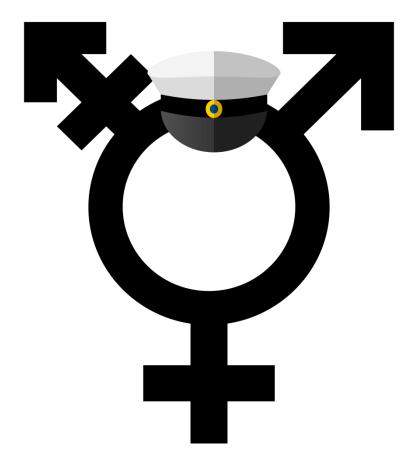


An Introduction to

Gender Identity & Expression

for University Biology Teachers



WE MUST ABOLISH THE ENTITLEMENT THAT DELUDES US INTO BELIEVING THAT WE HAVE THE RIGHT TO MAKE ASSUMPTIONS ABOUT PEOPLE'S IDENTITIES AND PROJECT THOSE ASSUMPTIONS ONTO THEIR GENDERS AND BODIES. ~~JANET MOCK



Table of Contents

- 3 Gender Identity and Gender Expression
- 17 Sexual Orientation
- 23 Biology and Gender Identity
- 33 A Brief Guide to Gender Affirming Procedures
- 40 Inclusive Classroom Guidance
- 52 Current Legislative and Social Changes in Sweden

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Gender Diversity at Uppsala University

The Swedish Discrimination Act as well as Uppsala University's Equality Policy state that no one should be discriminated against or harassed on account of their sex, gender identity or gender expression, ethnicity, religion or other belief, disability, sexual orientation or age. Additionally all students have the right to a good physical and psychosocial work environment characterized by mutual respect. Furthermore, EU member states have been mandated to include gender identity and gender expression in school curricula, encourage respect and understanding of transgender persons among staff and students, and provide training to educational professionals on how to approach transgender issues in education. This handbook, made possible by Uppsala University's funding for equal opportunity actions, aims to educate Uppsala University's biology teachers on gender diversity and how to promote a good psychosocial learning environment for transgender, intersex and gender nonconforming students that is free from discrimination and harassment. It is to be used as a resource on the following topics:

- 1) A basic understanding of gender identity and expression and how these qualities relate to and differ from sex and sexual orientation.
- 2) The intersection of biology and gender identity.
- Guidance for shaping biology classrooms that are proactively respectful and inclusive of transgender, intersex and gender nonconforming students.



Gender Identity and Gender Expression

Gender identity (*könsidentitet***)** is a personal sense of one's own gender as a man, woman, or non-binary (both, in between, neither or other). These last four non-binary categories are described here as how they relate to the gender binary, or the two most common genders: man and woman. However there are also names for non-binary genders that differ across languages, cultures, and time.

A person's gender identity is frequently eferenced in English with gendered titles (e.g. Ms., Mr. and Mx.), pronouns (e.g. she, he, and the singular they) and relationship-signifiers (e.g. husband, wife, spouse; boyfriend, girlfriend, partner; mother, father, parent; son, daughter, child, etc.).

Gender expression (*könsuttryck***)** is comprised of the perceptible characteristics of a person that carry gender significance such as clothing, hairstyle, mannerisms, name and pronouns, including physiological characteristics such as voice, body and facial hair, chest shape and musculature. A person's gender expression can be described using words like masculine, macho, manly, boyish, butch, feminine, femme, effeminate, girly, gender neutral, and androgynous. Aspects of a person's gender expression can be the same throughout their life, change over time or vary from day to day (or even over the course of the day).

The gender coding of expression varies greatly with cultural trends and individual context. For example, whether or not long hair is considered masculine or feminine, for example, depends on the current fashion trend, the person's profession, personality, interests and other expressive elements. On a man who belongs to a motorcycle club, wears jeans and leather and has a beard and tattoos, long hair might be considered an element of masculine gender expression. On a woman who belongs to a ballroom dancing club, wears dresses and make-up and jewelry, long hair might be considered an element of feminine gender expression.

Heteronormativity (*heteronormativitet***)** is the societal norm that human beings are classified according to a gender binary: that all persons belong to one of two distinct sexually dimorphic phenotypes (men and women), these two sexes are intrinsically affiliated with two distinct forms of gender expression and associated social roles (masculine and feminine) and persons of one category are only sexually attracted to persons of the other category (heterosexuality). Heteronormativity does not permit the concept of gender identity as a distinct phenomenon unrelated to chromosomes or reproductive organs. In a compulsory heteronormative society, all persons who do not adhere to this binary norm are deviant (deviations from the norm) and subject to gender policing.

Gender policing is the direct and indirect imposition or enforcement of heternormativity on those perceived to deviate from this norm in terms of behavior, expression, interests, identity, relationships or sexuality. For example, ridiculing a man for wearing his hair in a bun, pressuring a woman to shave her armpits, or insisting that a non-binary person look more gender neutral before respecting their gender neutral pronoun, are all examples of gender policing. Gender policing is a form of harassment and is upsetting for the person experiencing it.



For more information on gender policing see:

Konik, J. and Cortina, L. (2008). Policing Gender at Work: Intersections of Harassment Based on Sex and Sexuality. *Social Justice Research*, 21:3, 313-337.

Schilt, K. and Westbrook, L. (2009). Doing Gender, Doing Heteronormativity: "Gender Normals," Transgender People, and the Social Maintenance of Heterosexuality. *Gender and Society*, 23:4, 440 -464.

Cisgender and Transgender

A **cisgender person** (*Cisperson* in Swedish) is someone whose gender identity corresponds with the typical expectations of the sex they were assigned at birth. Gender assignment at birth is usually based on the appearance of external genitalia and sometimes genetic testing. For example, an adult who is assigned male at birth on account of a penis (or XY chromosomes if the genitals cannot be clearly categorized) and then also self-identifies as a man is a cisgender man. However, cisgender people may also occassionally experience some feelings of relating to or wishing to be the "other" gender or no gender.

A **transgender person** (*Transperson* in Swedish) is someone whose gender identity does not correspond with the typical expectations of the sex they were assigned at birth. For example, an adult who is assigned male at birth on account of a penis (or XY chromosomes if the genitals cannot be clearly categorized) and then self-identifies as a woman is a transgender woman. A transgender person may or may not make changes to their gender expression, including medically-supported biological changes and legal changes, in order to relieve gender dysphoria and present their gender identity in a way that feels more accurate or comfortable to them. **Gender dysphoria** is the distress one can experience due to the misalignment of one's gender identity with one's social and/or physiological gender expression. **Gender euphoria**, on the other hand, is the joy and comfort one can experience when feeling particularly satisfied with one's social and/or physiological gender expression is a process called **gender transition** (*könsövergång* in Swedish). Specific transition steps are sometimes referred to as **gender affirming** procedures. In Sweden, medically-supported transition is generally speaking, a slow process that takes place over several years and is tailored to the needs of the individual. The pace and accessibility of transition-related healthcare varies from country.

Some trans people transition before puberty and some after puberty. Youth transition is becoming more common, however there are still some restrictions on youth access to gender confirmation healthcare in Sweden. Many young trans people today transition before or on the cusp of adulthood and never live adult lives as the gender typically expected of the sex they were assigned at birth. Those who medically transition before puberty, never acquire the secondary sexual characteristics of the sex they were assigned at birth.

The words *transgender* and *trans* are usually used as adjectives. Trans is simply a shortening of transgender.

When the words *transgender* or *trans* modify the words *man* and *woman* the gender being modified is the person's gender identity. For example, a trans woman is a person who was assigned male at birth and has a female gender identity. Transgender persons can be trans men, trans women and non-binary trans persons. A person can self-identify as trans at any stage of transition including prior to coming out, meaning that a person can be transgender even if only they themselves know it. Additionally, some people who identify with one of the binary genders (man or woman) may no longer self-identify as trans after they consider their transitions to be complete, but rather as a man or woman with a transgender history.

Finally, sometimes *transgender* is defined as a category that excludes anyone who does not strictly identify as a man or a woman, and in direct contradiction with this usage sometimes *transgender* is defined as a non-binary gender category of its own separate from men and women. Therefore the meaning of the word beyond the basic definition of "gender identity incongruent with the sex assigned at birth," is context dependent.



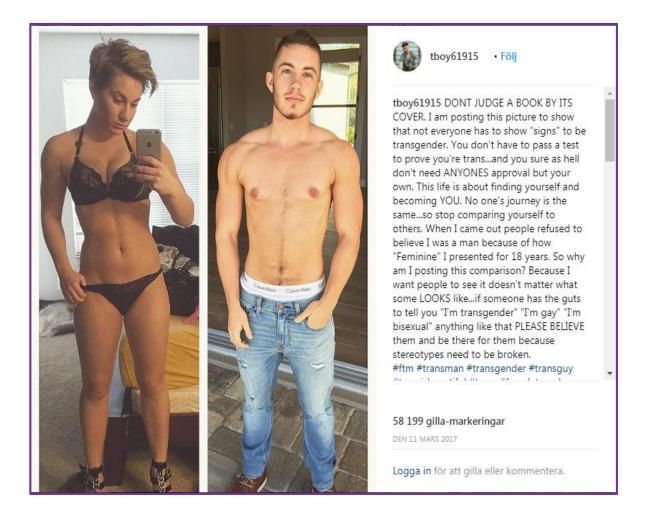
Tranny, Ladyboy, He-She and **Shemale (and Transa in Swedish)** are generally considered derogatory and offensive terms for trans women that should be handled with the same sensitivity as other slurs.

Transvestite is an out-dated term in English as it has mostly been replaced with words like **cross-dresser, genderqueer** and **gender non-conforming**. However **transvestit** is still commonly used in Swedish. The word describes a person who occassionally or always wears clothing, accessories and hairstyles that do not correspond with the expectations of their gender identity and/or the sex they were assigned at birth.

Transsexual is a term that was coined by the American endocrinologist, Harry Benjamin in 1966. The term has fallen out of favor in English, partially because of its history as a pathological medical term and partially because it confusingly sounds like a sexual orientation (e.g. homosexual, bisexual). While some trans people agree with the traditional pathological definition and think of themselves as having a medical condition that requires diagnosis by a physician, others embrace self-identification and actively speak out against what they consider to be the medical "gate-keeping" of access to gender affirming procedures.

The Swedish term, *transexuell*, is still commonly used to describe a person who has changed their legal gender after receiving the transsexualism medical diagnosis and undergoing specific gender affirming medical treatments, which until 2013 also required surgical sterilization. The diagnosis is still a requirement to change legal gender along with verification of living in accordance with another gender and the expectation to continue doing so. However there are no longer other medical requirements to change legal gender in Sweden. The matter is decided on a case-by-case basis by the National Board of Health and Welfare.

Transgender persons who have changed their legal gender have the right to full participation in society in accordance with their new legal gender in Sweden.



Gender Dysphoria

Gender dysphoria is persistent and significant psychological distress stemming from the incongruence between a person's gender identity and the sex assigned at birth in terms of the gendered aspects of one's body and/or social role. The experience of gender dysphoria is usually the motivation behind a transgender person's decision to transition. However, some trans people describe **gender euphoria**, the joy and comfort one can experience when feeling particularly satisfied with one's social and/or physiological gender expression, as their motivation to transition. For example, the elation trans people usually experience after undergoing a gender affirmation treatment is often described as gender euphoria.

"My dysphoria is not feeling like a man because the only affirmations I get are at school. My dysphoria is binding every day just so I can focus on my schoolwork because I can't look down at my paper without seeing my breasts. Dysphoria, for me, is feeling invalid because the questioning never goes away because the idea that I am not a man is beaten into me daily with purposeful misgendering and verbal assaults."

-Jameson

"Everything reminding me of my body is like a very big punch on my face, whether it's things I notice on me (body features, voice, etc.) or things that I notice I don't have but cis women do. I feel like every day, every minute I have to struggle, and I feel like all of these things are dragging me down, threatening my mental health. Yet, at the same time, I have to put on a mask and pretend everything's all right, so nobody knows what's happening under the surface."

—Liz

"Gender dysphoria is sadness. It's paranoia, depression, anxiety, envy, disgust, anger; it's all of the emotions no one likes to feel. Gender dysphoria is changing 10 times before leaving the house and still not feeling comfortable in your own skin. Gender dysphoria is not wanting to get out of bed. Gender dysphoria is feeling hopeless and lost. "There is nothing beautiful about gender dysphoria, it is the ugliest and saddest I've ever felt and I would never wish these feelings upon even my most hated enemies."

—Jonny

"Dysphoria for me is feeling like a tangled mess. **Everything is tangled, and I feel disgusting in my skin.** I hear the ringing in my ears, my head won't stop buzzing, and my face burns with embarrassment because of how round my face is or because how short I am or because my hips are wider than a boy's. I feel like crying, and I hate myself and the body I was born with. I keep reminding myself how feminine I sound or how no one will ever use my preferred pronouns because of my appearance. I wish I had been born into a different body. I wish I didn't feel so tangled." —Anonymous

Quotes from Sarah Karlan (2016). *We Asked People to Illustrate Their Gender Dysphoria*. Published online at www.buzzfeed.com.

Non-binary (ickebinär)

Millenials aren't creating new gender identities; they're only giving language to the ones that have existed under the burden of shame.

— @decolonizing_fitness

Non-binary gender identities are genders that are neither simply "man" nor "woman." Some people identify as both non-binary (or a more specific non-binary gender) and transgender since their non-binary gender identity does not match the expectations of the binary (boy or girl) sex assigned to them at birth. Other non-binary individuals do not use the word transgender to describe themselves.

A non-binary person may identify simply as non-binary, without further specification, or they may identify as one of the following non-binary genders:

Intergender or Androgynous: in between man and woman.

Genderqueer: not solely a man or woman. Genderqueer can be used on its own as a stand alone category (e.g. I am genderqueer), or as a modifier of man or woman (e.g. I am a genderqueer woman).

Bigender/Multigender/Genderfluid: two or several gender identities either siumltaneously, alternating or subject to change over time.

Agender: no gender identity at all or gender neutral.

More in-depth definitions of gender identities are available

in English: The Trans Language Primer, www.translanguageprimer.org in Swedish: Transformerings Ordlista, www.transformering.se/vad-ar-trans/ordlista

"In time, I suspect that the world will look back and see all our gender expectations for what they are truly are: limiting, controlling and, far too often, shaming. For me, being transgender is not a stepping stone, a spare room between being a 'man' and becoming a 'woman'. Trans isn't a motorway service station where trans people can stop on their arduous journey between one binary pole and another. Trans can be a destination itself. I want to spend my time within the beautiful, ever-expanding and learning boundaries of our community, seeking to explore what it means to be radically transgender without seeking any approval. Seeking safety, but safety on our terms; unjudged and accepted without needing surgery to fit a prescribed mold that we know is harming everyone, trans and cis."

– Juno Roche





In languages all around the world there are words that describe genders that fall outside of the binary categories of women and men. Some of the words describe a separate third gender, such as *hijra* in Hindi and *khawja sara* in Urdu, *māhū* in Hawaiian and Tahitian and *waria* in Indonesien which derives from the words *wanita* (woman) and *pria* (man). Others describe additional genders in relation to women and men, such as *fa'afafine* in Samoan which derives from *fa'a* meaning "in the manner of " and *fafine* meaning "woman." While others do both such as *winkte* in Lakota and *nádleeh* in Navajo. Not all of these words have positive connotations– a language can have a word for something and still treat that subject as taboo, deviant or sub-human. Some of these genders require specific rites of passage and the fulfilling of religious responsibilities. Additionally, all of these words also have the complicated histories inherent with change over time. Even in English the category "woman," is described in terms of another category, in this case "man." Although that wasn't always the case; in Old English *mann* referred to all people whereas *wifmann* specified a female person and *wēr* specified a male person.

While transgender is a relatively new word, English also has an older third gender word: eunuch. The modern useage of eunuch in English describes a person born with a penis who has been castrated. However the written history of the word imported to English from the Greek reveals a more complicated and nuanced useage involving specific social roles and includes not only persons born with penises who have undergone physical castration, but also those who lack sexual interest in women or are sexually impotent, and some intersex people. *Hijra* and other foreign third gender words have been habitually translated to eunuch in English, whether or not their actual useage included castration.



An Excerpt from Robinson, M. (2017). Two-Spirit and Bisexual People: Different Umbrella, Same Rain, *Journal of Bisexuality*, 17:1, 7-29.

Two-spirit, a translation of the Ojibwe term niizh manidoowag, is an identity that emerged in 1990 to describe third or fourth gender people in Indigenous cultures (e.g., First Nations, Metis, Inuit, American Indian, and Alaskan Native) across what is now called North America. As twospirit scholar Harlan Pruden notes, the historical phenomena is not a sexual identity. "Two-spirit within a traditional or pre-contact setting is a gender," Pruden states. "Gender dictates your role within the society. Women gathered, men hunted, and us, as two-spirit people, we did a unique thing" (CBC News, 2015). A number of scholars note that people who are two-spirit performed distinctive roles in Indigenous communities such as bestowing sacred names, or serving as leaders, intermediaries, or medicine people (Garret & Barrett, 2003; Blackwood, 1997; Bullough, 1976; R. M. Carpenter, 2011; Gunn Allen, 1989; Robertson, 1997). In some cases two-spirit men joined women in preparing food and making pottery or baskets, while two-spirit women hunted and engaged in warfare (Blackwood, 1997; Cromwell, 1997). In contemporary practice, two-spirit refers to Indigenous people whose sexual and/or gender identity is different from others. While not all Indigenous sexual or gender minority people identify as two-spirit, the label connects people across Indigenous nations and offers a common name for what were distinct identities or even distinct systems of sexuality.

Intersex

An **intersex person** is someone whose physiology does not correspond to typical definitions of female or male. An intersex person could have aytpical sex chromosomes (e.g. XXY), differences in sex horomone receptors (e.g. androgen insensitivity syndrome) or endogenous hormone production (e.g. congenital adrenal hyperplasia), atypical gonads (e.g. ovotestes) or genital structures (e.g. hypospadia). The gender identity of an intersex person may or may not match the sex they were assigned at birth (if assigned a sex). The medical umbrella terms used are disorders/differences/diversity of sex development.

Hermaphrodite is an outdated term for intersex. General use of the term referred to one specific form of intersex (a person with both male and female genitalia) and is usually considered offensive due to its strong historical connection with carnivals and circuses. Although there are those who feel empowered by reclaiming the word.

In countries with available medical interventions, infants and children with ambiugous genitalia have routinely been surgically altered in order to conform to the gender binary. Operating on the ambiguous genitalia of minors when not medically justified is now considered ethically controversial as it can lead to scarring and loss of sensation. Additionally, there is strong evidence to support the conclusion that medical intervention in these cases creates stigma rather than mitigating it (*see reading tips below*). Furthermore, intersex adult activists are speaking out against the practice and sharing their stories of subjection to forced conformity and the medicalization of an ironclad heteronormative structure that does not take into consideration the possibility of non-binary gender identities or experiences.

The Swedish Secretariat For Gender Research's intersex reading tips:

- Ellen K. Feder, Making Sense of Intersex: Changing ethical perspectives in biomedicine, Indiana University Press, 2014
- Katrina Karkazis, Fixing sex: intersex, medical authority, and lived experience, Duke University Press, Durham, N.C., 2008
- Georgiann Davis, Contesting Intersex: The Dubious Diagnosis, NYU Press 2015.



"Sex in the body is something that's built on layer after layer. There's the layer of chromosomes, the layer of hormones, the layer of genitals and anatomy, that all build towards what we see as male or female. But they don't always work in concert."

Dr. Anne Fausto-Sterling

What about Drag Kings and Queens?

Drag is a style of performance art with subcultures of its own that is frequently associated with gay men but is open to anyone. It is dressing up and performing in clothing and make-up that does not correspond to one's gender identity or usual gender expression. For example, a drag queen or a "female impersonator" is often a man who was assigned male at birth, identifies as a man and in everyday life has a male gender expression, but enjoys entertaining as a woman. However the line separating "drag" from "trans" in reality is frequently blurry and both cis and trans people can enjoy performing in drag.



Gender non-conforming

Gender non-conforming is an adjective used to describe a person whose gender expression does not adhere entirely to mainstream expectations for a man or woman regardless of their gender identity. Both cis and trans people can be gender non-conforming. Someone who is gender non-conforming may appear to have physical characteristics associated with both men and women (e.g. a beard and breasts), or they may appear to have the physical characteristics associated with one gender but the styling associated with another (e.g. a beard and lipstick). The gendered aspects of a gender non-conforming person's appearance may be consistent from day to day or may change frequently.

How do you know the gender of a gender non-conforming student? Your individual process of interpreting the student's gender and choosing a pronoun for them might be very different from someone else's process and consequently may result in a different conclusion. If you are unsure about a student's pronoun it is best to simply ask them politely which they would like you to use.

Are trans people always gender non-conforming? This is a tricky question to answer depending on the situation, however, in the context of a university classroom, the short answer is "no." Some transgender people are visibly gender non-conforming, while others conform to the typical expectations associated with their gender identity. It is therefore not possible to know if someone is transgender by their appearance alone since there are gender non-conforming people who are not transgender and there are transgender people who present no visible signifiers that they are transgender.



Sexual orientation

Sexual orientation is a description of a person's self-identified sexual and/or romantic attractions in terms of gender. Some people report their sexual orientation remaining constant throughout their lives and others report changes or fluidity. For some people it is the genitals of their partner or potential partner that defines their sexual orientation (e.g. a sexual interest in vaginas) whereas for others it is the gender identity and/or gender expression that matters most (e.g. a sexual attraction to women and/or femininity). The following is a short list of the most commonly used terms for describing different sexual orientation is very diverse and this list does not include all possibilities.

Gay or Homosexual, is a sexual orientation that describes a person who is sexually and/or romantically attracted only to people of their same gender.

Lesbian refers specifically to a gay/homosexual woman.

In English the terms *gay* and *lesbian* are generally preferred to the term *homosexual* which is considered out-dated, however this is not the case for the Swedish term, *homosexuell*.

Bisexual can describe a person attracted to men and women, or a person attracted to people of their same gender and genders that are different from their own.

Pansexual is similar to bisexual but with greater emphasis on sexual attraction to other people regardless of gender.

A bisexual or pansexual person generally considers other attributes (e.g. sense of humor or common interests) more important than gender to their experience of sexual attraction.

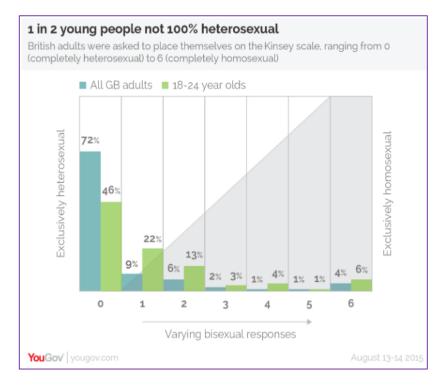
Straight or heterosexual describes both a man who is attracted to women only and a woman who is attracted to men only.

Asexual describes someone who does not experience sexual attraction or who has no interest in sexual activities.

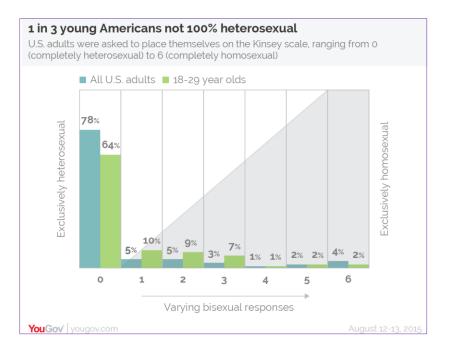
Queer is a word that has a derogatory history but has been reclaimed by many who feel that their sexual orientation is not adequately described by any of the categories listed above. The word queer can also encompass an identity with broader political connotations depending on local culture. Furthermore, sometimes queer is also used as an umbrella term to refer to everyone who has a minority sexual orientation or gender experience.

LGBT (or LGBTQIA) is a commonly used acronymn that refer to gender and sexual minorities. It stands for lesbian, gay, bisexual, transgender. It is becoming more common for queer, intersex and asexual to also be included in the acronym.

How many people are not heterosexual?



Dahlgreen, W. and Shakespeare, A. (2015). 1 in 2 young people say they are not 100% heterosexual. YouGov. Available online at https://yougov.co.uk/topics/lifestyle/articles-reports/2015/08/16/half-young-not-heterosexual. Accessed 2018-11-19.



Moore, P. (2015). A third of young Americans say they aren't 100% heterosexual. Available online at https://today.yougov.com/topics/lifestyle/articlesreports/2015/08/20/third-young-americans-exclusively-heterosexual. Accessed 2018-11-19.

Gender identity is not a sexual orientation

Gender identity and gender expression are both related and not related to sexual orientation and sexuality. Some believe their gender identity and how they express it are phenomenon that are entirely separate from what gender they find most sexually attractive or how their desires manifest. While others find it impossible to separate these threads. It is not uncommon, for example, for a heterosexual man to understand his gender identity in terms of his attraction to women i.e. "I'm a man because I like women." The fact that there are women who like women doesn't seem to affect how he sees his sexual orientation as an aspect of his gender identity.

Transgender and intersex people often find themselves navigating a world of sexual orientations that doesn't fully acknowledge their existence. Most cisgender people don't stop to consider if their own sexual orientation is grounded in the gender identity and expression or the physiological characteristics of the people they find attractive until they find themselves attracted to a transgender or intersex person. Consequently transgender people have sexual and/or romantic relationships with people who identify as straight, gay, bisexual, pansexual, asexual, queer or simply prefer not to categorize their orientation.

Transgender and gender non-conforming people can have any sexual orientation and sexuality that cisgender and gender-conforming people can have. A common myth or misunderstanding is that a person who is gender non-conforming must be gay and that a person who is transgender is that concept taken "further." This misunderstanding likely arises from four sources. First, there is a strong tradition of accepted and celebrated gender non-conformity amongst gay/lesbian/bi/pan/queer people compared to heterosexual people. Second, the homophobic misinterpretation of gender transition as an escape from homosexuality. Third, the heterosexual cisgender person's conflation of their own sexual orientation with their gender identity as mentioned previously. Finally, trans people who do not undergo medical and/or legal gender transition and who are attracted to people of a different gender identity from their own are generally perceived as a gay or lesbian with the same legal rights (or lack thereof) as gay men and lesbians.

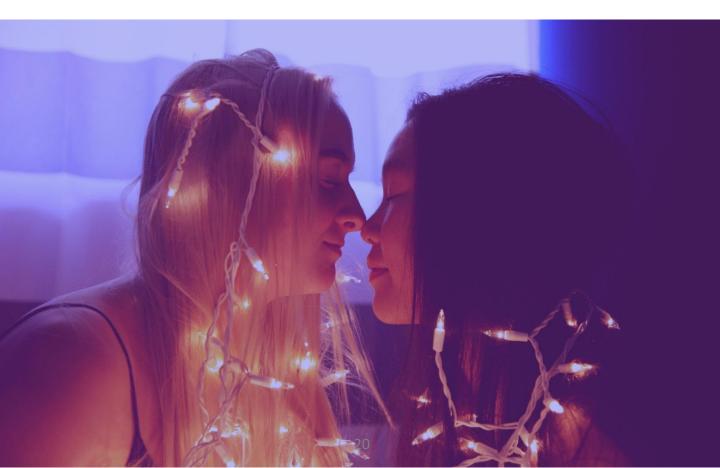


Around half of transgender people studied describe their sexual orientation as bisexual/pansexual/queer (Meier 2013). Transgender people are also more likely to experience changes in their sexual orientation than cisgender people with 22-64% of transgender people reporting change in sexual orientation following social and/or physical gender transition (Lawrence 2005; Meier et al. 2013; Auer et al. 2014; Katz-Wise, et al. 2015).

For an academic discussion of studies on gender identity and sexual orientation please see Roi Jacobson and Daphna Joel (2018). *Self-Reported Gender Identity and Sexuality in an Online Sample of Cisgender, Transgender and Gender-Diverse Individuals: An Exploratory Study*. The Journal of Sex Research, 00:00, 1-15.

References

- Auer, M., Fuss, J., Höhne, N., Stalla, G. and A. Sievers. (2014). Transgender Transitioning and Change of Self-Reported Sexual Orientation. *PLoS ONE*, 9:10, e110016.
- Katz-Wise, S., Reisner, S., Hughto, J. and C. Keo-Meier (2015). Differences in Sexual Orientation Diversity and Sexual Fluidity in Attractions Among Gender Minority Adults in Massachusetts. *The Journal of Sex Research*, 53:1, 74-84.
- Lawrence, A. (2005). Sexuality Before and After Male-to-Female Sex Reassignment Surgery. *Archives of Sexual Behavior*, 34:2, 147-166.
- Meier, S., Pardo, S., Labuski, C. and J. Babcock (2013). Measures of Clinical Health among Female-to-Male Transgender Persons as a Function of Sexual Orientation. *Archives of Sexual Behavior*, 42:3, 463-474.



How many students are transgender?

The percetage of the population whose gender identity is incongruent with the sex they were assigned at birth is not known. Estimates based on the number of people who access gender affirming healthcare, change their legal sex and legal name hover around 0.3-0.5%. However, not all transgender people choose to undergo such procedures. Additionally, there may be several barriers to accessing these procedures such as fears of losing a job, partner or custody of children. According to a European Union report, the estimated percentage of transgender people in the population is 0.5-1.1% of people have a gender identity that is incongruent with the sex they were assigned at birth and 1.9-4.6% experience ambivalence about their gender identity (European Union Agency for Fundamental Rights 2014). A survey by the American campaign group GLADD found that 12% of millennials (ages 18-34) reported identifying as transgender, gender non-conforming or questioning their gender identity which is double the number of Generation X respondents who said the same (GLAAD 2016). A similar survey conducted byYouGov in the UK reported 43% of 18 - 24-year-olds identifying as non-binary (Dalhgreen and Shakespeare 2015).

As rights for transgender people advance and awareness about gender identity becomes more widespread, the number of transgender people coming out is increasing. According to the Swedish article, *Five Things You Didn't Know About Trans people (Fem Saker Du Inte Visste Om Transpersoner),* 1365 individuals in Sweden received a trans-related diagnosis to access gender confirming healthcare in 2013, which was three times as many as in 2007 (Krantz 2016). Additionally, the Swedish newspaper *Aftonbladet* reported that the number of new children and youth seeking gender confirmation healthcare at Astrid Lindgren's children hospital in Stockholm was 197 in 2016, an increase of 100% from 2015 (Söderlund 2017).

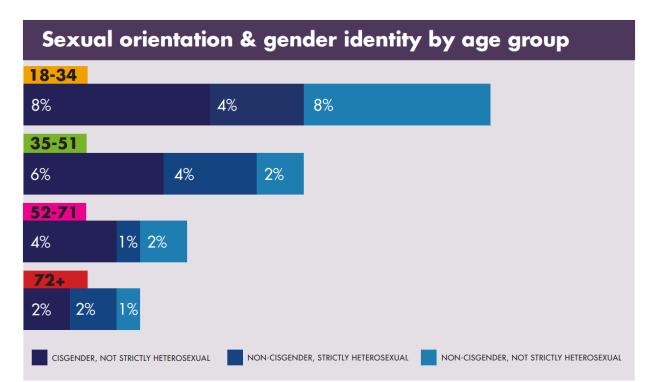
In terms of transgender diversity, the 2015 Swedish survey of 1194 transgender respondents reported that 47% respondents identified as transgender (*transperson*), 37% transsexual (*transsexuell*), 31% intergender, 16% transvestite (*transvestit*), 7% unsure (*osaker*), 6% as having a transsexual history (*före detta transsexuell*), 5% as other (*annat*) and 0.1% didn't want to say (*vill inte ange*) (Fokhälsomyndighten 2015). Respondents were permitted to choose more than one option.

According to the European Union report cited above, 53% of transgender respondents were highly educated (college, university or higher degrees). A quarter of the respondents were students. Close to a third (29%) of transgender students reported feeling discriminated against by school or university personnel in the 12 months preceding the survey and 28% reported that they often or always experienced negative comments or conduct at school because they are transgender.

References

- Dahlgreen, W. and Shakespeare, A. (2015). 1 in 2 young people say they are not 100% heterosexual. YouGov. Available online at https://yougov.co.uk/topics/lifestyle/articles-reports/2015/08/16/halfyoung-not-heterosexual. Accessed 2018-11-19.
- European Union Agency for Fundamental Rights (2014). *Being Trans in the European Union: Comparative analysis of EU LGBT survy data*. Available online at *https://fra.europa.eu/en/publication/2014/being -trans-eu-comparative-analysis-eu-lgbt-survey-data*. Accessed 2018-11-19.
- Folkhälsomyndigheten (2015). Hälsan och hälsans bestämningsfaktorer för transpersoner: en rapport om hälsoläget bland transpersoner i Sverige.
- GLAAD (2017). Accelerating Acceptance: A Harris Poll survey of Americans' acceptance of LGBTQ people. Available online at https://www.glaad.org/files/aa/2017_GLAAD_Accelerating_Acceptance.pdf. Accessed 2018-11-19. Krantz, S. (2016). Fem Saker Du Inte Visste Om Transpersoner. Ungdomer. Available online at
- https://ungdomar.se/blogg/fem-saker-du-inte-visste-om-transpersoner. Accessed 2018-11-19.
- Söderlund, F. (2017). *Transutredningar bland unga ökar med 100 procent varje år*. Aftonbladet. Availble online at https://www.aftonbladet.se/nyheter/a/loQd9/transutredningar-bland-unga-okar-med-100-procent--varje-ar. Accessed 2018-11-19.

Data on the gender identity and sexual orientation of 1,927 American survey respondents in 2016 organized by age group.



	18-34	35-51	52-71	72+
Cisgender	88%	94%	97%	97 %
Agender	3%	>0.5%	>0.5%	1%
Gender fluid	3%	1%	-	-
Transgender	2%	1%	>0.5%	-
Unsure/ questioning	2%	3%	2%	2%
Bigender	1%	>0.5%	1%	-
Genderqueer	1%	1%	-	-

GLAAD (2017). Accelerating Acceptance: A Harris Poll survey of Americans' acceptance of LGBTQ people. Available online at

https://www.glaad.org/files/aa/2017_GLAAD_Accelerating_Acceptance.pdf. Accessed 2018-11-19.

Biology and Gender Identity



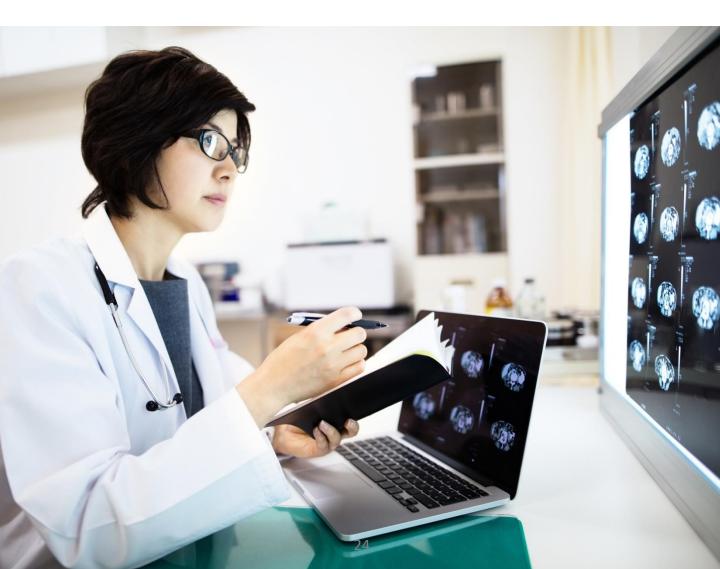
For comprehensive review see:

- Gooren, L. (2006) The biology of human psychosexual differentiation. *Hormones and Behavior*, 50:4, 589-601.
- Polderman et al. (2018) The Biological Contributions to Gender Identity and Gender Diversity: Bringing Data to the Table. *Behavior Genetics*, 48, 95-108
- Saraswat et al. (2014) Evidence Supporting the Biologic Nature of Gender Identity. *Endocrine Practice*, 21:2, 199-204.

Exploring a biological explanation for gender dysphoria or transgender identity is controversial. Equality activists point out that pin-pointing a biological origin for gender identity is not necessary to accept the existence of gender diversity. Despite minimal evidence of a biological explanation for homosexuality in humans, mainstream Swedish society no longer views homosexuality as a lifestyle choice, but as a component of human diversity. This shift in thinking occurred without contributions from biologists searching for a so-called "gay gene." However, the belief that gender identity has a biological explanation does contribute to greater positivity toward equality for transgender people (Landén and Inalla 2000).

Biologists, as a general rule, are very curious about biological variation, both the nature of it and the mechanisms behind it. As the intended audience for this text is biologists, it is expected that the reader is interested in what research there is on this topic. However, conducting research that aims to elucidate the origin of gender identity is not only politically controversial but fraught with a history of previous attempts that included ethical violations.

Landén, M. and S. Innala (2000). Attitudes toward transsexualism in a Swedish national survey. *Archives of Sexual Behavior*, 29, 375–388.



Knowledge on gender identity from studies on differences in sexual development

There are several variations that fall under the broad category of differences in sexual development, also called intersex, which include sexual reproductive organs that cannot be classifed as distinctly male or female, sexual genotypes with atypical phenotypes, and genotypes that are not 46,XX or 46,XY.

Historically individuals born with the XY genotype but atypical genitals due to conditions that inhibit the synthesis of testosterone or its conversion to dihydrotestosterone, or other unknown underlying factors, were frequently raised as girls and even surgically altered in infancy to give an appearance of female genitals. Studies comparing these cohorts, the general population, and cohorts of XY genotyped individuals with similar conditions who were not surgically altered or raised as girls, present strong evidence that one's gender identity is not solely a product of socialization, sex chromosomes or genitals. (Meyer-Ballburg et al. 2004, Reiner and Gearhard 2004). Furthermore, individuals born with an XX genotype and congenital adrenal hyperplasia (CAH) a condition which results in a higher than average production of androgens during fetal development, more frequently struggle with their gender identity or identify as male and transition to living as men compared to those with XX genotypes who do not have CAH (Dessens et al. 2005). These results together with what is known about those who have the XY genotype but inhibited prenatal testosterone production have led to the hypothesis that gender identity is influenced by hormones during fetal development (Cohen-Kettenis 2005).

References

- Meyer-Bahlburg, H., Migeon, C., Berkovitz, G., Hearhart, J., Dolezal, C. and Wisniewski, A. (2004). Attitudes of adult 46, XY intersex persons to clinical management policies. *Journal of Urology*, 171: 4, 1615-1619.
- Reiner, W. and Gearhart, J. (2004). Discordant sexual identity in some genetic males with cloacal exstrophy assigned to female sex at birth. *New England Journal of Medicine*, 350, 333-341.
- Dessens, A., Slijper, F. and Drop, S. (2005). Gender dysphoria and gender change in chromosomal females with congenital adrenal hyperplasia. *Archives of Sexual Behavior*, 34:4, 389-397.
- Cohen-Kettenis, P. (2005). Gender change in 46,XY persons with 5 alpha-reductase-2 deficiency and 17 beta-hydroxysteroid dehydrogenase-3 deficiency. *Archives of Sexual Behavior.*, 34: 4, 399-410.

Knowledge on gender identity from medical studies on transgender people

One of the current hypotheses on the biological origin of gender identity, places it in the sexual differentiation of the brain. Sexual differentiation of the brain and sexual organs during fetal development are asynchronous which allows for the possibility of a transgender-specific neurological phenotype (Swaab 2007 and Zhou et al. 1995). Several studies comparing neuroanatomical features of the brains of transgender people with cisgender controls, show either stronger similiarities with the sex that matches the transgender person's gender identity or deviate from the controls in other ways (Bao and Swaab 2011; Kruijver et al. 2000; Chung et al. 2002; Garcia-Falgueras and Swaab 2008; Luders et al. 2009; Zubiaurre-Elorza et al. 2013; Simon et al.2013; Savic and Arver 2001). Additionally, a study on sex-differentiated hypothalamic response to olfactory stimulii and a study on cerebral activation in response to erotic stimulii both showed that the response of transgender women who had not received hormone treatment was similar to that of cisgender women (Berglund et al. 2008 and Gizewski et al. 2009). Furthermore there is some evidence that genetic factors play a role in the formation of gender identity in transgender people. This evidence is the result of twin studies, sex-steroid related genes, neuroproteins and prenatal exposure to xenobiotics (Bentz et al. 2007; Bentz et al. 2008; Henningsson et al. 2005; Hare et al. 2009; Ujike et al. 2009; Coolidge et al. 2002; Heylens et al. 2012; Dessens et al. 1999; Kerlin 2014).

Recent neurological investigations into the mechanism behind gender dysphoria present an alternative hypothesis. These studies found little sex-atypical differentiation in the brains of transgender subjects, but did identify a separate neuroanatomical signature for the intense distress experienced by some trans people that the body and/or social experience is incongruent with one's gender identity. Transgender subjects, prior to receiving gender confirmation healthcare treatments, differed significantly from cisgender subjects in the right inferior fronto-occipital tract, revealing disconnection between the neural networks that process self-perception and those that mediate the perception of body ownership (Manzouri et al. 2017; Feusner et al. 2017; Burke et al. 2017). A longitudinal study on the treatment of gender dysphoria with gender-confirming hormone therapy showed that treatment resulted in significant functional and structural changes in these networks (Burke et al. 2018).

References

Bao, A. and D. Swaab (2011). Sexual differentiation of the human brain: relation to gender identity, sexual orientation and neuropsychiatric disorders. *Frontiers in Neuroendocrinology*, 32, 214-.226.

Bentz, E., Hefler, L., Kaufmann, U., Huber, J., Kolbus, A., and C.Tempfer (2008). A polymorphism of the CYP17 gene related to sex steroid metabolism is associated with female-to-male but not male-tofemale transsexualism. *Fertility and Sterility*, 90:1, 56-59. Bentz, E., Schneeberger, C., Hefler, L., van Trotsenburg, M., Kaufmann, U., Huber, J., and C. Tempfer (2007). A common polymorphism of the SRD5A2 gene and transsexualism. *Reproductive Science*,14:7, 705-709.
Berglund, H., Lindström, P., Dhejne-Helmy, C. and I. Savic. (2008). Male-tofemale transsexuals show sex-atypical hypothalamus activation when smelling odorous steroids. *Cerebral Cortex*, 18:8, 1900-1908. Burke, S., Manzouri, A., Dhejne, C., Bergström, K., Arver, S., Feusner, J., and I. Savic-Berglund (2018).
Testosterone Effects on the Brain in Transgender Men. *Cerebral Cortex*, 28:5, 1582-1596.

Burke, S., Manzouri, A., and I. Savic (2017). Structural connections in the brain in relation to gender identity and sexual orientation. *Scientific Reports*, 7, e17954.

Chung, W., De Vries, G., and D. Swaab (2002). Sexual differentiation of the bed nucleus of the stria terminalis in humans may extend into adulthood. *Journal of Neuroscience*, 22, 1027-1033.

Coolidge, F., Thede L., and S. Young. (2002). The heritability of gender identity disorder in a child and adolescent twin sample. *BehaviorGenetics*, 32,:4, 251-257.

Dessens, A., Cohen-Kettenis, P., Mellenbergh, G., vd Poll, N., Koppe, J., and K. Boer. (1999). Prenatal exposure to anticonvulsants and psychosexual development. *Archives of Sexual Behavior*, 28:1, 31 -44.

Feusner, J., Lidström, A., Moody, T., Dhejne, C., Bookheimer, S. and Ivanka Savic. (2017). Intrinsic network connectivity and own body perception in gender dysphoria. *Brain Imaging Behavior*, 11:4, 964 -976.

Garcia-Falgueras, A., and D. Swaab (2008). A sex difference in the hypothalamic uncinate nucleus: relationship to gender identity. *Brain*, 131, 3132-3146.

Gizeweski, E., Krause, E., Schlamann, M., Happich, F., Ladd, M., Forsting, M., and W. Senf. (2009). Specific cerebral activation due to visual erotic stimuli in male -to-female transsexuals compared with male and female controls: an fMRI study. *Journal of Sexual Medicine*, 6:2, 440-449.

Hare, L., Bernard, P., Sáncez, F., Baird, P., Vilain, E., Kennedy, T., and V. Harley. Androgen Receptor Repeat Length Polymorphism Associated with Maleto-Female Transsexualism. *Biological Psychiatry*, 65:1, 93-96.

Hennigsson, S., Westberg, L., Nilsson, S., Lundström, B., Ekselius, L., Bodlund, O., Lindström E., Hellstrand, M., Rosmond, R., Eriksson, E., and M. Landén (2005). Sex steroid-related genes and male-to-female transsexualism. *Psychoneuroendocrinology*, 30:7, 657 -664.

Heylens, G., De Cuypere, G., Sucker, K., Schelfaut, C., Elaut, E., Vanden Bossche, H., De Baere, E., and G. T'Sjoen (2012). Gender identity disorder in twins: a review of the case report literature. Journal of Sexual Medicine, 9:3, 751-757.

Kerlin, S. (2005). Prenatal Exposure to Diethylstilbestrol (DES) in Males and Gender-Related Disorders: Results from a 5-year Study. Available at: https://www.researchgate.net/profile/Scott_Kerlin. Accessed 2018-11-16. Kruijver, F., Zhou, J., Pool, C., Hofman, M., Gooren L., and D. Swaab. (2000). Male-to-female transsexuals have female neuron numbers in a limbic nucleus. *Journal of Clinical Endocrinology and Metabolism*, 85, 2034-2041.

Luders, E., Sánchez, F., Gaser, C., Toga, A., Narr, K., Hamilton, L., and E. Vilain (2009). Regional gray matter in male-to-female transsexualism. *Neuroimage*, 46:4, 904-907.

Savic, I. and S. Arver. (2011). Sex dimporphism of the brain in male-to-female transsexuals. *Cerebral Cortex*, 21:11, 2525-2533.

Simon, L., Kozák, L., Simon, V., Czobor, P., Unoka, Z., Szabó, À., and G. Csukly (2013). Regional Grey Matter Structure Differences between Transsexuals and Healthy Controls—A Voxel Based Morphometry Study. *PLOS One*, 8:e83947.

Swaab, D. (2007). Sexual differentiation of the brain and behavior. *Best Practice and Research: Clinical Endocrinology and Metabolism*, 21, 431-444.

Ujike, H., Otani, K., Nakatsuka, M., Ishii, K., Sasaki, A., Oishi, T., Sato, T., Okahisa, Y., Matsumoto Y., Namba, Y., Kimata, Y., and S. Kuroda. (2009). Association study of gender identity disorder and sex hormone-related genes. *Progress in Neuropsychopharmacology and Biological Psychiatry*, 33:7, 1241-1244.

Zhou, J., Hofman, M., Gooren, L., and D. Swaab (1995). A sex difference in the human brain and its relation to transsexuality. *Nature*, 378, 68-70.

Zubiaurre-Elorza. L., Junque, C., Gómez-Gil, E., Segovia, S., Carrillo, B., Rametti, G., and A. Guillamon (2013). Cortical thickness in untreated transsexuals. *Cerebral Cortex*, 23:12, 2855-2862.

Defining biological sex

In most situations, particularly outside of medical settings, it is not appropriate to describe the bodies of transgender people according to the sex they were assigned at birth. For example, it is not appropriate to describe a transgender woman as being male, male-bodied, having a male body or as "biologically male." Since hormone treatments, surgical procedures and other forms of medically-assisted gender affirming measures can alter the sexual characteristics of transgender individuals who undergo them, it is not uncommon for transgender people to biologically embody sexual characteristics typically associated with the gender they identify as, both binary sexes and/or neither binary sex. This raises the question what is the biological sex of a transgender person? And importantly, what, exactly is meant by the words "biological sex?"

The answers to those questions depends on the context in which they are being asked. In a medical setting, a doctor must think about risk factors and drug doseages not in terms of binary gender, but in terms of hormone levels, specific organs, social roles and what ever other factors the gender differences in diagnosis or treatment are based. For example, factors associated with the biological sex "female" might apply to a transgender man if he still has a cervix and the context is a discussion on factors related to cervical cancer. Whereas factors associated with the biological sex "male" might apply to a transgender man if his testosterone levels have been 800 ng/dL for the past ten years and he is showing symptoms of hypertension.

While media outlets continue to refer to trans women as "born men" or "biologically male" and trans men as "born women" or " biologically female" this phrasing is generally considered offensive and hurtful to transgender people not only because it is inaccurate but also because it sets a false identity in focus. First, as discussed above, the sexual attributes one is born with say very little about the current state of a transgender person's "biological sex." Secondly, it is important to remember that everyone is born a baby, not a full grown man or woman. Thirdly, transgender people who transitioned pre-adolescence or during adolescence have never lived as adults as the gender associated with the sex they were assigned at birth physiologically and/or socially. Finally, transgender people tend to go through significant effort and sacrifices to have their gender identity publicly recognized; referral to them in terms of the sex they were assigned at birth undermines all of that effort and is a refusal to recognize them as fully belonging to the gender they identify as. In Sweden, a trans person who has changed their legal gender is entitled by law to full recognition in society as their new legal gender.

Sometimes it is necessary or desired to communicate that someone is transgender, in which case the best way to do that is to use the terms *transgender* or *trans* and then specify the person's identified gender (man, woman or non-binary). For example, "Jennifer is a transgender woman" is more appropriate and accurate than "Jennifer is biologically male."

Few topics inspire the general public's memory of biology class quite like the participation of transgender and intersex people in competitive sports.

In 2014, a competitive CrossFit athlete made headlines for filing a discrimination suit after she was outed as transgender by another member and subsequently disqualified from competing as a woman. In this case, "outing" means that she was assigned male at birth, had transitioned to life as a woman, regarded her birth sex assignment as private information and then someone made that knowledge public without her consent. CrossFit's attorney defended the policy by citing the fundamentals of biology that are taught in schools.

Sporting associations around the world hold a wide variety of different policies that determine the participation of transgender and intersex athletes. In an ideal world, only the nature and extent of a transgender individual's gender dysphoria would determine the nature and extent of one's medical transition, however, the competitive athlete must also take into consideration the role of sport in their life and the policies governing participation in that sport. As a result, some transgender athletes choose to delay physical transition or not physically transition at all and some trans and intersex athletes feel compelled to undergo what would otherwise be for them unnecessary medical interventions.

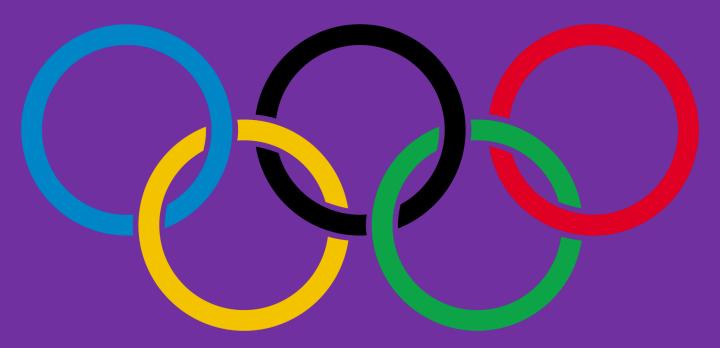
Conversations and consequently, policies, on the participation of transgender and intersex athletes tend to focus on fairness and almost exclusively on fairness in women's sports (Sykes 2006). The concept of fairness is described with the cisgender woman in focus- do women athletes who are trans or intersex impinge on the cisgender woman's access to a level playing field (Genel 2017; Reeser 2005)? Policies shaped on physiological equivalency hinge on the limited data available on the effects of hormone treatments and gender confirmation surgeries on fat, muscle mass and strength (Gooren 2004). For a full review of biological sex differences that are the result of sex chromosomes alone compared to those determined by circulating sex hormones in utero, during puberty or in adulthood please see Gooren et al. 2014.

However, there are inherent difficulties in using biological data to solve, what has been aptly described as a cultural problem (Gould 2008). Furthermore, philosophical arguments for the inclusion of transgender and intersex athletes point out that equality between competitors is not a defining characteristic of sport, rather the oppositie- sport is a celebration of physiological inequality (Gleaves and Lehrbach 2016).

In 2018, CrossFit adopted a new inclusive policy permitting all athletes to compete in the class that is in accordance with their gender identity.

References and recommended reading on the participation of transgender and intersex athletes in competitive sports

- Bostwick, J. M. and Joyner, M. 2012. The Limits of Acceptable Biological Variation in Elite Athletes: Should Sex Ambiguity Be Treated Differently from Other Advantageous Genetic Traits? *Mayo Clinic Proceedings*, 87:6, 508-513.
- Genel, M. 2017. Transgender Athletes: How Can They Be Accommodated? *Current Sports Medicine Reports*, 16:1, 12-13.
- Gleaves, J. and Lehrbach, T. 2016. Beyond fairness: the ethics of inclusion for transgender and intersex athletes. *Journal of the Philosophy of Sport*, 43:2, 311-326
- Gooren, L. and Bunck., M. 2004. Transsexuals and competitive sports. *European Journal of Endocrinology*, 151, 425-429
- Gooren, L., Kreuekls, B., Lapauw, B., and Giltay, E. 2014. (Patho)physiology of cross-sex hormone administration to transsexual people: the potential impact of male-female genetic differences. *Andrologia*, 47:1 5-19.
- Gould, S. 2008. *The Mismeasure of Man*. (Rev. and Expanded, with a New introduction ed.) New York, NY: W.W. Norton.
- Karkazis, K., Jordan-Young, R., Davis, G. and Camporesi, S. 2012. Out of Bounds? A Critique of the New Policies on Hyperandrogenism in Elite Female Athletes." *The American Journal of Bioethics*, 12:7, 3-16.
- Reeser, J. 2005. Gender identity and sport: is the playing field level?. *British Journal of Sports Medicine*, 39, 695-699.
- Sykes, H. 2006. Transsexual and Transgender Policies in Sport. *Women in Sport and Physical Activity Journal*, 15:1, 3-13.
- Wahlert, L., and Fiester, A. 2012. Gender Transports: Privileging the 'Natural' in Gender Testing Debates for Intersex and Transgender Athletes. *The American Journal of Bioethics*, 12:7, 19-21.



International Olympic Committee Consensus Meeting on Sex Reassignment and Hyperandrogenism, November 2015

Transgender guidelines

A. Since the 2003 Stockholm Consensus on Sex Reassignment in Sports, there has been a growing recognition of the importance of autonomy of gender identity in society, as reflected in the laws of many jurisdictions worldwide.

B. There are also, however, jurisdictions where autonomy of gender identity is not recognised in law at all.

C. It is necessary to ensure insofar as possible that trans athletes are not excluded from the opportunity to participate in sporting competition.

D. The overriding sporting objective is and remains the guarantee of fair competition. Restrictions on participation are appropriate to the extent that they are necessary and proportionate to the achievement of that objective.

E. To require surgical anatomical changes as a pre-condition to participation is not necessary to preserve fair competition and may be inconsistent with developing legislation and notions of human rights.

F. Nothing in these guidelines is intended to undermine in any way the requirement to comply with the World Anti-Doping Code and the WADA International Standards.

G. These guidelines are a living document and will be subject to review in light of any scientific or medical developments. In this spirit, the IOC Consensus Meeting agreed the following guidelines to be taken into account by sports organisations when determining eligibility to compete in male and female competition:

- 1. Those who transition from female to male are eligible to compete in the male category without restriction.
- 2. Those who transition from male to female are eligible to compete in the female category under the following conditions:

2.1. The athlete has declared that her gender identity is female. The declaration cannot be changed, for sporting purposes, for a minimum of four years.

2.2. The athlete must demonstrate that her total testosterone level in serum has been below 10 nmol/L for at least 12 months prior to her first competition (with the requirement for any longer period to be based on a confidential case-by-case evaluation, considering whether or not 12 months is a sufficient length of time to minimize any advantage in women's competition).

2.3. The athlete's total testosterone level in serum must remain below 10 nmol/L throughout the period of desired eligibility to compete in the female category.

2.4. Compliance with these conditions may be monitored by testing. In the event of non-compliance, the athlete's eligibility for female competition will be suspended for 12 months.

Hyperandrogenism in female athletes

In response to the interim award dated 24 July 2015 in <u>Chand v AFI and IAAF</u>CAS 2014/A/3759, the IOC Consensus Meeting recommended:

- Rules should be in place for the protection of women in sport and the promotion of the principles of fair competition.
- The IAAF, with support from other International Federations, National Olympic Committees and other sports organisations, is encouraged to revert to CAS with arguments and evidence to support the reinstatement of its hyperandrogenism rules.
- To avoid discrimination, if not eligible for female competition the athlete should be eligible to compete in male competition

The international standards of care for clinical treatment of gender dysphoria were established by the World Professional Association for Transgender Health. The goal of the treatmeant outlined in the standards of care is "lasting personal comfort with the gendered self to maximize overall health, psychological well-being, and self-fulfillment" (WPATH 2011).

Intense gender dysphoria meets criteria for psychiatric diagnosis found in the Diagnositic Statistical Manual of Mental Disorders and the International Classification of Diseases. It is not the person's gender identity itself that is considered to be disordered but the distress that can be associated with gender dysphoria is diagnosable and treatable. However, whether or not variations in gender identity and associated gender dysphoria should be classified as psychopathology or natural variation has been a topic of heated debate (Meyer-Bahlburg 2009). Gender dysphoria is phenomenologically different from delusions, psychosis and other psychotic disorders or psychiatric illnesses (WPATH 2011). Pharmacological and psychotherapy treatments with the goal of reducing or eliminating gender dysphoria by "correcting" the individual's gender identity have been proven to be utterly ineffective (Capetillo-Ventura et al. 2015). Clinical facilitation of physical changes in sexual characteristics, however, is highly effective in relieving gender dysphoria with satisfaction rates of 87-97% and incidence of regret below 1.5% (Green and Fleming,1990; Pfäfflin, 1993). Furthermore, hormone therapy and gender affirming surgeries have been found to be medically necessary in the treatment of gender dysphoria in many cases (American Medical Association, 2008; Cohen-Kettins and Gooren, 1999).

There is a wide variety of medical and non-medical options available to relieve the distress of gender dysphoria. This section will briefly summarize some of these options. It is important to remember that there is not a "one-size-fits-all" approach to treating gender dysphoria, but rather treatment is individualized (Bockting and Goldberg, 2006). One individual may experience intense gender dysphoria about their genitals and need genital reconstruction surgery to feel well and healthy, whereas another individual may have no gender dysphoria about their genitals, but experience distress about the gendered aspects of their face and choose only facial reconstruction surgery in order to feel well and healthy.

Someone who is transgender may feel entirely comfortable with their body, but choose to employ these methods for social reasons in order for others to "see" and respect their gender identity. Whereas another transgender person may experience extreme distress in their body and choose to employ the same methods to relieve themselves of their own private experience of gender dysphoria with little regard to the social aspect. For others the decision may be motivated by both the social and personal experiences.

It is also important to remember that doctors in Sweden and many other jurisidictions require transgender people to live fully in society in the social role of their gender identity for a minimum of 12 months before permitting genital reconstruction surgery. Therefore, it is frequently not possible for an individual to wait until after such a procedure has been done before socially transitioning.

References

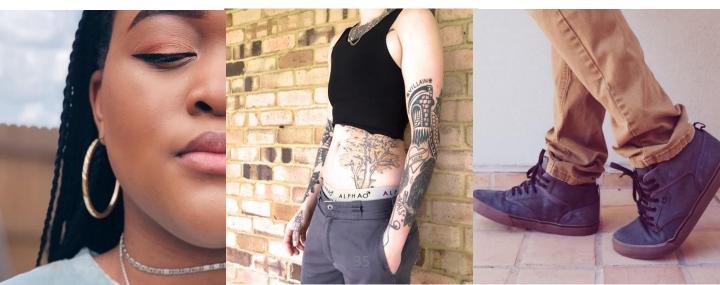
- Bockting, W. and Goldberg, J. (2006). *Guidelines for Transgender Care*. Haworth Medical Press, Binghamton, NY.
- Cohen-Kettenis, T. and Gooren, L. (1999). Transsexualism: a review of etiology, diagnosis and treatment. *Journal of Psychosomatic Research*, 46:4, 315-333.
- Green, R. and Fleming, D. (1990). Transsexual Surgery Follow-Up: Status in the 1990s. *Annual Review of Sex Research*, 1:1, 163-174.
- Meyer-Bahlburg, H. (2010). From Mental Disorder to Iatrogenic Hypogonadism: Dilemmas in Conceptualizing Gender Identity Variants as Psychiatric Conditions. *Archives of Sexual Behavior*, 39:2, 461-476.
- Pfäfflin, F. (1993). Regrets After Sex Reassignment Surgery. *Journal of Psychology and Human Sexuality*, 5:4, 69-85.
- The World Professional Association for Transgender Health (WPATH) (2011). Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People. 7th Version. Available online at http://www.wpath.org. Accessed 2018-11-01.
- Capetillo-Ventura, N., Jalil-Pérez, S. and Motilla-Negrete, K. (2015). Gender dysphoria: An overview. *Medicina Universitaria*, 17:66, 1-68.
- American Medical Association (2008). Resolution 122, Removing barriers to care for transgender patients. Available online at imatyfa.org/assets/ama122.pdf. Accessed 2018-11-20.



Non-medical gender affirming practices

There are several obvious and less obvious ways an individual may alter their gender expression to align more closely with their gender identity and/or relieve the distress of gender dysphoria that do not require assistance from a medical professional. One may choose make-up, clothing, accessories and hairstyles that are strongly associated with a certain gender (or no gender), but one may also choose to change the way their body shapes their clothes. For example, the appearance of a flat chest can be achieved by binding the breasts with specialized compression vests called binders and the shape of breasts and nipples can be achieved with silicone breast forms. External genitalia can be hidden with a method called tucking, and specialized silicone and/or latex genitalia can also be worn. Flacid prosthetic penises are available for daily wear and erect ones are available for sexual purposes.

One may choose non-medical body modifications such as tattoos, piercings or hair removal/growth. Facial or body hair can be removed temporarily or permanently by shaving, epilation, electrolysis or laser removal, and one may also choose to allow their natural facial hair and body hair to grow. Bodies vary considerbly in their expression of gendered traits, particularly across different ethnicities— some individuals who are assigned male at birth do not grow up to be very hairy whereas some individuals who are assigned female at birth do. Cisgender people, particularly cisgender women, express a tendency to alter their natural appearance in order to present closer to a standardized gender norm. For example, a cisgender woman with polycystic ovary syndrome may choose to regularly remove the thick facial hair that may grow naturally as a result of this condition. Transgender men have a much higher incidence of polysistic ovary syndrome compared to cisgender women, which results in the ability of many transgender men to grow significant facial without medical hormone treatment. This may also apply to body hair which cisgender women have a tendency to remove in many cultures. For example, a transgender man may choose not to shave his legs or armpits. In this case, a gender affirming practice may be to allow natural traits to present themselves.



Gender affirming hormone therapies

The SRY gene on the Y choromsome determines sexual differentiation of the developing human fetus in utero. Subsequent steps in sexual differentiation however are determined by the hormones produced by the gonads. Some of these steps are permanent (the development of the uro-genital tract) whereas others rely on hormonal maintence and can be changed by pharmacologically administering a new hormonal environment.

Testosterone can be prescribed as a masculinizing hormone and administered as an intramuscular injection, transdermal gel and less commonly as implanted intramuscular pellets or subcutaneous injections. Administration of testosterone stops the body's typical estrogen and progesterone production. Physical effects include skin oiliness, facial/body hair growth, scalp hair loss, increased muscle mass/strength, body fat redistribution, cessation of menses, clitoral enlargement, vaginal atrophy and deepened voice. Similar to natural puberty, the onset of effects occurs within 1-12 months and maximum effects are generally expected within 5 years. Treatment must be continued in order to maintain masculinization as most of the changes are reversible. Likely increased risks associated with masculinizing hormones include polycythemia, weight gain, acne, balding, and sleep apnea.

Estrogen can be prescribed as a feminizing hormone along with anti-androgens as administration of estrogen does not stop the body's typical testosterone production. Sometimes a progestogen is also prescribed. Anti-androgens can also be prescribed alone for those desiring a more androgenous body. Estrogen is administered as a pill, transdermal patch or gel, or intramuscular injection and anti-androgens are administered as pills. Feminizing effects include body fat redistributiuon, nipple and breast growth, decreased muscle mass/strength, softening of skin/decreased oiliness, decreased libido, decreased spontaneous erections, decreased erectile function, decreased testicular size, decreased sperm production, thinning and slowed growth of body and facial hair, and cessation of scalp hair loss. Similar to natural puberty, the onset of effects occurs within 1-12 months and maxium effects are generally expected within 5 years. Treatment must be continued in order to maintain feminization as most of the changes are reversible.

It is worth mentioning that sex hormone receptors are abundant in the brain and therefore hormone therapies do have effects on the brain as well. The effects of gender affirming hormone therapies on the brains of trans people are largely understudied, however Kreukels and Guillamon 2015 provides a review of what information is known.

See page 39 for references.

Gender affirming surgeries

Gender affirming surgeries aim to reduce gender dysphoria by changing gendered aspects of the body.

Masculinizing Procedures

Masculinizing surgical procedures for transgender men and non-binary persons who were assigned female at birth, include removal of the breasts and creation of a typical male chest usually including typical male nipple-areola positioning, the construction of a penis and scrotum, and the removal of the uterus, ovaries, cervix and vagina. The type of chest reconstruction performed depends on the individual's breast size and wishes regarding recovery time, visible scarring and number of necessary operations to complete the procedure.

There are two standard methods for construction of a penis. Testosterone frequently leads to substantial growth of the clitoris which results in natural erecticle capacity and retractable foreskin. In a procedure called metoidioplasty, the enlarged clitoris can then be surgically shaped into a small penis (average length 4-10 cm) and the urethra lengthened so that the person may urinate through the penis. The other procedure is called phalloplasty which requires multiple operations and involves constructing a penis from tissue taken from elsewhere on the body, typically the forearm or the thigh and attaching it in the appropriate location in the groin. The urethra can also be lengethened to allow for urinating through the penis. Today phalloplasty also typically involves connecting nerves in addition to blood vessels so that the new penis is sensate. An erectile device can be implanted for the new penis to be able to achieve erection if desired. The ability to orgasm is preserved with the clitoris either integrated into the base of the new penis or left exposed. A scrotum can be constructed as well with testicular implants; these implants are artificial and do not provide sperm production. Phalloplasty is generally completed with two to three operations spaced several months apart to allow for healing inbetween.

It is typical for an individual to have their original reproductive organs removed to lessen gender dyphoria whether or not the individual later pursues genital reconstruction. However with current genital reconstruction techniques, the removal of the internal reproductive organs is not always necessary from a surgical perspective. The vaginal opening can be preserved in its original position somewhat hidden behind the new penis. The testicular implants can be added without fusing the scrotum so that the vaginal opening is accessible beween the new testicles. However, some surgical techniques involve using vaginal tissue in the construction of the new penis or the lengthening of the urethra. If the vaginal opening is closed without removal of the vagina then removal of the uterus and cervix are recommended and the vaginal lining must ablated to prevent the risk of sepsis.

See page 39 for references.

Feminizing Procedures

Feminizing surgical procedures for transgender women and non-binary persons who were assigned male at birth, include facial feminization, thyroid cartilage reduction, breast augmentation, removal of the testes and construction of a vagina and vulva (clitoris, labia minora, and labia majora).

Hormone therapy usually has a considerable effect on the gendered characteristics of the face, however certain facial features are frequently identified as male and may result in gender dysphoria. These attributes are generally associated with the forehead, nose, jaw and thyroid cartilage (Adam's apple). There are a variety of surgical facial feminization methods available for aligning these features with the individual's gender identity, depending on the specific individual's anatomy and experiences of dysphoria. Hormone therapy also usually results in breast growth although how much varies quite a bit from person to person. If an individual feels that the growth is not sufficient enough to relieve them of gender dysphoria, they may opt for breast augmentation with implants.

There are two general surgical methods for constructing a vagina. One such method is called penile inversion vaginoplasty. This technique disassembles the penis and uses the components to create the new vagina as well as the new vulva (clitoroplasty and labiaplasty). The erectile tissue is removed. The urethra is shortened and the urethral meatus is repositioned. The rest of the urethral tissue together with the skin from the penis shaft are used to create a vagina which is then turned inside out before being inserted and secured in a newly created space between the prostate and rectum. The prostate is left untouched. The glans of the penis is resized to create the clitoris; the nerve bundle remains intact throughout the procedure. Subcutaneous fat is moved to create the mons pubis. The testes are removed and the inner and outer labia tailored from the skin from the scrotum. The new vagina and vulva enable full orgasm and the depth and width of the new vagina accommodates sexual intercourse if desired. This method can be completed in one operation, but Swedish surgeons prefer to complete it in two operations spaced several months apart to allow for healing in between. Another method for constructing a vagina is called rectosigmoid vaginoplasty (also sigmoid colon vaginoplasty). In this procedure, the vagina is created from a segment of the colon and a vulva can be created from components of the penis as described above. The penile inversion method is more common in Western Europe and North American, while the rectosigmoid method is more common in Eastern Europe and Asia.

Vulvoplasty without vaginoplasty is also a feminizing genital reconstruction procedure which removes the penis, scrotum and testes, creates a clitoris and labia, and repositions the urethral opening. In this method, no vagina is created. An individual who has undergone vulvoplasty can choose to undergo the recotsignoid vaginoplasty later if they desire.

See page 39 for references.

References and recommended reading on gender affirming medical treatments

Non-operative treatment of gender dysphoria:

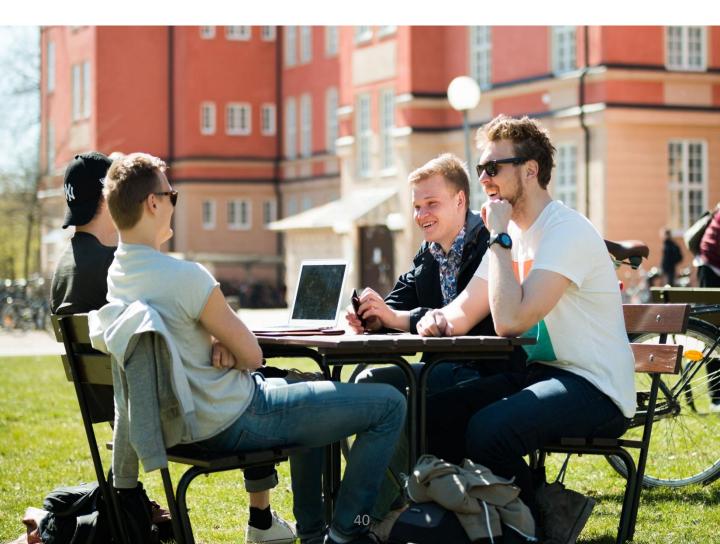
- Coleman, et al. (2012). Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People, Version 7. *International Journal of Transgenderism*, 31: 4, 165-232.
- Hembree, W., Cohen-Kettenis, P., Gooren, L., Hannema, S., Meyer, W., Murad, W., Rosenthal, S., Safer, J., Tangpricha, V., and T'Sjoen, G. (2017). Endocrine Treatment of Gender-Dysphoric/Gender
 -Incongruent Persons: An Endocrine Society Clinical Practice Guideline. *The Journal of Clinical Endocrinology and Metabolism*, 102:11, 3869-3903.
- Kreukels, B. and A. Guillamon. 2016 Neuroimaging studies in people with gender incongruence. International Review of Psychiatry, 28:1, 120-128
- Moussa, M., Ohl, D., and Kuzon, W. (2018). Evaluation and Treatment of Gender Dysphoria to Prepare for Gender Confirmation Surgery. *Sexual Medicine Reviews*, 6:4, 607-617.

Operative treatment of gender dysphoria:

- Amend, B., Seibold, J., Toomey, P., Stenzl, A., and Sievert, K. (2013). Surgical Reconstruction for Male to Female Sex Reassignment. *European Urology*, 64:1, 141-149.
- Bizic, M., Stojanovic, B., and Djordjevic, M. (2017). Genital reconstruction for the transgendered individual. *Journal of Pediatric Urology*, 13:5, 446-452.
- Colebunders, B., Brondeel, S., D'Arpa, S., and S. Monstrey. (2017). An Update on the Surgical Treatment for Transgender Patients. *Sexual Medicine Reviews*, 5:1, 103-109.
- Claes, K., D'Arpa, S., and Monstrey, S. (2018). Chest Surgery for Transgender and Gender Nonconforming Individuals. *Clinics in Plastic Surgery*, 45:3, 369-380.
- Hadj-Moussa, M., Agarwal, S., Ohl, D., and Kuzon, W. (2018). Masculinizing Genital Gender Confirmation Surgery. *Sexual Medicine Reviews*, XX, XXX-XXX.
- Hadj-Moussa, M., Ohl, D., and Kuzon, W. (2018). Feminizing Genital Gender-Confirmation Surgery (Review). *Sexual Medicine Reviews*, 6:3, 457-468.
- Jiang, D., Witten, J., Berli, J., and Dugi, D. (2018). Does Depth Matter? Factors Affecting Choice of Vulvoplasty Over Vaginoplasty as Gender-Affirming Genital Surgery for Transgender Women. *Journal of Sexual Medicine*, 15:6, 902-906.
- Schechter, L. (2016). Gender Confirmation Surgery: An Update for the Primary Care Provider. *Transgender Health*, 1:1, 32-40.

"Even though some of us might wish to conceptualize our classrooms as culturally neutral or might choose to ignore the cultural dimensions, students cannot check their sociocultural identities at the door, nor can they instantly transcend their current level of development... Therefore, it is important that the pedagogical strategies we employ in the classroom reflect an understanding of social identity development so that we can anticipate the tensions that might occur in the classroom and be proactive about them."

Ambrose et. al. (2010). *How Learning Works: Seven Research-based Principles for Smart Teaching*, Jossey-Bass, San Francisco, CA





The modern day science classroom consists of more than students sitting in rows listening to a professor lecture. Higher education today incorporates collaborative learning. Students interact with each other in the classroom and laboratories, discussing and clarifying concepts, finding solutions to problems, and sharing responsibilities. These interactions develop higher-level thinking, improve communication skills and create a sense of community and belonging that improves student retention.

Over also are the days when access to Swedish university classrooms was limited to only white, ablebodied, cisgender, straight, young men of a certain social standing with common traditions and Swedish as a first language. Integration of a diversity of ethnicities, genders, sexual orientations, ages, abilities, economic backgrounds, languages and cultures in the classroom has enormous benefits for student learning, the health of the wider society and the strength of democracy. However, integration is not assimilation. Assimilation places the entirety of the burden of adaption on the newcomer to become more similar to the status quo. The women must become more like men. The child of immigrants must prove every day that she is really Swedish. The flamboyant gay man must "tone it down." Assimilation is oppression and it is a process destined to fail by design. Integration, on the other hand, requires all parties involved to adapt to each other and allow a new paradigm to emerge. Such changes occur seldom without challenges, particularly when privileged groups feel entitled to constancy and are skeptical of integration as a means for mutually beneficial growth. An excerpt from Brielle Harbin (2015) *Teaching Beyond the Gender Binary in the University Classroom*. Published online at cft.vanderbilt.edu.

In an editorial that appeared in the Chronicle of Higher Education, Schmalz (2015) interviewed a dozen students who self-identified as gender nonconforming and found a great amount of anxiety and frustration. Several students expressed their fear of instructors and staff misgendering them or committing other indiscretions. They described their anxiety about being "outed" by professors in their classes and being forced to "come out" every semester when they must talk with faculty about their preferred names or pronouns. One student shared, "Every day it's scary to just be in class, not knowing what people are going to say" (Schmalz 2015).

Julia Schmalz (2015). 'Ask Me': What LGBTQ Students Want Their Professors to Know. *The Chronicle of Higher Education*.

A university classroom is not a socially neutral space, not even in the natural sciences. The social facets of who students are and how they express themselves influence how they collaborate with each other. If one student finds another student repulsive, disgusting, inferior or beyond understanding or empathy, the effects on the learning environment can be profound. A transgender student whose gender is not respected may feel ostracized every time they step into the classroom or that a core element of their identity is simply invisible. Neither of these states is conducive to fostering the deep learning that should coincide with collaborative learning. Gender conforming and cisgender students in the classroom have the privilege of having their gender identities respected without a second thought, without a worry, without even the awareness that their gender identities are safe from debate, scrutiny or disgust. Such students participate in the collaborative classroom environment unhindered by the social contextualization of their gender identities.

Resisting the habit to substitute gender presentation for genital configuration and vice versa

Acknowledging and accepting the presence of transgender and gender non-conforming students in an academic environment means resisting the habit to substitute gender expression for genital configuration and vice versa. We must acknowledge and accept that a person's gender expression does not necessarily convey information about their current or former genitals. Without this acknowledgement and acceptance, transgender students cannot escape the deceiver/pretender double-bind.

A transgender student who does not disclose the fact that their genitals are or have been incongruent with the expectations attached to their gender expression, is seen as deceptive and lives in fear of being "found out." On the other hand, a transgender student who is open about the fact that their genitals are not or have not been in line with the expectations attached to their gender expression, is seen as a pretender and faces resistance from those who prefer not to "play along." The transgender students cannot solve this problem because the problem does not lie with them. The problem lies in the expectations attached to gender expression. When we cease to expect genitals to fall into two discrete categories and for each of those two categories to align with a specific gender expression, the problem disappears.



Instead of reading names from a roster on the first day, ask students to individually present their name and their pronouns.

Teachers around the world have started implementing **pronoun rounds** at the beginning of a course. Asking all of the students for their pronouns prevents visibly gender non-conforming students from feeling singled out and it provides an opportunity for transgender students whose identities are maybe not as visible. Asking students to present their names themselves prevents transgender students from being "outed" by the gendered nature of their legal name. While the process to change one's name in Sweden is now quite easy, this is not the case in all countries. Some international students may face significant barriers to changing their given names to match their gender identity. Additionally, a trans student may have not yet had the chance to change their legal name or have even decided on a permanent new name yet. It can take time and experimentation to find the right name when one must choose for oneself!

This practice has universal benefits— that is to say that it has benefits for all of the students, not just the group in mind. It allows for students to present the proper pronunciation of their names, give a name that is different from their legal name as registered on the university roster and keep their legal name private. Sometimes cisgender students change their legal names too.

There are some drawbacks of this practice. Some trans students might feel embarrassed by declaring their pronouns to a group as it might draw attention to them when they would rather be anonymous. Additionally, trans students who are not yet out about their gender identity or who are not ready yet to begin a public transition will feel pressured to declare the pronoun that is aligned with the sex they were assigned at birth (i.e. not the pronoun that aligns with their gender identity). For those students, this practice can feel like being asked to actively lie about their gender identity.

Whether you are called Jutta, Joline, Pierre or Pentti you should not be judged, treated or measured differently. But that is not how it is is. Based on our preconceived notions about other people's names we draw conclusions about their gender, age, ethnicity, nationality, social positions, and maybe even religious beliefs. The "name fact" influences our behavior and attitude towards them as well as our expectation of their attitude towards us. From this follows that it does matter what you are called.

An excerpt from Charlotte Hagström (2012). *Name me, Naming you. Personal Names, Online Signatures and Cultural Meaning. Names and Identities,* Oslo Studies in Language. Vol. 4. No. 2, pp. 81-91. University of Oslo

Respecting a Transgender Student's Integrity

We all have a pretty good idea of where the boundaries are regarding discussion of private, personal matters in various environments. We navigate these boundaries everyday, largely without much thought, even if in some international settings there may be a degree of disagreement. However, many cisgender people are unclear of how these boundaries apply to transgender, gender non-conforming and intersex people, or simply forget them entirely when talking to or about such a person.

Questioning a student about their genitals, breasts or hormones or engaging in open discussion or speculation about a student's body in this way without their consent is sexual harassment. Excusing such harassment on the basis of the student's gender identity or gender expression, is discrimination.

It is best not to question any student about their body and particularly not their reproductive organs. It is not possible to know what genitals any student has when they are clothed. Any student regardless of their secondary sexual characteristics or perceived gender conformity or non-conformity, may have been born with intersex genitals, may have undergone genital reconstructive surgery, have genitals that were altered by hormone replacement therapy, have a typical vagina, or have a typical penis. However, it is never appropriate to ask a student about their genitals. To be clear, asking a transgender student what they "really are" or what they "were before" are both questions about the student's genitals. Before asking a student what gender they were assigned at birth, first ask yourself why you need to know and if your curiosity is worth subjecting the student to a conversation they may find violating.

There are some people who hold strongly and dearly the opinion that a person's pronouns should "match" the person's genitals or chromosomes However, no employee or student has the right to know what another employee or student's genitals currently look like nor what they looked like at any point in the individual's past (at birth, for example). Gender non-conformity is not an invitation to violate the student's integrity. Therefore the only acceptable solutions are to use the pronouns that match the student's preference or avoid pronouns entirely. However if option two is chosen, it should be applied equally to every student in the classroom.

Coming out as transgender

Transgender people "come out" as transgender, that is to say, that a transgender person becomes aware of their gender dysphoria and/or incongruent gender identity privately first and then if they choose to transition to living in accordance with their gender identity and/or undergo treatment to relieve their gender dysphoria, they must tell other people. This is a similar process to the way someone who is lesbian realises for herself first that she is a lesbian and then "comes out" by telling other people that she is a lesbian.

The process of coming out is a product of heteronormativity. If society were not heteronormative there would be no need for anyone to come out as gender-based assumptions about people would not be held in the first place. There are as many different ways to come out as there are transgender people, however it often involves a public declaration of one's gender identity, preferred pronouns and a new name. It is important to remember that transgender people can come out and transition at any age and it is becoming more and more common for transgender youth to transition before puberty and go through the puberty that aligns with their gender identity although there still remain some legal restrictions on access to gender affirming healthcare for minors in Sweden.

After transitioning, particularly if the transgender person has undergone hormone therapy or other gender affirming procedures, a transgender person may not look any different from a cisgender person of the same gender identity. In this case, "coming out" means being open about being transgender when otherwise the assumption is that the person is cisgender. Some transgender people prefer to keep their transgender history private.

Never assume that there are no transgender students in your classroom! There might be a transgender student who hasn't come out as transgender yet, one who is only out in certain settings, or one who has already transitioned and does not disclose about their past in the classroom or at all.





Guidelines for navigating a student's transition

A student may come out as intersex or transgender during the course of their studies at Uppsala University. For some of these students, this act of discolosure may be accompanied by a social gender transition in order for the student to live in accordance with their gender identity. How to respond to an individual student's decision to transition must be adapted to the individual student's personality and needs. While one student may feel proud and appreciate being congratulated on coming out, another student may feel like they have an inconvenient medical condition that makes their lives difficult. Transgender and intersex people have to navigate a lot of mixed messages about what those identities and life experiences mean and when they first come out it can all be quite overwhelming. Do try to avoid expressions that imply that the student is brave to come out. By emphasizing their bravery, you indirectly emphasize that being transgender or intersex is stigmatized and scary instead of normal (albeit uncommon) and welcome. In general, a positive response that emphasizes your acceptance of the student's gender identity and reinforces the welcoming atmosphere of your classroom is a good starting point.

Points to keep in mind when a student comes out as transgender, gender nonconforming or intersex

- It is not appropriate to inquire about a student's gender affirming medical treatments. This is private medical information.
- It is important to respect the student's new name if they've chosen one and their preferred pronouns according to the student's own timeline for these changes.
- It is not appropriate to reveal a student's transgender or intersex status to others without the student's consent. Some individuals are open about these matters while others are very private. For this reason, it is not acceptable to reveal a student's former name to anyone. For example, it is not appropriate to tell a new student or teacher "Sometimes I slip up and refer to Moa as 'he' because I knew her when she was Johan." This is another reason to practice your student's new name and pronouns until you get them right.
- Since being transgender or is taboo (and even illegal) in many countries, it may be necessary to set a stronger tone of acceptance in international courses.
- All public institutions in Sweden are required to have gender neutral signs on single toilets. This means
 that students can use the toilets at Uppsala University without anxiety about gender policing from
 peers or strangers. However, this may not be the case on field trips and other course-related
 excursions. It is the course leader's responsibility to make sure that all students have access to toilet or
 shower facilities that they can use safely without fear of verbal attacks or violence.
- When planning international trips, bear in mind that it is illegal to be transgender or gender nonconforming in many countries and some destinations may put transgender, gender non-conforming and intersex students at significant risk for discrimination, harassment, violence and imprisonment. Passports contain legal gender markers which may disclose a student's transgender or gender nonconforming status to hostile authorities.

How to handle the misgendering of a student

Misgendering is what happens when someone is assumed to be a gender that they are not. Anyone can be misgendered, but transgender, gender non-conforming and intersex people are more likely to experience being misgendered.

Misgendering can be obvious such as the use of the wrong pronoun to refer to someone, the wrong name or direct gender labeling. For example, stating that Moa is a man when Moa is a woman is obvious misgendering. But misgendering can also be subtle. For example, asking a survey respondent to give their gender identity and "biological sex," and then analyzing the transgender respondents' data according to the latter category. A further example of subtle misgendering is to use the expression "identifies as" when only referring to the genders of transgender students. Moa does not merely "identify as a woman." Moa is a woman. To use "identifies as" only in reference to transgender students sends the message that these students *actually* have a "real" gender that is different from the one they identify as.

Tips

- If you hear a colleague or student misgender a student, correct them even when the student isn't around.
- If you misgender a student, correct yourself and move on. There is no need to draw further attention to your mistake.
- If you are struggling to adjust to a student's pronouns or name, take the time to practice in private or with a colleague. Ask your colleagues to correct you when you make a mistake.
- Expect and anticipate misgendering if any student's pronouns don't align with heteronormative expectations. Some students may not speak up and correct someone themselves when they are being misgendered because they do not want to draw attention to themselves or the misgendering. However, misgendering is at best an uncomfortable disruption for the targeted student and at worst very psychologically painful. Speak to the offending student in private about their responsibility to contribute to a good psychosocial learning environment and the importance of respecting a fellow student's gender identity.
- Gender policing, including teasing, harrassment, and unwelcome advice or judgement about a student's gender expression should not be tolerated.



Pronouns in the International Classroom

Some languages, like French and German, gender everything, whereas some languages like English and Swedish only gender people and other languages such as Estonian and Finnish don't have gendered pronouns at all. In the international, English-speaking biology classrooms common at Uppsala University, students may choose to express their gender differently in English compared to their native languages. Additionally, a student who is comfortable with the Swedish gender neutral pronoun "hen" in classes taught in Swedish may or may not be comfortable with the available English gender neutral equivalents (they or ze) in classes taught in English.

Friends and close acquaintances call me 'Paul,' which I really like to be called. I somehow identify more with neutral or masculine marker words, and names. In English when I use 'they' to refer to a person, most people don't notice it. But that's maybe because the people I talk to in English are not native speakers. So there is some slip of pronouns going on unintentionally, especially with Estonian people speaking in English. We don't have gendered pronouns, so a regular person might call a cis man a she by accident, and not be corrected, because we are not native speakers." "When I was using gender-neutral pronouns in English, it was almost impossible to get anyone who wasn't in the queer community to use 'they' for me consistently. This was at an early stage of me asking them not to use 'she' (the pronoun I was 'assigned' at birth), so I think people were still getting used to the idea of any pronoun other than 'she' for me. But I had the impression that people outside the queer world (not LGBT but 'queer' as in challenging gender binaries) had an even harder time with the idea of a gender-neutral pronoun than with the idea of someone 'crossing' gender lines (i.e. requesting 'he' instead of 'she'). So people would default to 'she', which was unbearable to me. So 'he' felt lots safer to me since it was farther away from 'they' and easier for people to wrap their minds around."

"The options that English presents work reasonably well for me and I can express my gender identity and use preferred pronouns [...]. [In] German I struggle a lot with language and [I am] often very unhappy with the situation of [the lack of] German gender-neutral language. I lack usable and easy to learn/apply pronouns and descriptions of myself. That the language is very gendered is a big problem in my life."

"I use masculine pronouns, even though they don't suit me very well. Plural or 'neuter' cases in Russian aren't comfortable for me. Maybe someday I could use them, though. I also speak English, and I use the 'they/them' in English. Because of the language barrier, that doesn't feel unnatural for me, and besides, [in] Russian almost all the verbs and adjectives have gender, and in English it's not like that. Pronouns in English don't hurt me, as long as no one does it on purpose."

Quotes are from Erin Crouch (2017). *What Happens If You're Genderqueer–But Your Native Language Is Gendered?* Published online at theestablishment.co

The singular use of the pronoun 'they' as a gender neutral alternative to 'he' or 'she.'

Non-binary students may prefer the singular they/them in lieu of he/him or she/her. If you are unaccustomed to using the singular they in English, it may feel uncomfortable at first. This is normal. However, you can be reassured that its use will come quite naturally after a short period of mindful application. If you mistakenly use the wrong pronoun for a student in the classroom, simply correct yourself and continue with your statement. There is no need to apologize or otherwise disrupt the learning environment by bringing attention to the student's gender. If your errors are frequent, it may be necessary to reassure the student that you are mindful of your errors and working to correct them

The gender neutral 'they' can be used as a pronoun for an individual whose gender is unknown to the speaker: "Somebody forgot **their** lab notebook." And when the individual's gender is known to be neither discretely male nor female: "Your lab partner is Jordan. **They** are looking forward to working with you."

The gender neutral Swedish pronoun 'hen' is also used in both of these ways.



You can't use a plural pronoun in English to refer to one person!

actually...

Actually, plural pronouns have already been used this way in English. Singular you was resisted at first just like singular they is today. But it's been centuries since anybody objected to singular you!

explanation

Some say he and she are the only grammatically correct singular personal pronouns, and that you can't change grammar just because it doesn't work for a few people. But languages are living tools created by and for the people who speak them, and when the needs of those speakers change, so do languages. English pronouns have already changed several times in history. From Old to Middle English, people said thou (singular) and ye (plural) instead of our modern you. After the Norman Conquest of England brought a French influence into English, plural ye became singular and was used to indicate someone's higher status, kind of like plural vous conveys respect in French. However, because social class boundaries were becoming more fluid in England, thou started to feel like an insult as it implied a lower status, so you gradually took over despite facing initial resistance.

Current legislative and social changes in



The sterilization requirement for legal gender change in Sweden was removed in July, 2013, which means that medical interventions should no longer be required for legal recognition of a transgender person's gender identity as a man or a woman in the population registry. However, in practice, the legal and medical aspects of gender transition are still considerbly intertwined. Following this change of law, the government decided to conduct an inquiry to survey and analyze the consequences of the current age limit of 18 for legal gender change and advise whether or not this age limit should be amended. The result of this inquiry is the 2014 Swedish governmental report, *Legal Gender and Medical Gender Reassignment: Inquiry Report on the Age Limit Regarding Change of Gender (Juridiskt kön och medicinsk könskorrigering: Betänkande av Utredningen om åldersgränsen för fastställelse av ändrad könstillhörighet*).

The inquiry draws a clear line between the legal and medical aspects of changing gender. With regard to legal gender change, the inquiry recommends that transgender youth aged 15 and older be permitted to independently change legal gender, transgender youth ages 12-15 be permitted to change legal gender with parental consent and that children with intersex variations under the age of 12 be permitted to change legal gender under certain circumstances. With regard to access to medical treatment for gender dysphoria, the inquiry recommends that in order for youth under the age of 18 to be approved for gender confirming surgical procedures on the sexual and reproductive organs, the procedure must be grounded in evidence-based medicine, and the young person must be at least 15-years-old, have parental consent and have sufficient maturity to consent.

Statens Offentliga Utredningar (2014). Juridiskt kön och medicinsk könskorrigering: Betänkande av Utredningen om åldersgränsen för fastställelse av ändrad könstillhörighet. SOU 2014:91. Available online at www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2015/01/sou-201491-/. Accessed 2018-11-18.



The 2018 Swedish governmental report, *Trans people in Sweden* (*Transpersoner i Sverige*), sets forth proposals for legislative and social advances in equality for transgender people in Sweden. According to this report, the Swedish government should investigate the possibilities for a third legal gender in Sweden and the implementation of gender neutral personal identification numbers (*personnummer*). In relation to that investigation, the Equality Ministry should investigate barriers trans people experience in connection with traveling and the Police Ministry should investigate the possibility of implementing the alternative X as a gender marker in Swedish passports. Public financial resources should be allocated to the development of transinclusive environments. Guidelines for how transinclusive environments can be made (e.g. changing rooms and toilets) should be developed by the Discrimination Ombudsman together with the Housing Ministry. One such guideline already implemented is that all public facilities must sign single toilets as gender neutral.

The Children's Ombudsman should be given the directive to talk to children and youth about questions regarding gender identity and intersex variations with the purpose to increase knowledge in society about how children's rights according to the Children's Convention are met for young trans people and children and youth with intersex variations. Additionally, the School Inspectorate 'should be given the directive to investigate trans people's situation as students in primary and secondary schools.

Statens Offentliga Utredningar (2017). Transpersoner i Sverige: Förslag för stärkt ställning och bättre levnadsvillkor. SOU 2017:92. Available online at www.regeringen.se/4adda9/contentassets/3e2e892900fc4034a9d822413fdaefe7/transpersoner-i-sverige----forslag-for-starkt-stallning-och-battre-levnadsvillkor. Accessed 2018-11-18.

Literature on transphobia and transprejudice

Adams, K., Nagoshi, C., Filip-Crawford, G., Terrell, H. and Nagoshi, J. (2016). Components of gender -nonconformity prejudice. *International Journal of Transgenderism*, 17:3 + 4, 185-198.

Bettcher, T. (2007). Evil deceivers and make-believers on transphobic violence and the politics of illusion. *Hypatia*, 22:3, 43-65

- Carroll, L., Güss, D., Hutchinson, K. and Gauler, A. (2012). How do U.S. students perceive trans persons? *Sex Roles*, 67:9 + 10, 516-527.
- Chen, B. and Anderson, V. (2017). Chinese college students' gender self-esteem and transprejudice. *International Journal of Transgenderism*, 18:1, 66-78.
- Costa, P. and Davies, M. (2012). Portuguese adolescents' attitudes toward sexual minorities: Transphobia, homophobia, and gender role beliefs. *Journal of Homosexuality*, 59:10, 1424-1442.
- Darj, F., Nathorst-Böös, H. and Jarl-Åberg, C. (2011). *HBT och Heder: Råd till Yrkesverksamma*. Alma Europa and RFSL Ungdom.
- Darj, F. and Nathorst-Böös, H. (2008). Är du kille eller tjej? RFSL Ungdom.
- Falomir-Pichastor, J. and Mugny, G. (2009). I'm not gay ... I'm a real man!: Heterosexual men's gender self -esteem and sexual prejudice. *Personality and Social Psychology Bulletin*, 35:9, 1233-1243.

King, M., Winter, S. and Webster, B. (2009). Contact reduces transprejudice: A study on attitudes toward transgenderism and transgender civil rights in Hong Kong. *International Journal of Sexual Health*, , 21:1, 17-34.

- Landén, M. and Innala, S. (2000). Attitudes toward transsexualism in a Swedish national survey. Archives of Sexual Behavior, 29:4, 375-388.
- Larson, S., Lilja, J., Fossum, B., Bergström-Walan, M. and Berg, M. (2008), *Vem får man vara i vårt samhälle? Om transpersoners psykosociala situation och psykiska hälsa*. Statens folkhälsoinstitut, Östersund.
- Leitenberg, H. and Slavin, L. (1983). Comparison of attitudes toward transsexuality and homosexuality. *Archives of Sexual Behavior*, 12: 4, 337-346.
- Norton, A. and Herek, G. (2013). Heterosexuals' attitudes toward transgender people: Findings from a national probability sample of U.S. adults. *Sex Roles*, 68: 11 + 12, 738-753.
- Norton, J. (1997). "Brain says you're a girl, but I think you're a sissy boy": Cultural origins of transphobia. *Journal of Gay, Lesbian, and Bisexual Identity*, 2:2, 139-164.
- Reed, O., Franks, A. and Scherr, K. (2015). Are perceptions of transgender individuals affected by mental illness stigma? A moderated mediation analysis of anti-transgender prejudice in hiring recommendations. *Psychology of Sexual Orientation and Gender Diversity*, 2:4, 463-469.
- Schilt, K. andWestbrook, L. (2009). Doing gender, doing heteronormativity: Gender normals, transgender people, and the social maintenance of heterosexuality. *Gender and Society*, 23: 4, 440-464.