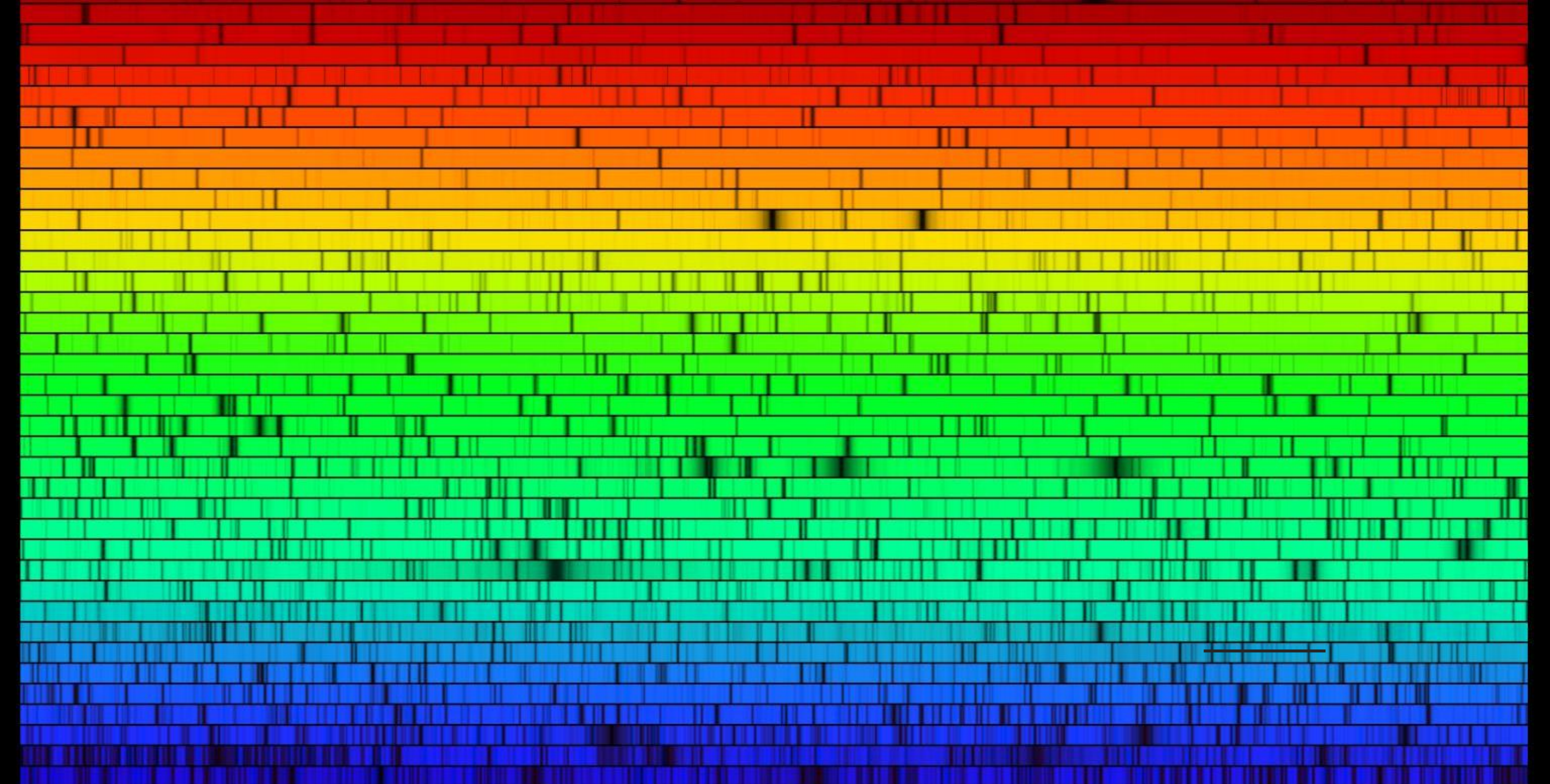




Reflections on making an inclusive research environment

Jan Eldridge

Fourier Transform Spectrometer at the McMath-Pierce Solar Facility
at the National Solar Observatory on Kitt Peak, near Tucson, Arizona



Fourier Transform Spectrometer at the McMath-Pierce Solar Facility
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STARS SHOWING RESULTS OF s-PROCESS

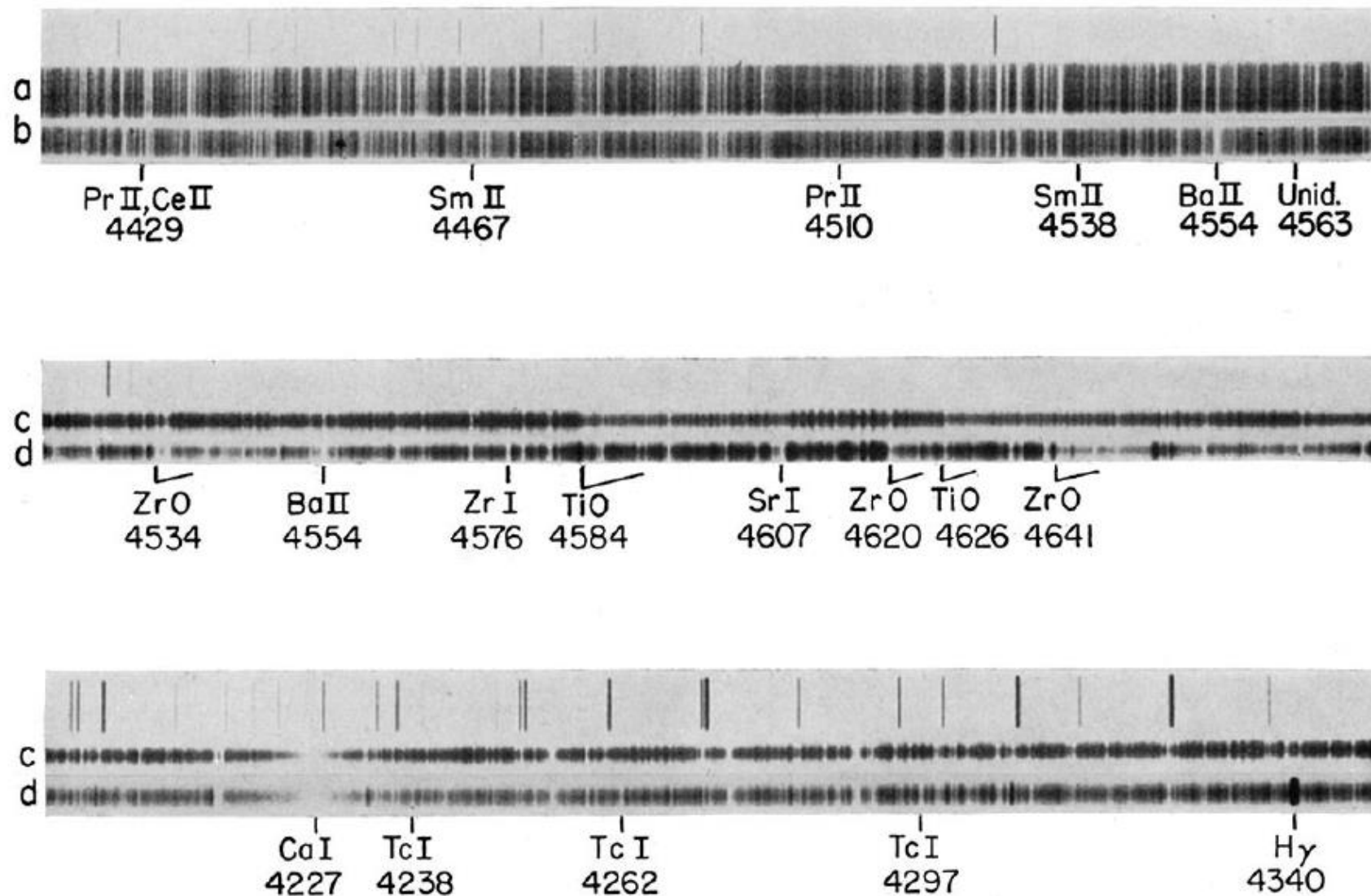


PLATE 3.

PLATE 3. Portions of the spectra of stars showing the results of the *s* process. Upper: (a) Normal *G*-type star, κ Geminorum. (b) Ba II star, HD 46407, showing the strengthening of the lines due to the *s*-process elements barium and some rare earths. Middle: (c) *M*-type star, 56 Leonis, showing TiO bands at $\lambda\lambda$ 4584 and 4626. (d) *S*-type star, R Andromedae, showing ZrO bands which replace the TiO bands. Lines due to Sr I, Zr I, and Ba II are all strengthened. Lower: (c) Another spectral region of the *M*-type star, 56 Leonis; note that Tc I lines are weak or absent. (d) R Andromedae; note the strong lines of Tc I. The spectrum of R Andromedae was obtained by P. W. Merrill, and the upper two spectra by E. M. and G. R. Burbidge.

Who am I?

- A. Prof. **JJ/Jan** Eldridge
- **She/her/they** pronouns.
- Astrophysicist.
- “I study **exploding binary stars** while exploding the **myth of a gender binary**.”
- Work on **stars, galaxies, supernovae**....
- Twitter: **@astro_jje**



Moving academia beyond the gender binary

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Transgender and gender diverse (T&GD) people have an increasing profile in the public consciousness. In tertiary education it has become apparent that to give all students an equal chance to succeed in their studies, education providers must make changes to include T&GD students and staff. Over the past several years the University of Auckland has undertaken many initiatives in collaboration with a student group “Trans on Campus” to make academia more inclusive of T&GD people. The initiatives undertaken include formally recognizing T&GD identities as well as providing procedures and guidelines to ensure their safety. This paper identifies important steps that can be taken to make the academic environment welcoming for T&GD students and staff, as well as presenting examples where these steps have been successful.

Keywords: equity, inclusion, transgender and gender diverse (T&GD) people

Introduction

Transgender and gender diverse (T&GD) people have an increasing profile in both society and academia. However, they face distinct obstacles that many in the rest of society do not, because of the culturally normative assumptions that everyone’s sex and gender are aligned and that everyone fits into the female and male gender binary. In the tertiary education environment these obstacles can cause T&GD people to experience minority stress which has been shown to affect their performance (Powell, 2016). Making academia more inclusive of T&GD people is important for achievement and successful careers, and many of the changes also improve the environment for all in academia.

I am an Associate Professor studying astrophysics in the Department of Physics at the University of Auckland and I am transgender. My understanding of my identity has grown with time and I am non-binary, which means I don’t neatly fit into the male/female gender binary. Since 2015 I have become increasingly open regarding being transgender and increasingly aware of the problems encountered by T&GD people at all levels of academia. This awareness has been gained by personal interaction and experience with T&GD students and staff, both in person and on social media, particularly Twitter.

LGBTQITakatāpui+

LGB Q T I Takatāpui+

Lesbian Gay Bisexual Queer
Transgender Intersex
Takatāpui

LGB Q T I Takatāpui+

Lesbian Gay Bisexual Queer

Transgender

Intersex

Takatāpui

Definitions: identity

Sex - assigned at birth by reproductive capability: male, female or intersex.

Gender - the social construct that people identify as, i.e. male, female, a combination of outside the gender binary. We note that sex and gender do not have to be equal.

Gender: **Identity, Expression and Presentation.**

Gender: **Fluid, Non-conforming and Questioning.**

Transgender - individuals whose sex and gender are not aligned.

Cisgender - individuals whose sex and gender are aligned.

Intersex – individuals who do not have a clear sex based and have some characteristics of both sexes in many variations of combinations.

Gender diverse and non-binary – individuals who are outside the gender binary and include people who believe they are androgynous a mix of genders or who are gender fluid, where the gender they wish to present as varies with time.

Agender – individuals who don't experience gender.

Pangender – individuals who experience a multitude of genders.

And there are many, many more....

Definitions: sexuality

Homosexual – attracted to people of the same gender.

Gay – common term for someone attracted to the same gender.

Lesbian – a woman who is attracted to other women.

Bisexual – attracted to more than one gender.

Pansexual – attracted to people regardless of gender.

Asexual – typically doesn't experience sexual attraction.

Hetrosexual – attracted to people of the opposite gender.

Demisexual – someone who is only attracted to people they have established a strong romantic or emotional relationship with.

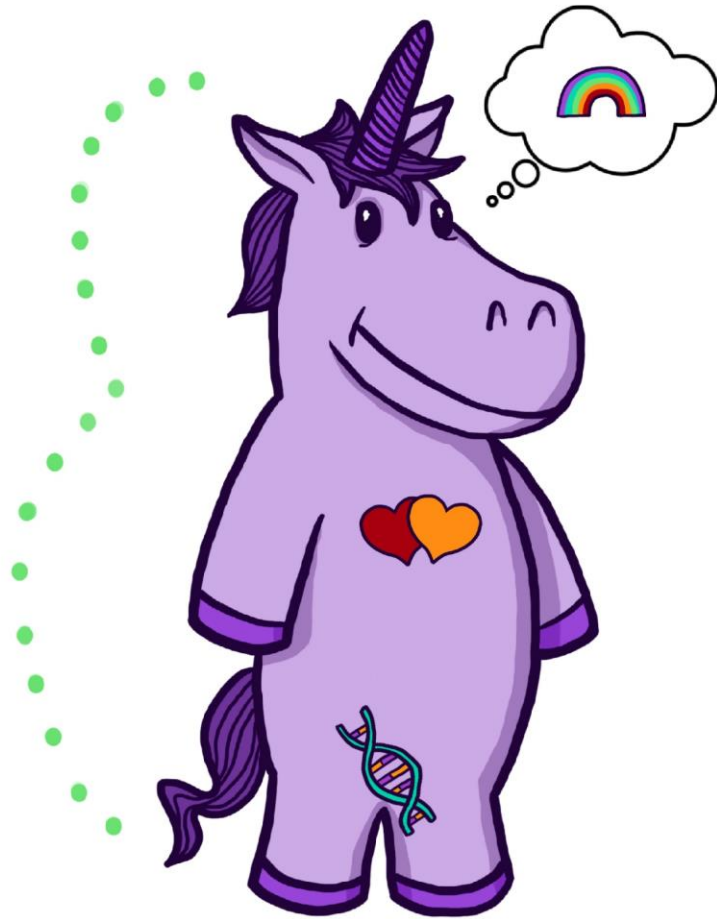
Fluid – some people find themselves fluid and their attraction can vary over time.

Queer – a complex catch all phrase... do not use unless you are in the community or sure of it's use.

And many more....

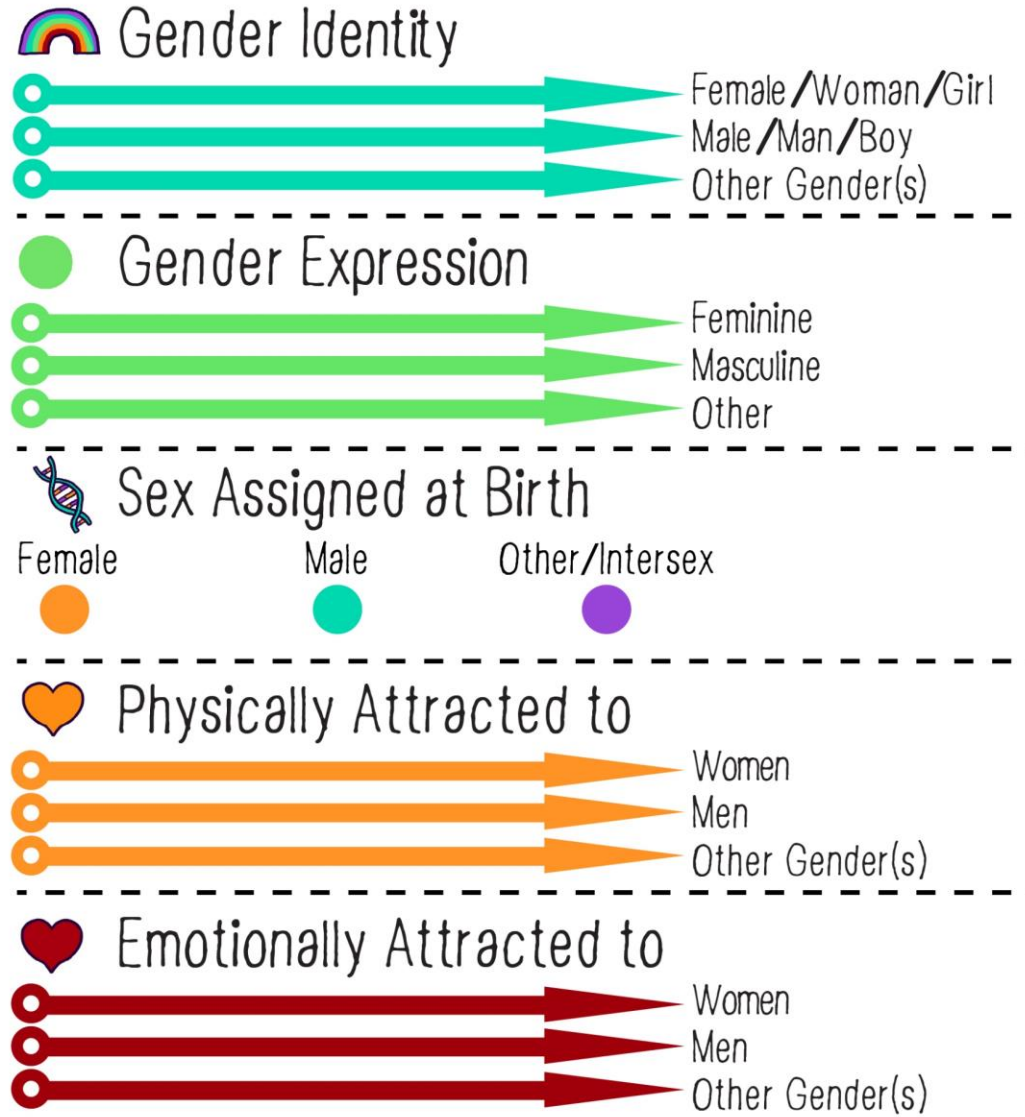
The Gender Unicorn

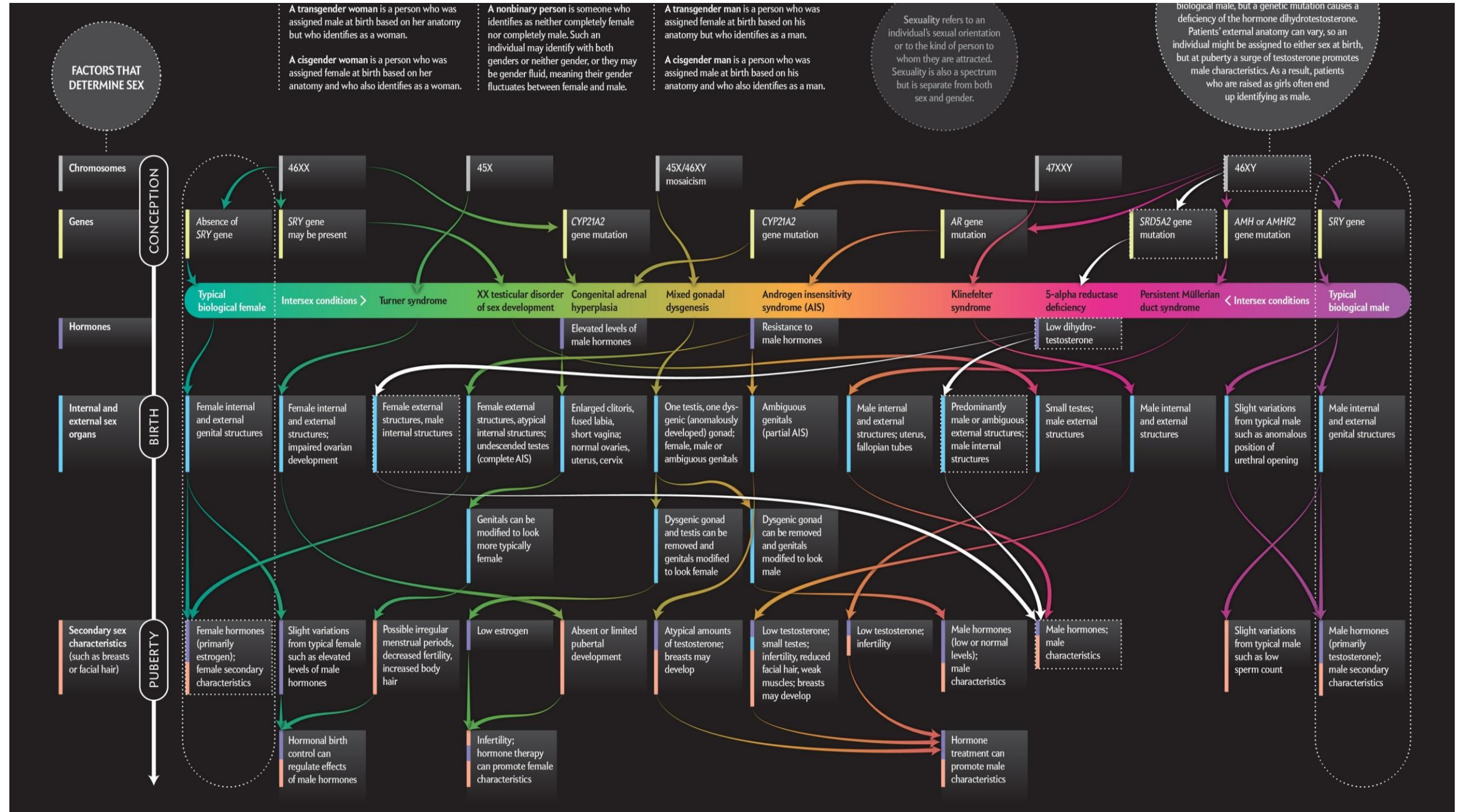
Graphic by:
TSER
Trans Student Educational Resources



To learn more, go to:
www.transstudent.org/gender

Design by Landyn Pan and Anna Moore





Credit: Pitch Interactive and Amanda Montañez;

Source: Research by Amanda Hobbs; Expert review by Amy Wisniewski *University of Oklahoma Health Sciences Center*

<https://www.scientificamerican.com/article/beyond-xx-and-xy-the-extraordinary-complexity-of-sex-determination/>

Let's bust a few myths...

Wrong Statements:

People only become LGBTQI+ after seeing other LGBTQI+ people.

LGBTQI+ people are experts in the entire rainbow community.

Bi people are just confused (bi-erasure).

Bisexual people must be promiscuous.

All LGBTQI+ people are activists.

We have all the answers and know who we are.

We don't have family life to consider.

We're fragile/confident.

You'll be able to tell us by looking at us.

Let's bust a few myths...

Correct statements:

There are a multitude of sexes and genders.

A person's gender, sex and sexuality don't have to be related.

Gender is a mix of biological and social constructs.

Non-binary genders have been in multiple cultures for a long, long time.

Not every trans person wants to transition.

Our understanding of ourselves may change with time.

"Reasonable concerns" are usually made-up scare stories to agitate anti-rainbow bias.

Understanding the impact of myths and stereotypes...

STEREOTYPES - Stereotypes are widely held ideas about a certain group of people, which are oversimplified generalizations.

PREJUDICE - Prejudices are unjustified preconceived opinions, attitudes, thoughts, and feelings about a person, which often come from believing in stereotypes about the group they belong to.

DISCRIMINATION - Discrimination is the actions (including failure to act) based on prejudice.

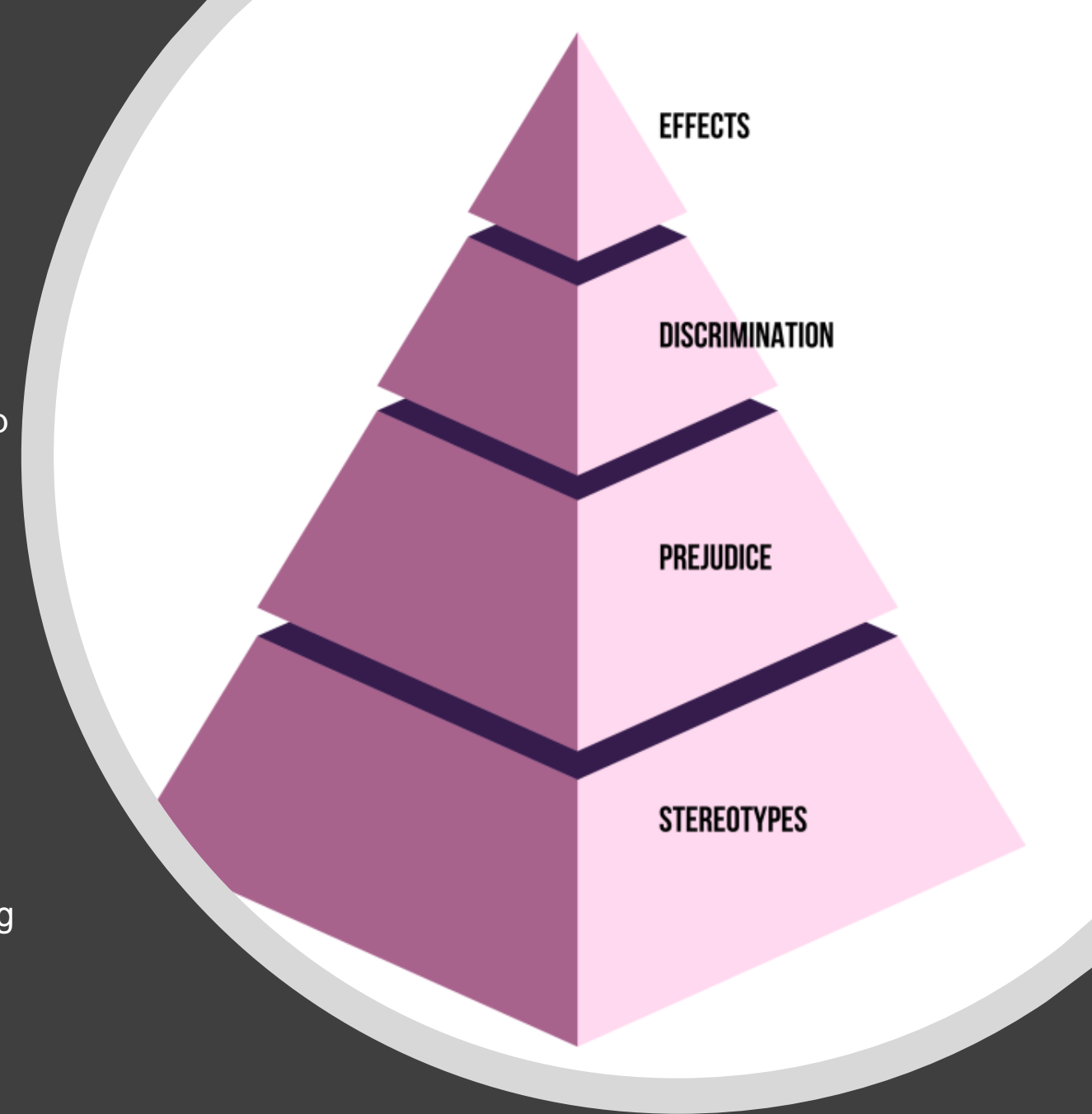
This can include interpersonal discrimination in one's private life, e.g. social exclusion, bullying and harassment, physical and sexual violence.

It can also include discrimination in public areas of life, e.g. exclusion from human rights protections, exclusion from other legal rights, exclusion from or discrimination in housing, healthcare, the justice system, accessing goods and services, recreation and sport, education, employment, etc.

EFFECTS – Rainbow communities typically excluded from contributing to society and in this case research, or not work as effectively as they could

Taken from:

<https://genderminorities.com/2020/11/20/what-is-transphobia/>





Thought experiments
from sci-fi...

(i.e. the fun bit).

ST:TNG - “The Outcast”

- Androgynous species the “J'naii” who believed they have evolved beyond male/female identities.
- Riker and Soren have a relationship but Soren is discovered and is forced to undergoes “psychotectic therapy”.
- In humans we know that gender is not a binary and there is a range. So this is not unrealistic, just a rebalanced version of the gender populations so that male/female are minorities.
- But scary parallels with treatment of trans, gender diverse and intersex people today. i.e. treatments to become “normal” if they don't fit into expected boxes.
- Note: Jonathan Frakes thinks episode not daring enough and Soren should have been more male.





Parasites/symbiotes

- . Dr. Lenara Kahn: Dax, I am not like you. I don't have a little Curzon inside me telling me to be impulsive, to ignore the rules, to give up everything that I've worked for.
- . Lt. Commander Jadzia Dax: Can you really walk away from me? From us? After all this time we're together. Don't throw that away!
- . Dr. Lenara Kahn: I don't want to! Maybe I need more time. Maybe if I go back to Trill for a while, I... I'll think it over, I... I can always come back later.
- . Lt. Commander Jadzia Dax: I wish I could believe you. But ultimately it comes down to this: if you feel about me the way I feel about you, you won't go on that transport tomorrow. And if you do leave, I think we both know... you're never coming back again.
- . **ST:DS9 "Rejoined"**

ST:DS9 – Blood Oath

- . DAX: How about just a great big hug.
- . KOR: Curzon, my beloved old friend!
- . DAX: I'm Jadzia now.
- . KOR: Well, Jadzia, my beloved old friend.



Doctor: “You should have seen me a few hours ago. My whole body’s changed. Every cell in my body burning. Some of them are still at it now, reordering, regenerating”.

Grace: “Sounds painful love.”

Doctor: “You have no idea... there is this moment when you’re sure you’re about to die and then... you’re born, it’s terrifying. **Right now I’m a stranger to myself, the’s echos of who I was, and a sort of call towards who I am and I have to hold my nerve and trust all these new instincts, shape myself towards them. I’ll be fine. In the end... hopefully...** but I have to be cos you guys need help and if there’s one thing I’m certain of, when people need help I never refuse. Right! This is going to be fun.”



What can you do?

LGBTQI+ staff/student network.

Easy name changes, sports inclusion.
Preferred names normal default.

Pride Events.

Toilets.

Things to consider in the research environment:

Be nice! Don't treat us differently.

Don't expect team members to be a mirror image of you.

People moving to a new place might for the first time feel able to be/work out themselves.

Do not out people without their consent.

Try to **not assume cis-hetro-normativity** in your research environment..

Use preferred **names and pronouns**.

Do not ask intrusive questions – test this: would you answer a similar question yourself?

Consider if **activities** are **safe** for rainbow people.

Use **inclusive language**: partner, spouse, them/they.

Use **inclusive examples**.

Do not make jokes or use extreme stereotypes.

Toilets – push for **all gender** and make gendered **safe**.

Remember **intersectionality**.

Don't try to do **everything at once**.
Make change and challenging your
biases a **habit**, it's not about doing
one thing, it's **enduring action**.

These changes benefit and
improve the environment and **for**
everyone!

5 Ways to Make Schools Safer for LGBTQ Students

1



Be an activist! Speak out when someone says something discriminatory towards the LGBTQ community.

2



Start a GSA/QSA:

Having a safe space for queer students at school can save LIVES.

3

Educate Your Teachers:



A teacher who simply knows about being LGBTQ can make a world of difference for students who are gender and sexual minorities. Schedule a conference with your teacher or speak at faculty meeting days about LGBTQ issues.

4



Host an LGBTQ Panel

Panels allow students and staff to directly ask important questions to people who can educate them.

5

Introduce a Trans-Inclusive Policy:

Trans-friendly policies set fair guidelines for school staff members who may not know what to do otherwise. Learn more at transstudent.org/policy



t transstudent
f /transstudent
@transstudent

For more information, go to transstudent.org/graphics

TSER
Trans Student Educational Resources

IT GETS BETTER PROJECT

2011 GLSEN National School Climate Survey

BE AN ALLY KNOW WHEN TO SPEAK UP!



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BY LANDYN PAN
& ETHAN LOPEZ

FOR MORE
INFORMATION, GO TO
TRANSSTUDENT.ORG/GRAPHICS

TSER **IT GETS BETTER PROJECT**
Trans Student Educational Resources

Also learn some
Rainbow
research
history!

Leonardo da Vinci

Sir Francis Bacon

Sir Isaac Newton

Florence Nightingale

Sara Josephine Baker and Louise Pearce

Alan Turing

Sally Ride

Angela Clayton

Benn Barres

Sophie Wilson

Alan Hart

https://en.wikipedia.org/wiki/Category:LGBT_scientists

Everyone is
AWESOME!

