence of individuals who are not satisfied with their assigned gender and who eventually choose to undergo gender change.

²²⁸ A.D. Fisher et al., "Gender Identity, Gender Assignment and Reassignment," <https://doi.org/10.1007/s40618-016-0482-0>.

²²⁹ See DSM-5.

²³⁰ Heino F.L. Meyer-Bahlburg, "Introduction: Gender Dysphoria and Gender Change in Persons with Intersexuality," *Archives of Sexual Behavior* 34, no. 4 (2005), <https://doi.org/10.1007/s10508-005-4335-8>.

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