Hacking Gender

Transition À La Carte

Me? Ryan Castellucci (they/them/themself)

- Hacker - “technical and capable of breathing fire”
  - The work I’ve done isn’t hard to find, but this talk isn’t about me
- Came out as non-binary June ‘20 after *many* **years** of questioning/exploration
- Specifically: Transgender Androgyne - https://rya.nc/pronouns
- Transhumanist - Why settle for what nature gives us? https://w.wiki/4yaA
- Biohacking my transition with assistance of qualified medical professionals.
  - Some details for the curious, but this talk isn’t about me - https://rya.nc/private/transition
  - Tl;dr: 💸 HRT since August ‘20, off-menu bottom surgery in September ‘21
- Experimental medicine stops being experimental if enough people try it 🤷
- Trying to help and educate others

#include <disclaimer.h>

- I do not speak for anyone other than myself
- My views do not necessarily reflect those of any other non-binary and/or transgender people
- I do not recommend “DIY” or “self-med” hormone replacement therapy
- I am not a medical professional
- Nothing presented in this talk is medical advice
- Some information is not validated by peer reviewed clinical studies
- Some of this stuff hasn’t even been tried at all
- **There will be talk, in clinical terms, of genitals and surgery**
- **Non-sexualized nudity will have individual warnings immediately before**



Calvin Wong Tze Loon 黃子倫
@ithayla

'why are there suddenly so many gay/transgender/non-binary' people?

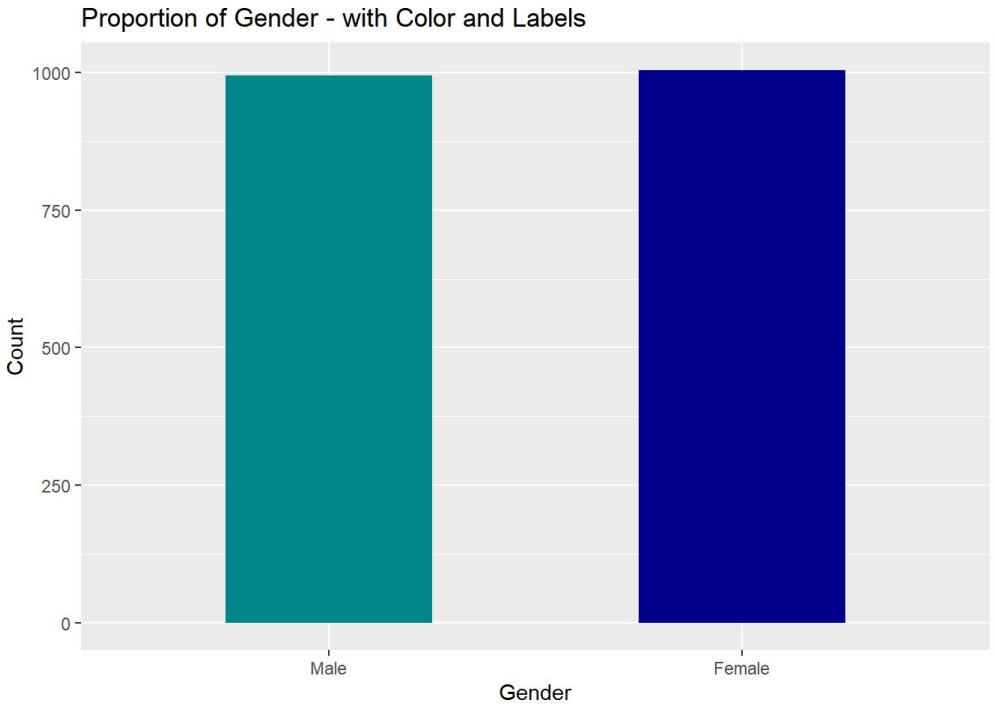
idk consult the left-handedness chart.



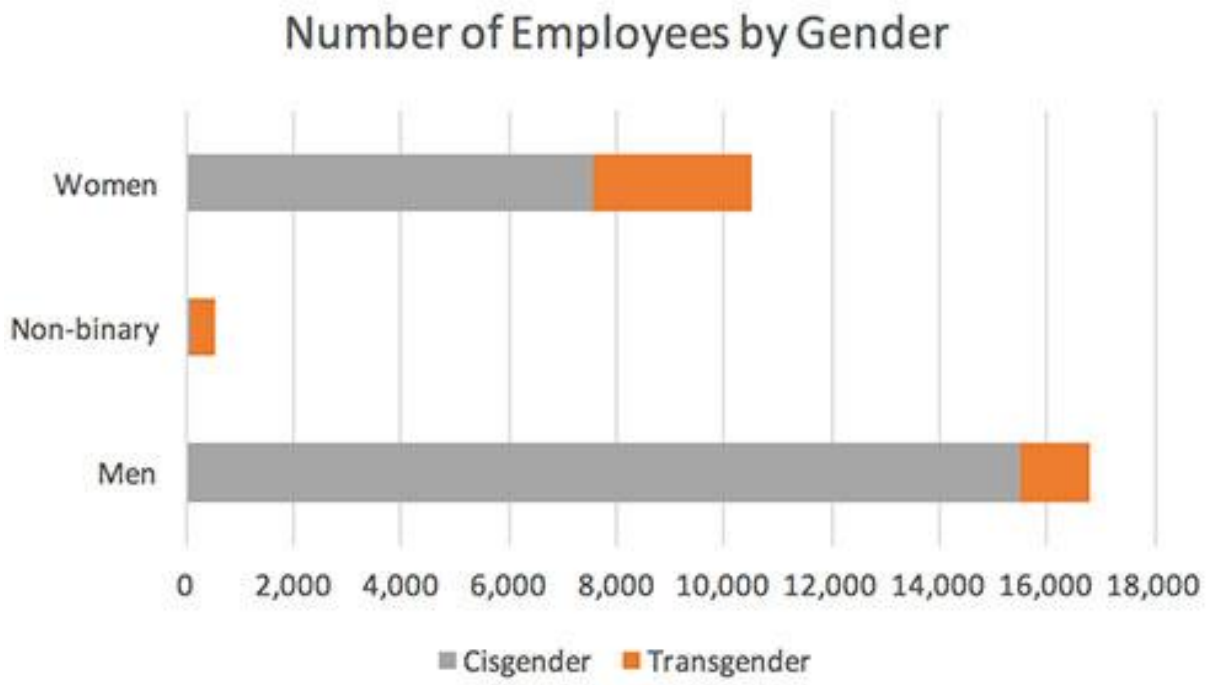
9:47 PM · Jun 30, 2021 · Twitter Web App

But what *is* gender?

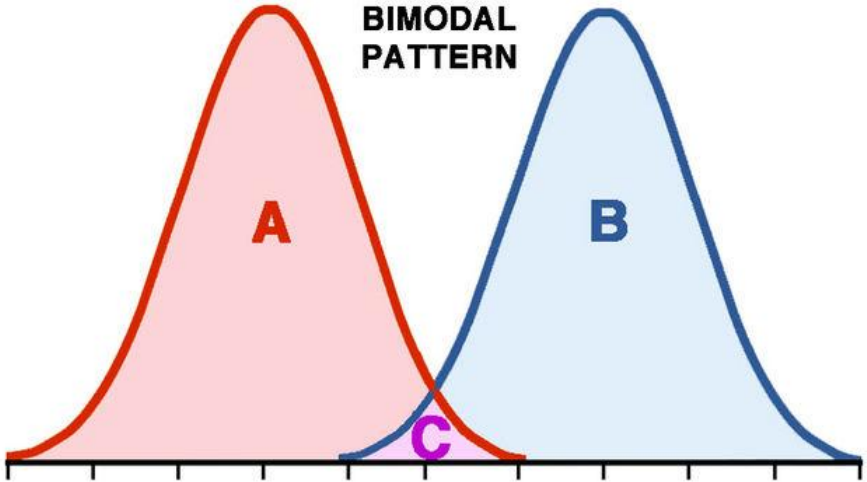
A bool/bit?

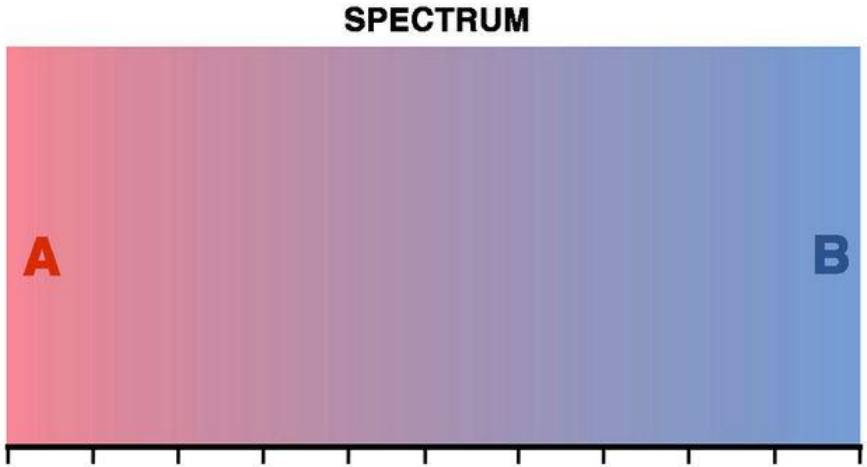

Proportion of Gender - with Color and Labels
1000
750
500
250
0
Count
Male
Female
Gender

An enum?

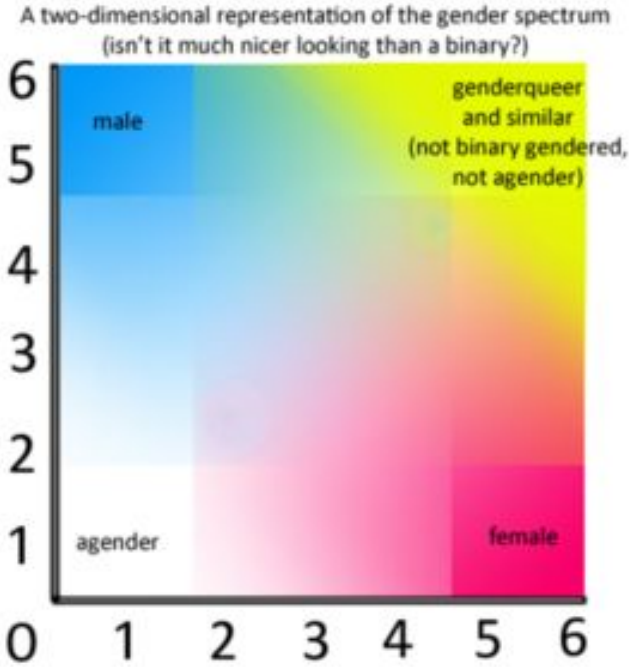

Number of Employees by Gender
Women
Non-binary
Men
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
16,000
18,000
Cisgender
Transgender

A float?





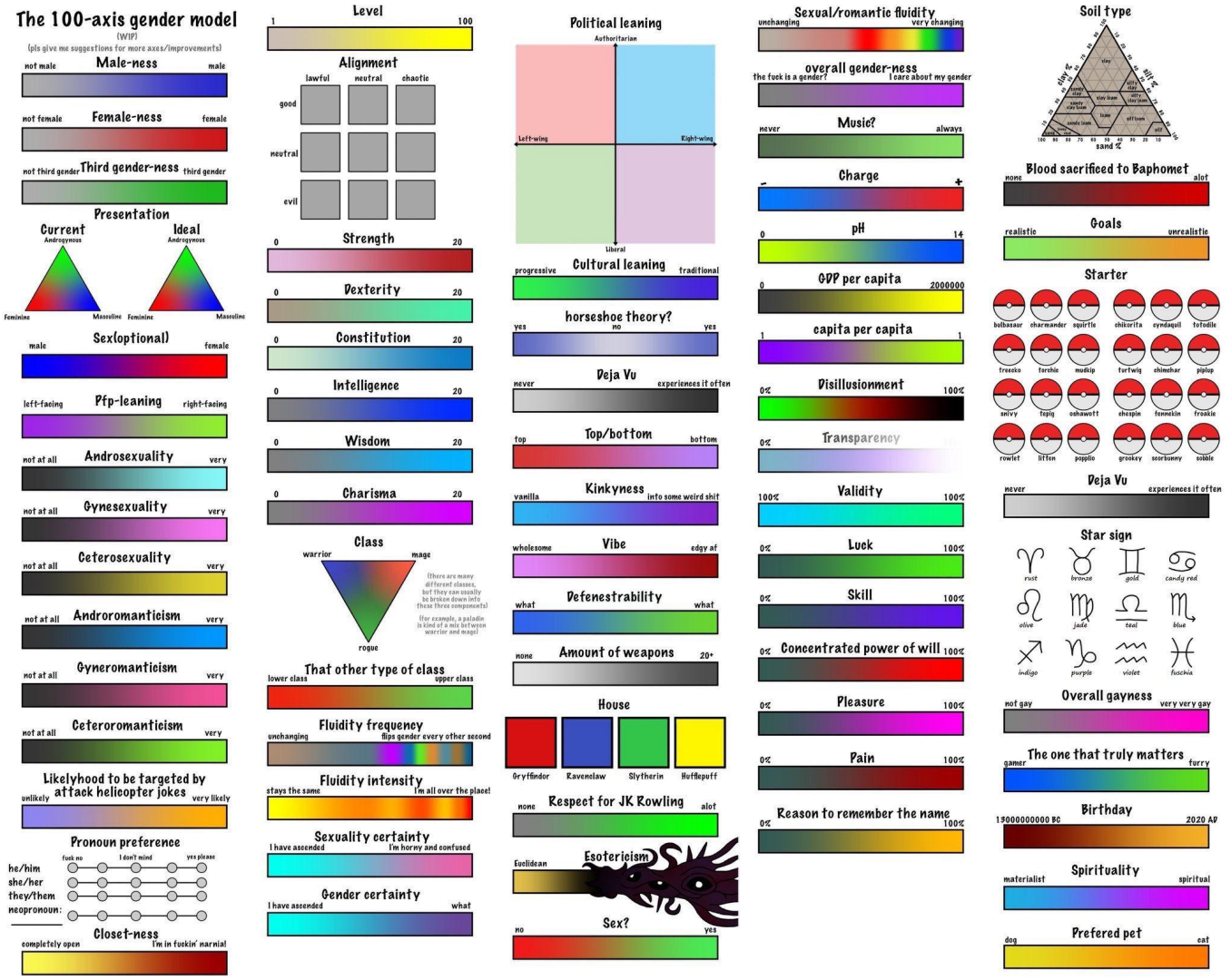
A complex double?



The 100-axis gender model

(WIP)

(pls give me suggestions for more axes/improvements)



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Gert Sønderby
@gsonderby

Replying to @CartaMonir

But… gender is an amorphous, loosely bimodal point cloud in an n-dimensional space! Even calling it a gamut would be hideously reductive.

8:47 PM · Mar 16, 2022 · Twitter Web App

Notes on Sex & Gender

- Unfortunately, I don't have enough time today to give much background
- It's generally disrespectful to say someone used to be a different sex/gender
  - If someone self-identifies as having changed sex/gender, respect that
- People have **opinions** about the difference between sex and gender
  - Generally, sex is *somehow* biological, whereas gender is social
- Biological sex is **not** limited to "male" and "female"
  - About 1 out of every 60 people is born with an intersex condition - https://rya.nc/j4

BEYOND XX AND XY

A host of factors figure into whether someone is female, male or somewhere in between

Humans are socially conditioned to view sex and gender as binary attributes. From the moment we are born—**or even before—we are definitively labeled "boy" or "girl." Yet science points to a much more ambiguous reality.** Determination of biological sex is staggeringly complex, involving not only anatomy but an intricate choreography of genetic and chemical factors that unfolds over time. Intersex individuals—those for whom sexual development follows an atypical trajectory—are characterized by a diverse range of conditions, such as 5-alpha reductase deficiency (*circled*). A small cross section of these conditions and the pathways they follow is shown here. In an additional layer of complexity, the gender with which a person identifies does not always align with the sex they* are assigned at birth, and they may not be wholly male or female. The more we learn about sex and gender, the more these attributes appear to exist on a spectrum.

—*Amanda Montañez*

**The Gender Spectrum*

A transgender woman is a person who was assigned male at birth based on her anatomy but who identifies as a woman.

A cisgender woman is a person who was assigned female at birth based on her anatomy and who also identifies as a woman.

A nonbinary person is someone who identifies as neither completely female nor completely male. Such an individual may identify with both genders or neither gender, or they may be gender fluid, meaning their gender fluctuates between female and male.

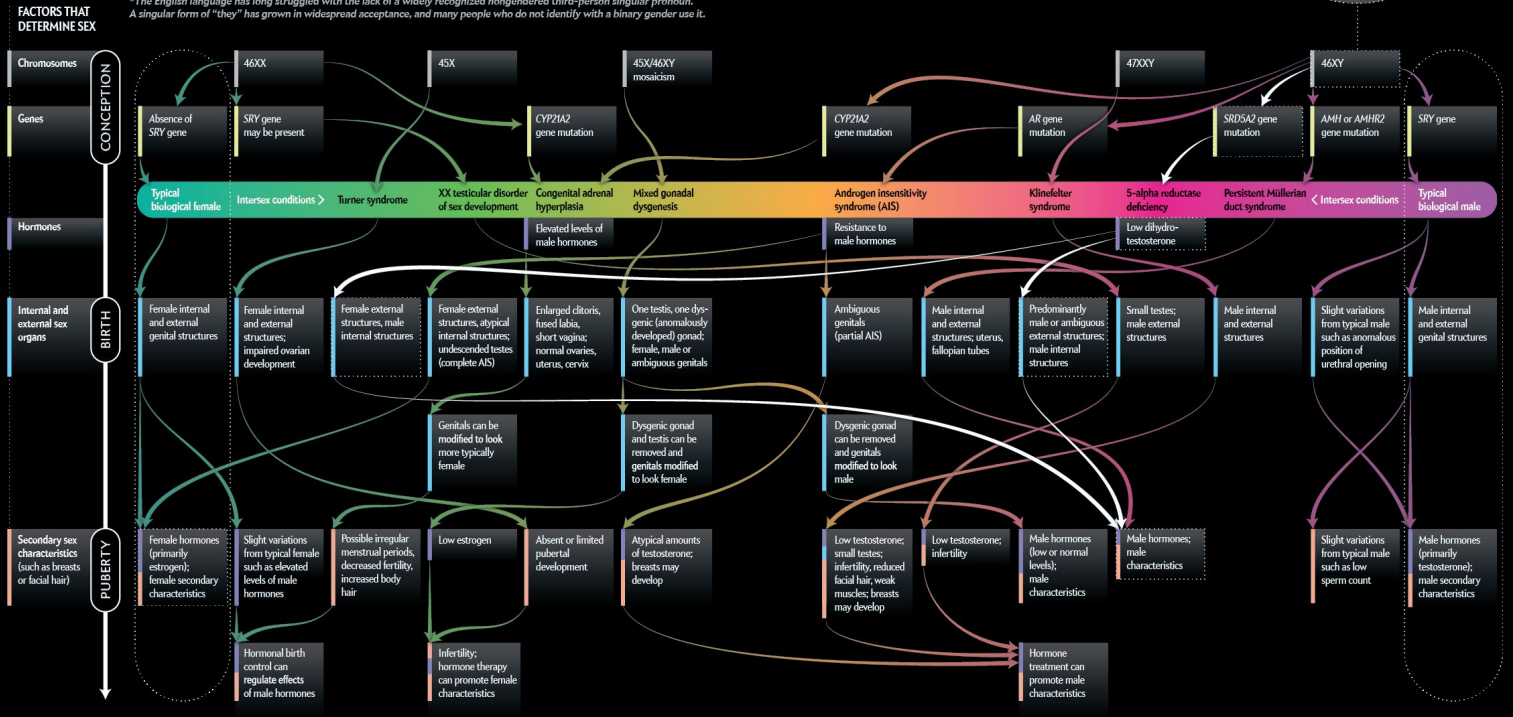
A transgender man is a person who was assigned female at birth based on his anatomy but who identifies as a man.

A cisgender man is a person who was assigned male at birth based on his anatomy and who also identifies as a man.

Sexuality refers to an individual's sexual orientation or to the kind of person to whom they are attracted. Sexuality is also a spectrum but is separate from both sex and gender.

5-alpha reductase deficiency is an intersex condition that can follow multiple pathways throughout development. Affected individuals have a chromosomal makeup of 46XY, like a typical biological male, but a genetic mutation causes a deficiency of the hormone dihydrotestosterone. Patients' external anatomy can vary, so an individual might be assigned to either sex at birth, but at puberty a surge of testosterone promotes male characteristics. As a result, patients who are raised as girls often end up identifying as male.

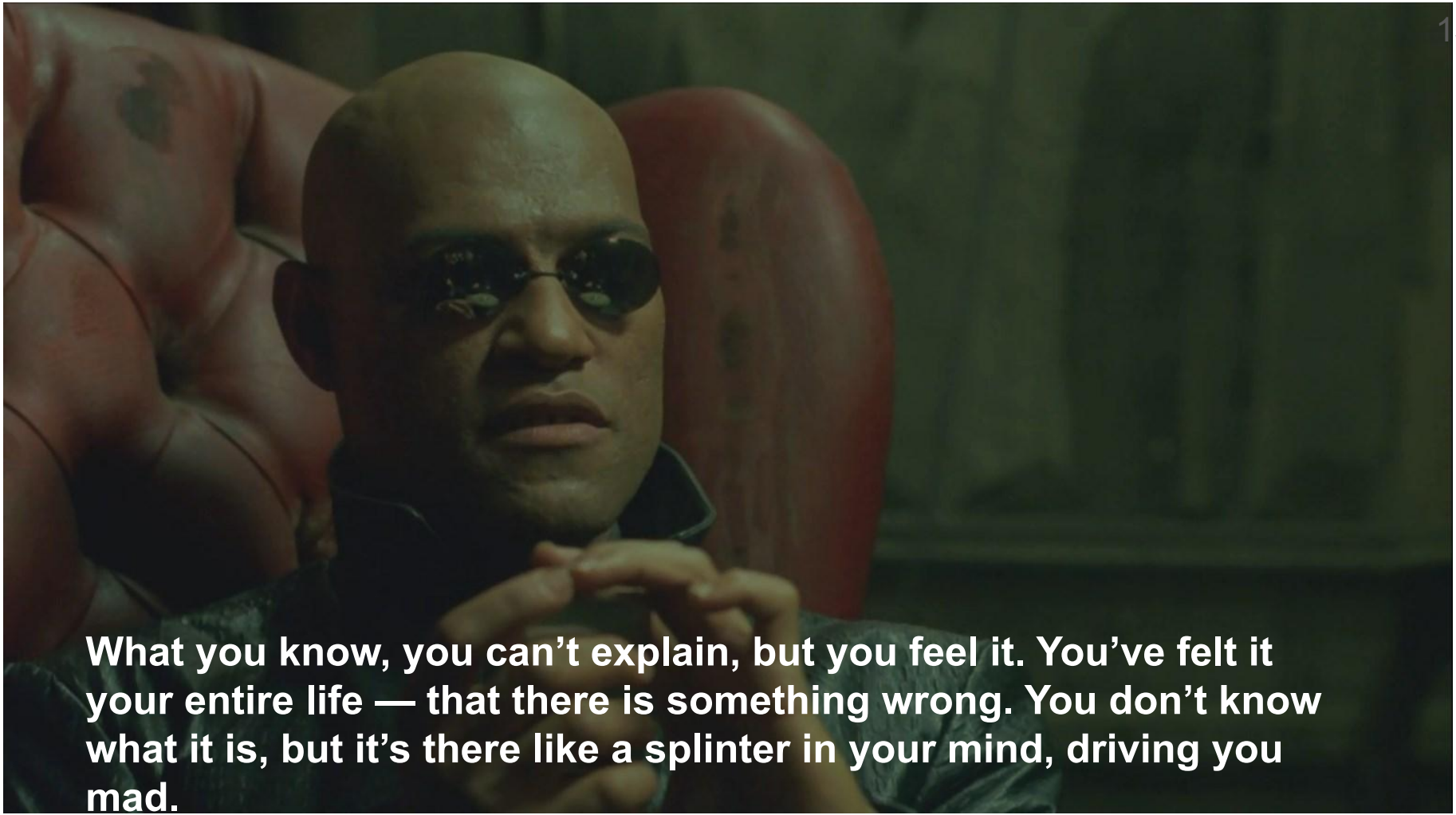
**The English language has long struggled with the lack of a widely recognized nongendered third-person singular pronoun. A singular form of "they" has grown in widespread acceptance, and many people who do not identify with a binary gender use it.*



Graphic by Pitch Interactive and Amanda Montañez

SOURCE: RESEARCH BY AMANDA HOBBS; EXPERT REVIEW BY AMY WISNIEWSKI *University of Oklahoma Health Sciences Center*

When mind and body don’t match - Dysphoria


What you know, you can’t explain, but you feel it. You’ve felt it your entire life — that there is something wrong. You don’t know what it is, but it’s there like a splinter in your mind, driving you mad.

What to do about dysphoria?

Social Transition

- Issues of safety and discrimination aside, you can just do this
  - Parents: Be supportive of your offspring!
- Experiment. See what brings you joy.
- Pronouns: Literally no rules
  - Respect neopronouns!
  - Your joke pronouns aren't funny, though
- Titles: Whatever, just don't do any frauds
  - https://dontgender.me/
  - GDPR rectification requests have worked for me on every company except British Airways
- Names: Far fewer rules than you think: https://rya.nc/j3
  - Companies/Government may want a "deed poll", which costs nothing
  - Making oneself an edge case (mononym, special characters, "null", etc) is a bit masochistic



What you must learn is that these rules are no different than the rules of a computer system. Some of them can be bent. Others… can be broken.

Social Transition

- Clothes?
  - Gendered only by conventions - which have changed over time.
- Hairstyles?
  - Gendered only by conventions - which have changed over time.
- Makeup?
  - Gendered only by conventions - which have changed over time.

Medical Transition

Hormone Replacement Therapy - Testosterone (T)⬇️

- Body odor decreases and becomes more “feminine”
- Skin becomes softer, thinner, and less oily
- Growth of body hair decreases (won’t stop completely)
- Richer emotional gamut, crying becomes easier (stacks with increased E2)
- Libido decreases
- Muscle mass and strength decrease
- Balding slows or stops
- (if applicable) Spontaneous erections are reduced or stopped entirely
- (if applicable) Erectile dysfunction
- (if applicable) Testicles atrophy
- (this list not exhaustive, YMMV, etc)

Hormone Replacement Therapy - Estradiol (E2)⬆️

- Breasts grow, nipples enlarge, areola enlarge and darken
- Body fat redistributes to a more “feminine” pattern
- Facial features become more “feminine”
- Scalp hair thickens and becomes stronger
- Erogenous zones expand
- Changes to orgasms
- Richer emotional gamut, crying becomes easier (stacks with reduced T)
- Pelvic tilt changes, increasing curvature of butt and back, decreasing height
- Ligaments stretch resulting in slimmer hands/wrists/feet and more flexibility
- (if applicable) Changes to penis/scrotum - sensitivity increases, odor changes, skin becomes more moist, thinner, and fragile
- (this list not exhaustive, YMMV, etc)

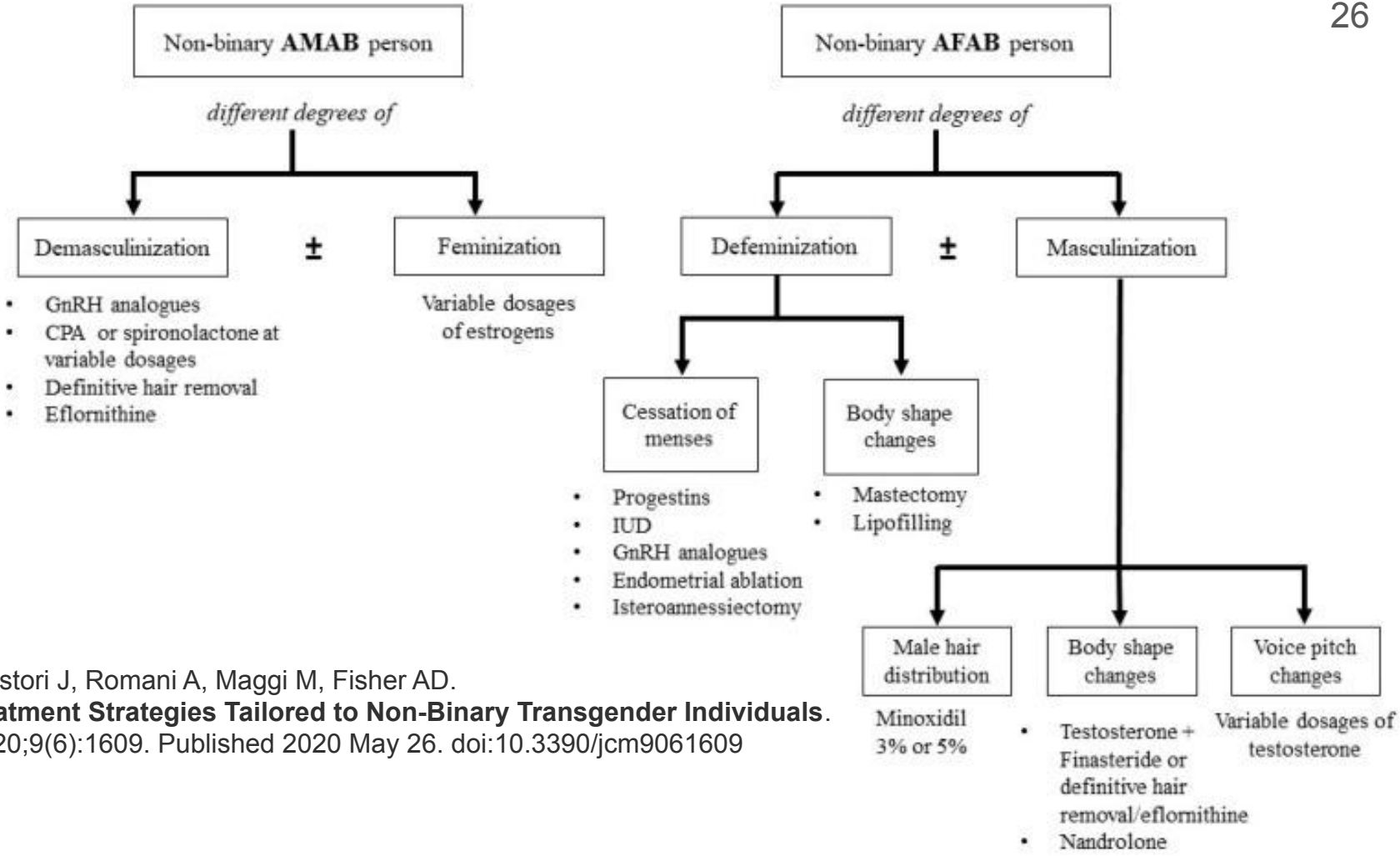
Hormone Replacement Therapy - Progesterone (P4)⬆️

- Breasts grow more full
- Libido increases
- Appetite increases
- Metabolism increases
- Sleep becomes deeper
- Dreams become more vivid
- (this list not exhaustive, YMMV, etc)

Hormone Replacement Therapy - Testosterone (T)⬆️

- Growth of body hair increases
- Facial hair grows
- Voice deepens
- Balding may occur depending on genetic factors
- Body fat redistributes to a more “masculine” pattern
- Muscle mass and strength increase
- Libido increases
- Skin becomes coarser, thicker and more oily (acne may result)
- Body odor increases and becomes more “masculine”
- Facial features become more “masculine”
- (if applicable) Clitoris grows larger
- (if applicable) Vaginal atrophy
- (this list not exhaustive, YMMV, etc)

But I want a pony!



Cocchetti C, Ristori J, Romani A, Maggi M, Fisher AD.
Hormonal Treatment Strategies Tailored to Non-Binary Transgender Individuals.
J Clin Med. 2020;9(6):1609. Published 2020 May 26. doi:10.3390/jcm9061609

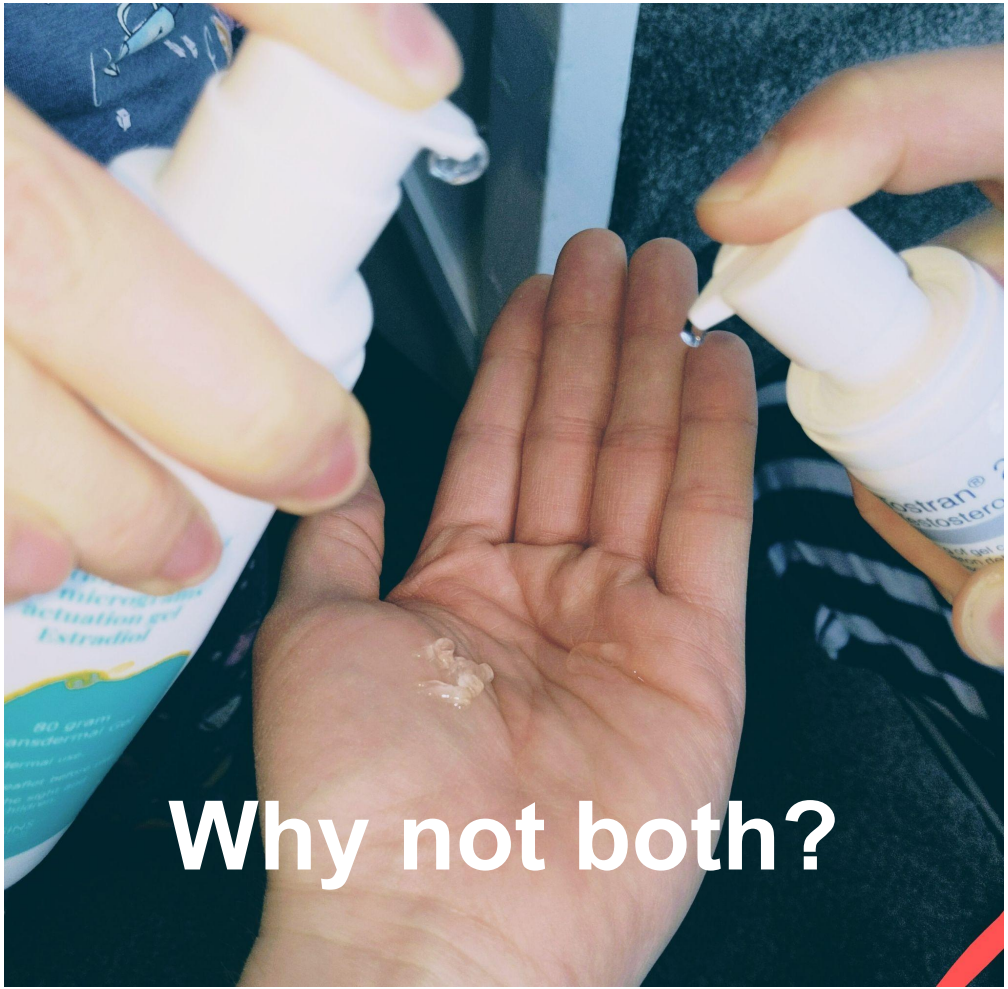
HRT - Additions, Substitutions, and Modifications

- Opt-out of balding and increases in facial/body hair from T
  - 5α-Reductase inhibitors (finasteride, dutasteride)
  - Androgens other than testosterone (nandrolone - experimental)
- Opt-out of physical but not mental effects of T
  - Antiandrogens which do not cross blood-brain barrier (darolutamide - experimental)
- Opt-out of penile atrophy and/or decreased erectile function from decreased T
  - Antiandrogens that block, but don't suppress T (bicalutamide)
  - Tadalafil (Cialis) can be taken once-daily in lower doses
  - Sildenafil (Viagra) can be taken on-demand
  - Topical application of testosterone directly to the penis
  - Regular vacuum pump use and/or "exercise"
- Opt-out of breast growth from E2
  - Surgical tissue removal (regrowth is prevented)
  - Selective Estrogen Receptor Modulators (tamoxifen, raloxifene, afimoxifene - experimental)

HRT - Additions, Substitutions, and Modifications

- Opt-out of breast growth and mental effects of increased E **experimental**
  - Bicalutamide to block effects of T, SERM instead of E, aromatase inhibitor to block T->E
- Opt-out of vaginal atrophy
  - Vaginal estradiol
- Selectively opt-in to clitoral growth
  - See (NSFW) reddit.com/r/GrowYourClit and/or reddit.com/r/GrowYourTDick
  - Topical testosterone or dihydrotestosterone applied directly to the clitoris
  - Regular vacuum pump use
- Selectively opt-in to muscle growth
  - Multitude of “non-virilizing” steroid regimens - grey-market
  - Selective Androgen Receptor Modulators (SARMs)- experimental, grey-market
- Genderfuck around and find out
  - Combining testosterone, estradiol and progesterone and tuning dosages is *an option*

Estradiol ->



<- Testosterone

HRT - 404 Pony Not Found

- Lack of known solutions now doesn’t mean they won’t be developed…

- Opt-out of voice changes from T
  - Can mitigate with voice training, requires substantial effort
- Selectively opt-in to breast growth
  - Topical application of estradiol to breasts apparently doesn’t work and is a cancer risk
- Blocking mental effects of T
- Opt-in to only mental effects of E2

Hair Removal

- Intense Pulsed Light (IPL) - low pain, not usually permanent, can do at home
- Laser - moderate pain, long lasting but not usually permanent
- Waxing - moderate pain, short lasting, not for face
- Shaving - pretty much everyone is familiar with this
- Chemical depilation - no pain, short lasting, not for face, cheap to do at home
- Epilation - moderate pain, short lasting, not for face, cheap to do at home
- Electrolysis - high pain, expensive, tedious - but permanent

Masculinizing/De-Feminizing Surgeries

- Chest Reconstruction (removal of breasts, nipple preservation optional)
- Body Contouring (removing/moving fat)
- Facial Masculinization Surgery
- Hysterectomy (removal of uterus)
- Phalloplasty (construction of a penis from grafted skin)
- Metoidioplasty (surgical enlargement of clitoris)
- Scrotoplasty (construction of a scrotum)
- Vaginectomy (removal of vagina)
- Urethral Lengthening (with phalloplasty)

Feminizing/De-Masculinizing Surgeries

- Breast Augmentation (implants)
- Body Contouring (removing/moving fat)
- Tracheal Shave (removal of adam’s apple)
- Facial Feminization Surgery
- Voice Feminization Surgery
- Orchiectomy (removal of testes)
- Penectomy (removal of penis, usually partially preserved)
- Sigmoid Vaginoplasty (as in sigmoid colon)
- Penile Inversion Vaginoplasty (exactly what it sounds like)
- Peritoneal Pull-through Vaginoplasty
- Vaginoplasty using skin grafts (various possible sources)
- Hybrid Vaginoplasty (various combinations)
- Labiaplasty (construction of a vulva)
- Clitorplasty (construction of a clitoris from penile tissue)

Transition is Personal

- Even “binary” trans people are selective about what they do
- Maybe they’re happy with their existing genitals
- HRT may cause undesired effects
- Perhaps they don’t feel surgery is worth the risks
- Treatment not accessible (cost, availability)
- They might want children first
- Many other possible reasons - “I don’t want that” is fine!

Surgeries That Depend On One Another

- Urethral Lengthening requires Phalloplasty
- Clitorplasty requires Penectomy
- Penile Inversion Vaginoplasty requires Penectomy
- Vaginectomy requires Hysterectomy

Bottom Surgery “Secret Menu” - General

- “Nullification” - removal of all genitals
  - A sensate portion of tissue can be left
  - Urethra can be left in front or rerouted to perineum (UTI risk, though)

Bottom Surgery “Secret Menu” - Masculinizing/De-Feminizing

- Phalloplasty without “Burial”
  - Clitoris remains below penis
- Metoidioplasty + Phalloplasty without “Burial”
  - Basically, a small penis made from the clitoris plus a larger one made from skin grafts
- Hysterectomy, Scrotoplasty, Vaginectomy, Urethral Lengthening all optional
  - Urethral Lengthening without Vaginectomy is rarely done due to high complication rates

Bottom Surgery “Secret Menu” - Feminizing/De-Masculinizing

- Vaginoplasty Without Penectomy
  - “Penile Preservation Vaginoplasty”, “Phallus Preserving Vaginoplasty”, “Penis Sparing Vaginoplasty” - probably other names, terminology not standardized.
  - Earliest known instance in 2018
  - Possible with any type of vaginoplasty except penile inversion, but usually PPT
  - Four surgeons offering openly that I know of, rumors of four more but I don’t know who
  - Probably around 100-150 total patients
  - Testicles can theoretically be retained, but hasn’t been done AFAIK
  - “Penile Peritoneal Vaginoplasty” is **NOT** this - the clinic offering it makes unrealistic claims
- Orchiectomy
  - Frequently done on its own, other surgeries not required
- Labiaplasty+Clitorplasty+Orchiectomy Without Vaginoplasty
  - Usually referred to as “minimal depth vaginoplasty” or “zero depth vaginoplasty”

I Said There’d Be Photos

All photos used with direct, explicit permission.
All links provided with direct, explicit permission.

Educational Genital Photos Follow!





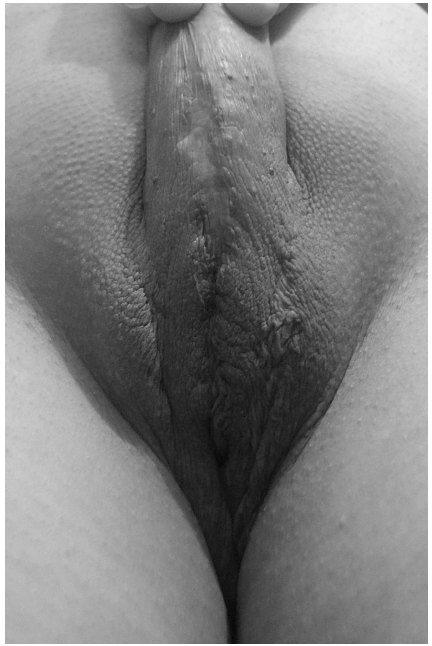


Courtesy of Gerbil, ChinchillaMeat.com (NSFW, some “healing” photos a bit gory)

Another person born with feminine anatomy:
https://www.reddit.com/user/nonbinaryphallo/









12 months post op,
pre revisions

4 years after initial surgery, 2 years after 2nd revision surgery
note faded scarring on abdomen (graft donor site)

Courtesy of Reddit user /u/Androgynoplasty





Courtesy of Noodles - Twitter: @NuParts (NSFW)







Four months post op, labiaplasty not attempted during initial surgery



Soul Source #4 dilator (1.5”/38mm diameter)
Depth achieved: 5.2”/132mm







Resources:

- reddit.com/r/TransSurgeriesWiki/wiki/srs/introduction - https://rya.nc/j5
- madgenderscience.miraheze.org - https://rya.nc/j6
- These slides (**in a few hours** once I upload them): https://rya.nc/j7

Questions?

- This talk doesn't have a Q&A section, but…
- Above resources are great starting points
- My Twitter DMs are open: @ryancdotorg
- https://rya.nc/contact
- I will privately answer non-creepy personal questions