A photograph showing three women sitting around a table in a workshop-like setting, interacting with a social robot. The robot has a stylized female face with large blue eyes and red lips, mounted on a white base. It is placed on a stack of three blue plastic crates. The woman on the left has blonde hair and wears glasses. The woman in the middle has blonde hair and wears a brown vest over a yellow shirt. The woman on the right has blonde hair in a braid and wears a grey sweater. The background consists of wooden panels.

# Social Robotics & Gender

**Hello.**

# Hello.

*Anna Henschel*

*School of Psychology/ Institute of Neuroscience*

*University of Glasgow*

*@AnnaHenschel*

*Anna.Henschel@Glasgow.ac.uk*



BANGOR  
UNIVERSITY

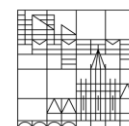


VRIJE  
UNIVERSITEIT  
AMSTERDAM



NETHERLANDS  
INSTITUTE  
FOR NEUROSCIENCE  
Master the mind

Universität  
Konstanz



UNIVERSITY of  
CALIFORNIA  
IRVINE



Culture  
Relationships  
& Health Lab

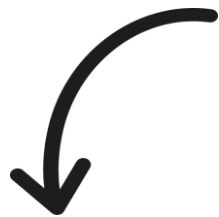
WESTERN SYDNEY  
UNIVERSITY



The MARCS Institute for Brain,  
Behaviour and Development



**10-year old Anna: big  
fan**







YOUR FAVE IS  
PROBLEMATIC





*Pygmalion asking Venus  
to animate his statue*  
**Jean-Baptiste  
Regnault (1786)**



*Alex Garland &  
Alicia Vikander*

**Ex Machina (2014)**



*David Hanson & the  
Sophia robot in 2016*  
**Hanson Robotics**



**What do social  
robots do?**





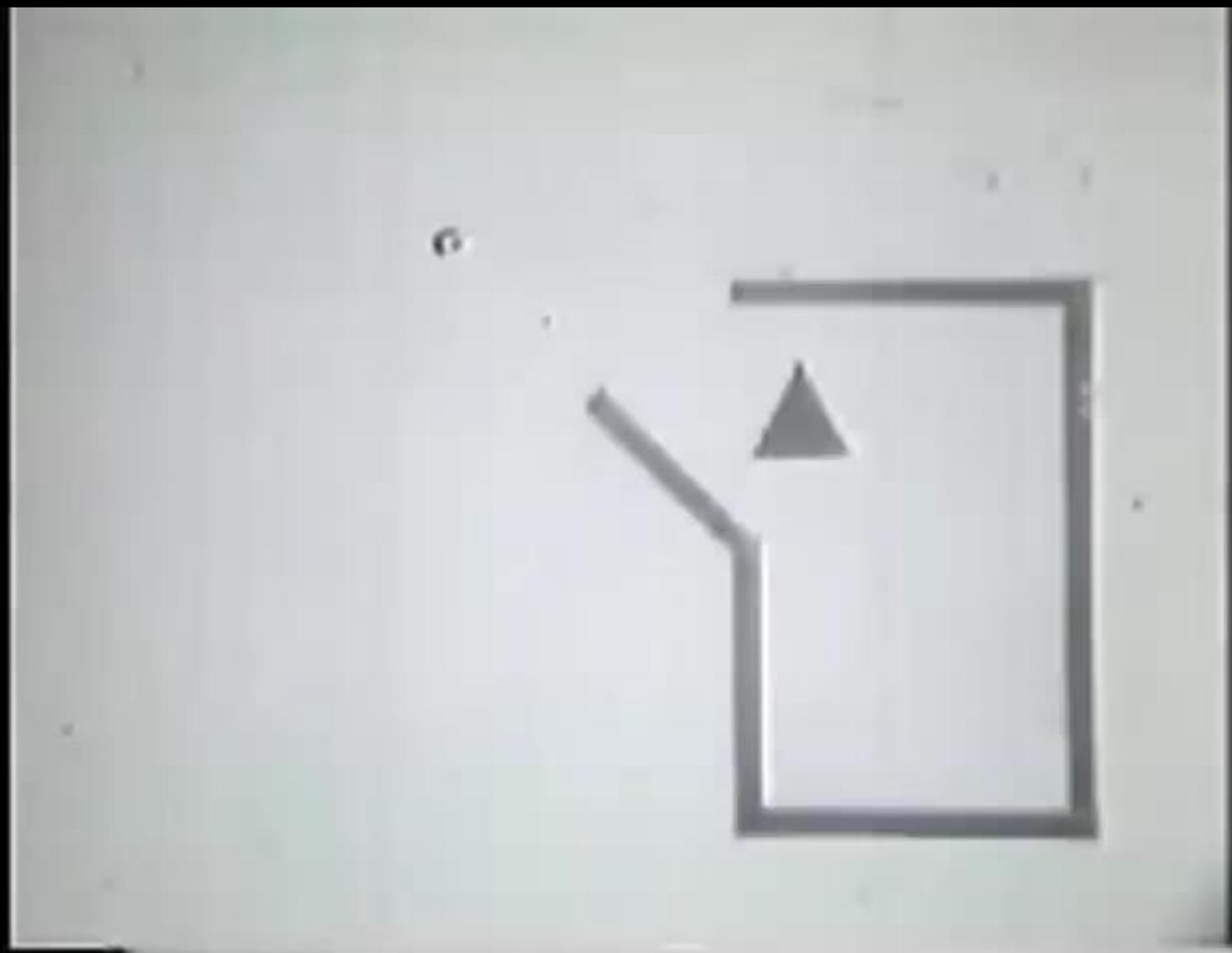


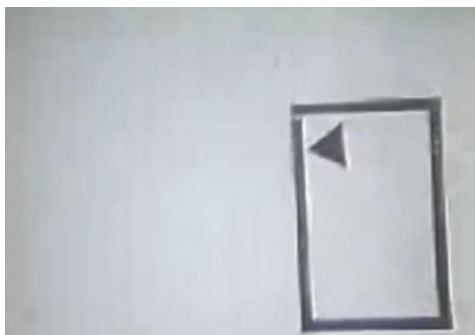




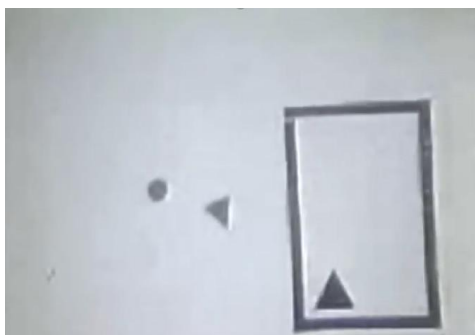
**What is  
anthropomorphism?**



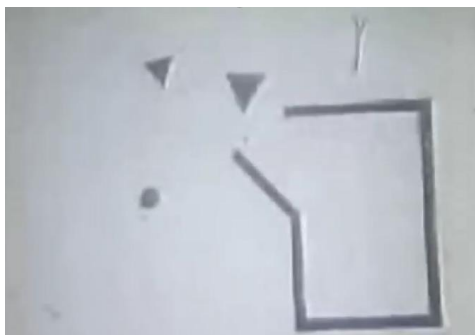




*„Triangle number-one shuts his door (or should we say line) and the two innocent young things walk in.*



***Lovers in the two-dimensional world, no doubt; little triangle number-two and sweet circle.***



*Triangle-one (hereafter known as the villain) spies the young love.”*

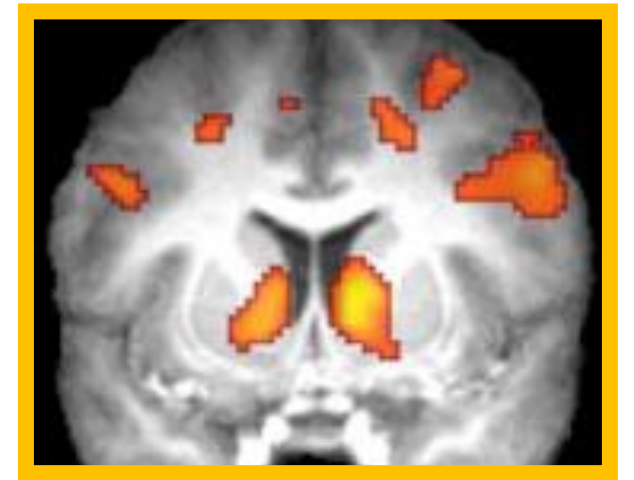
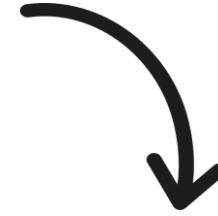
**A bit more on my  
research.**





**The Royal Edinburgh Military Tattoo**

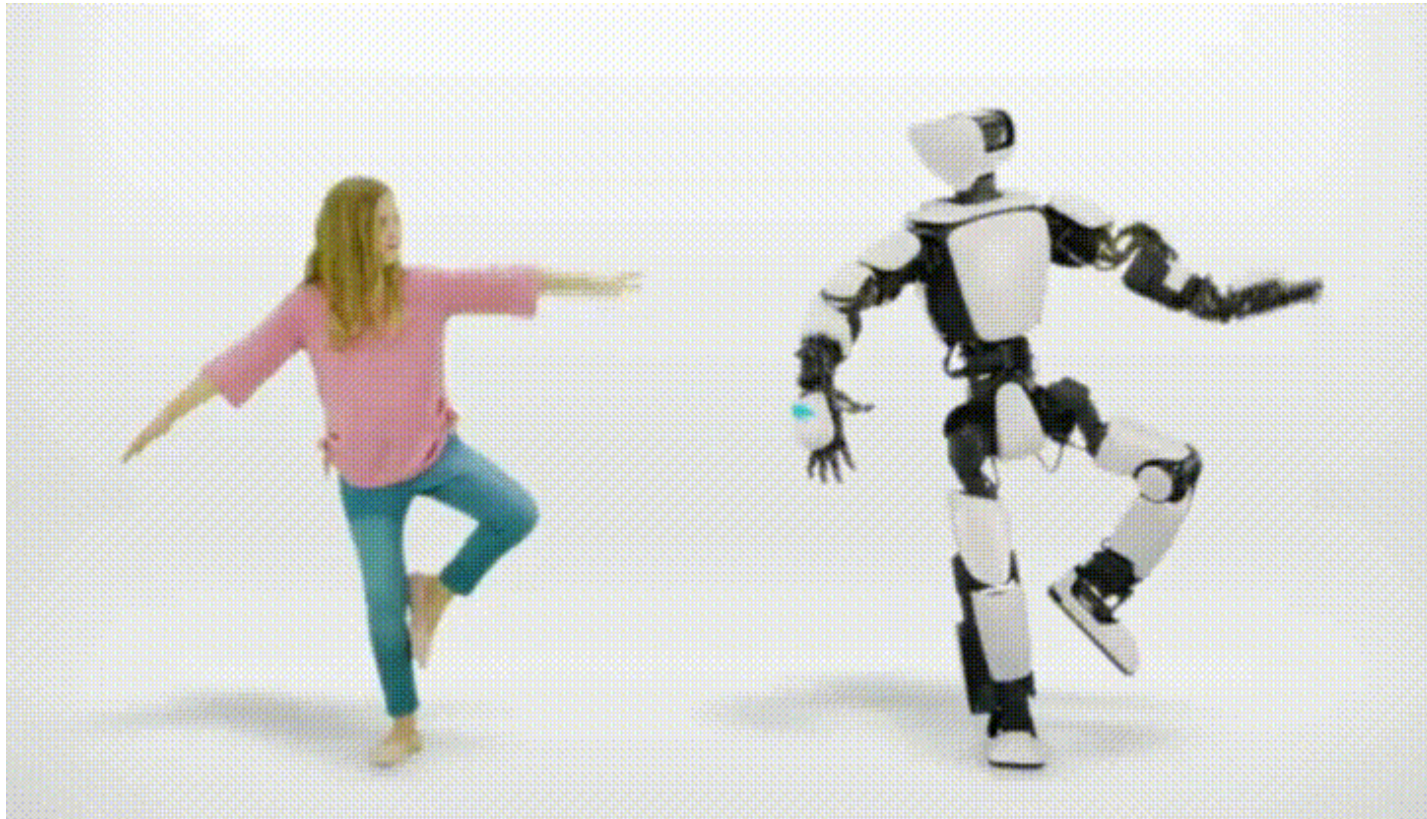
**Interpersonal  
synchrony**



*Social reward*

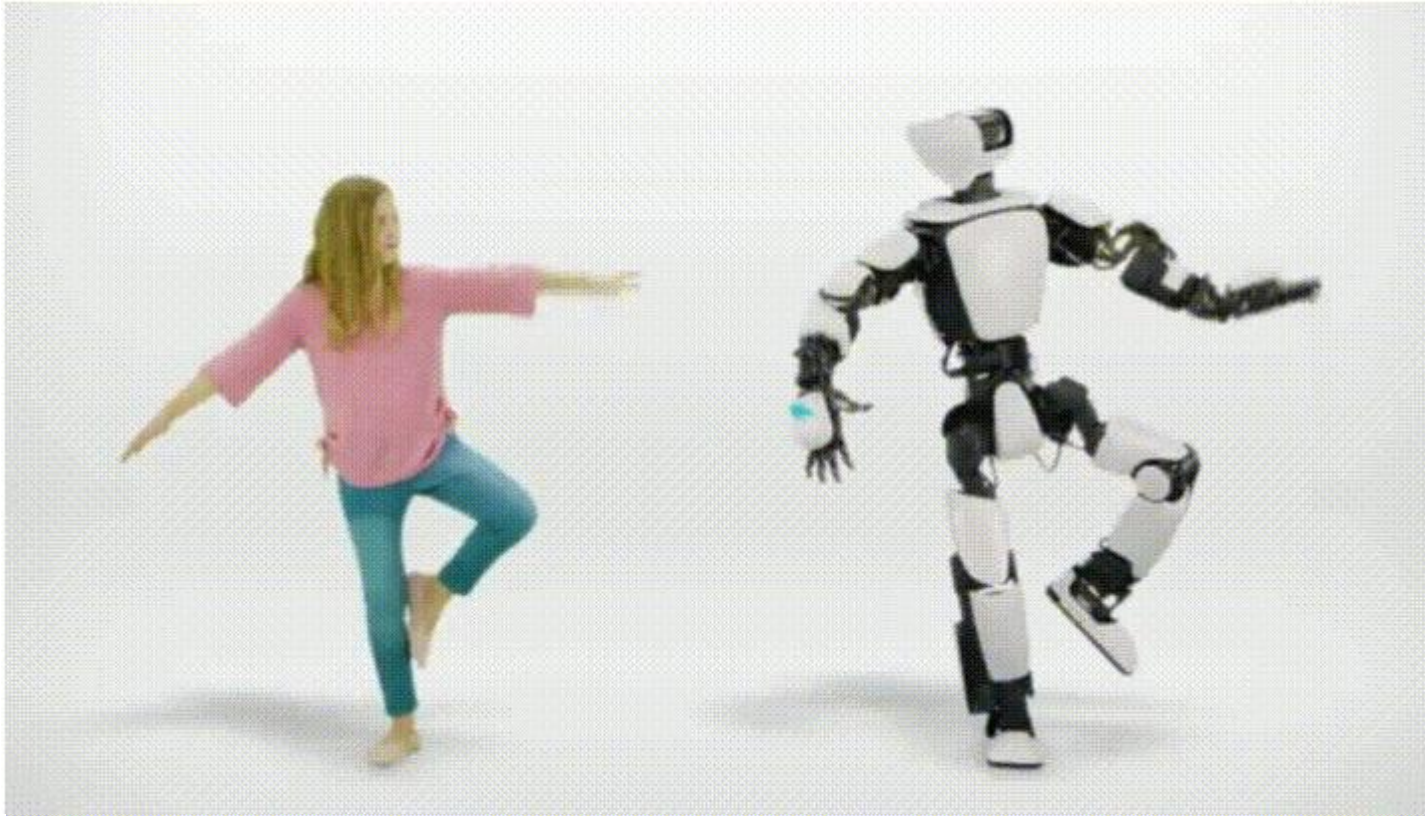


## *Synchrony as a mechanism of social understanding?*

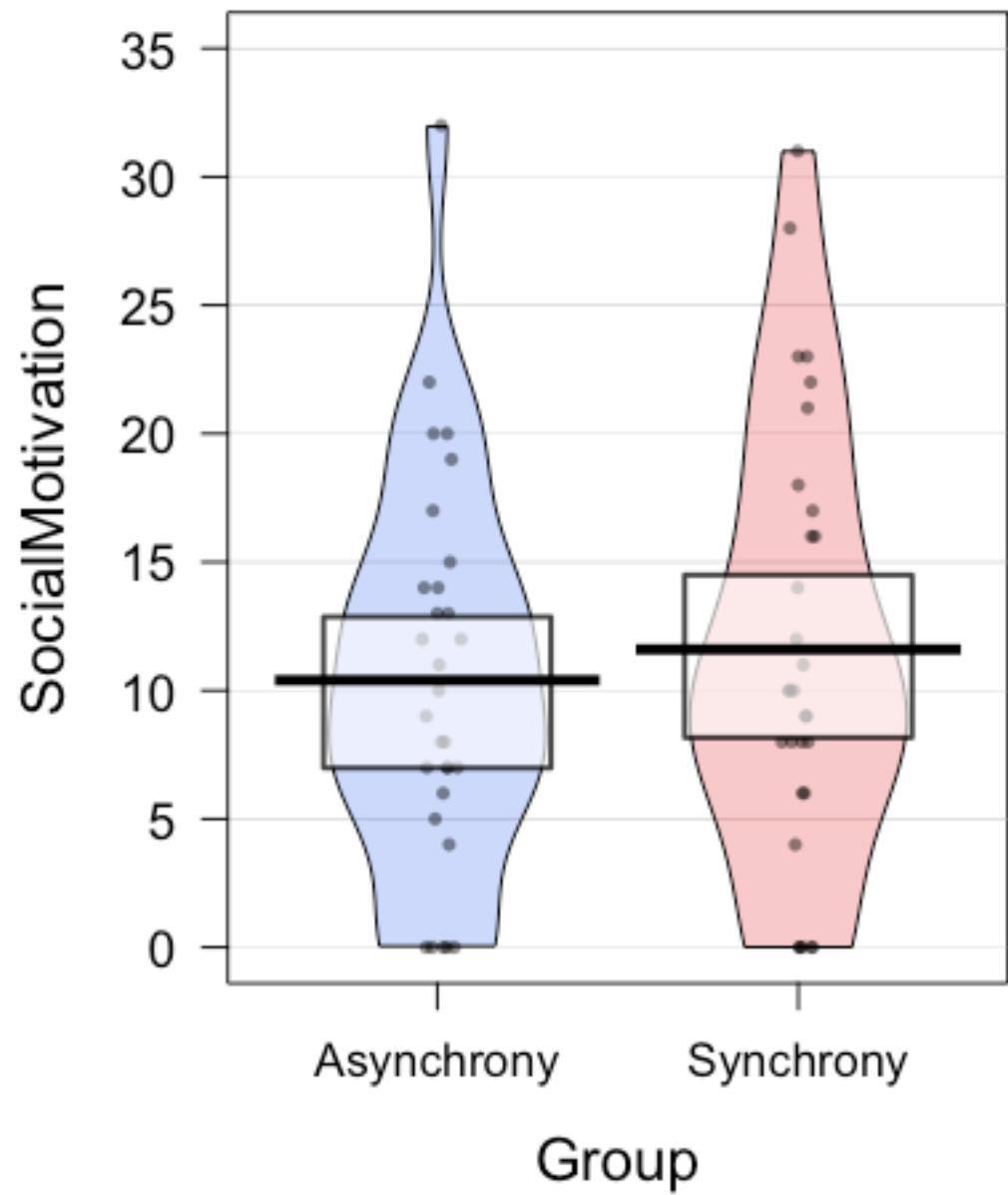
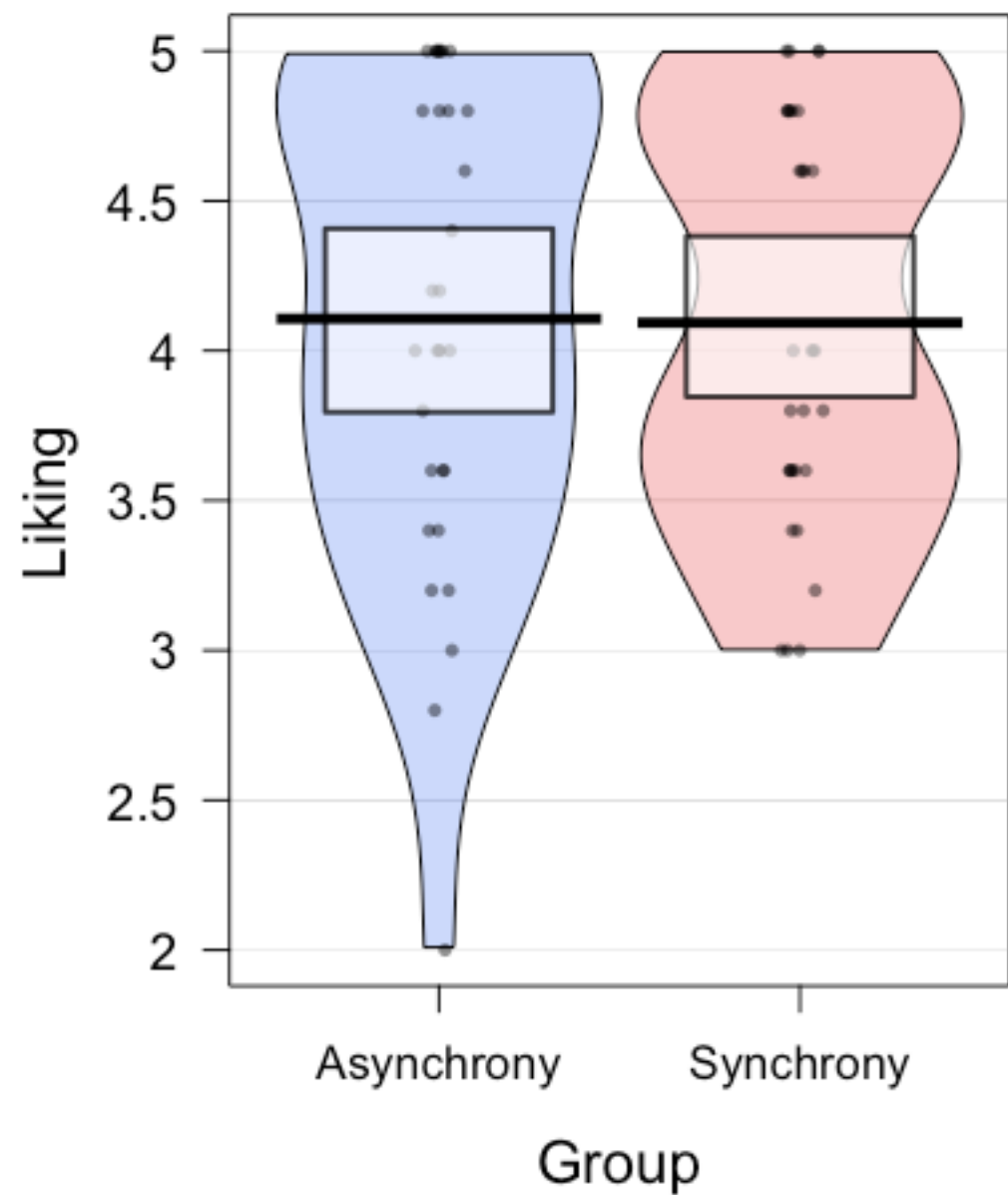




## *Synchrony as a mechanism of social understanding?*



- *Wheatley et al. (2012)*
- *Lorenz et al. (2016)*
- *Shen et al. (2015)*



# **Robots & Sexism**





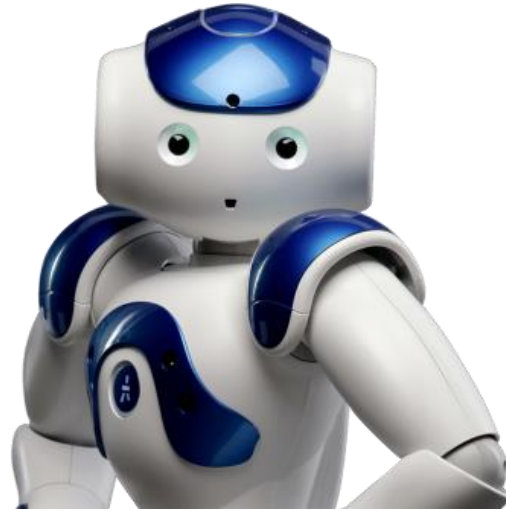
- *The male robot is rated to have more **agency** than the female robot*
- *The male robot would be more suitable for stereotypically male tasks (**repair, transport**)*
- *Participants also indicated a preference to use the female robot for stereotypically female tasks (**childcare, household**)*

**Are humanoid robots  
the solution?**





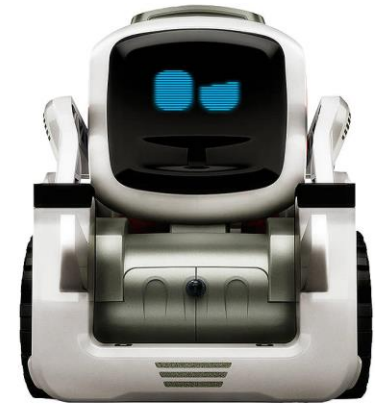
**Android**



***Humanoid***



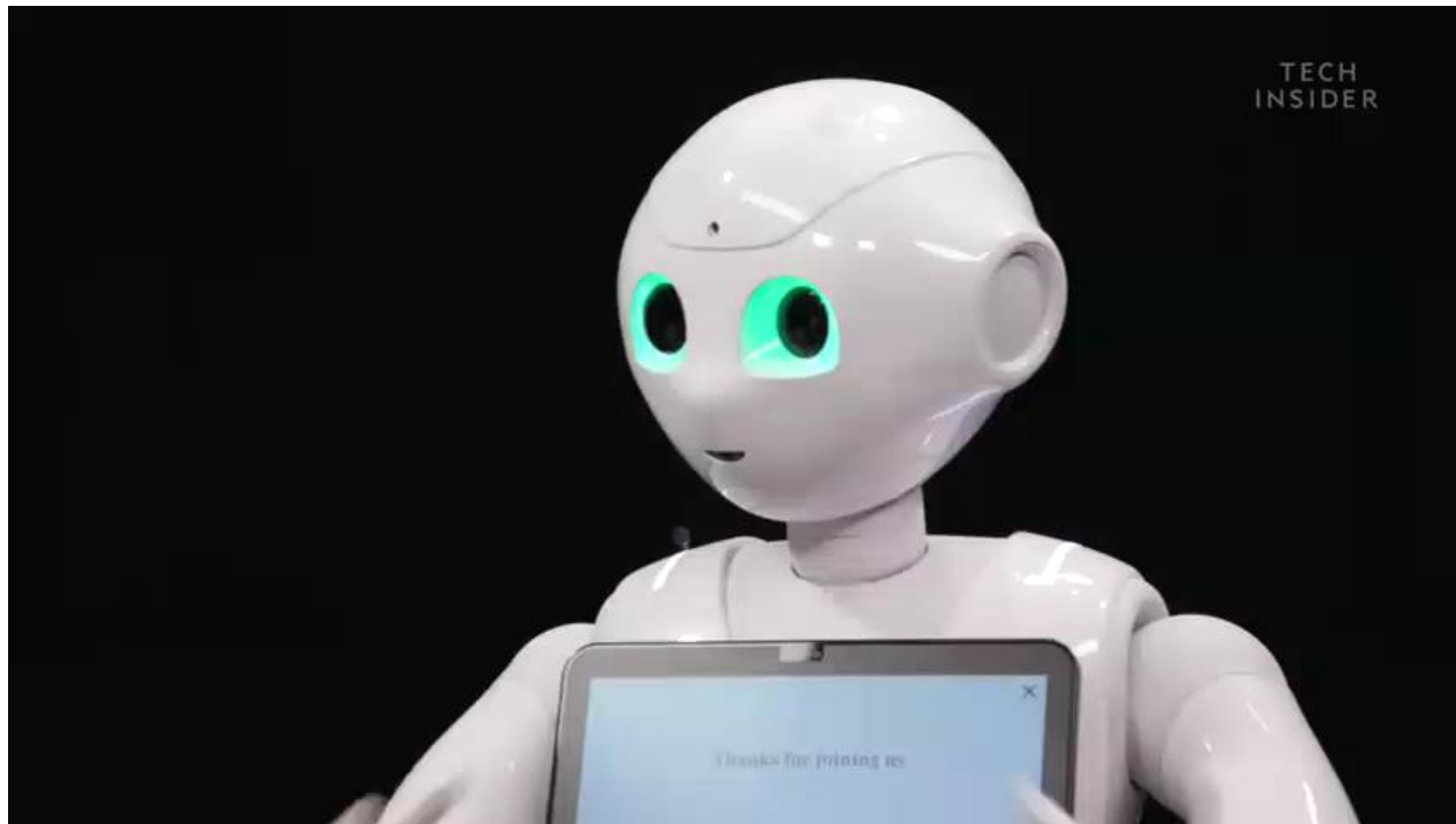
**Animal**



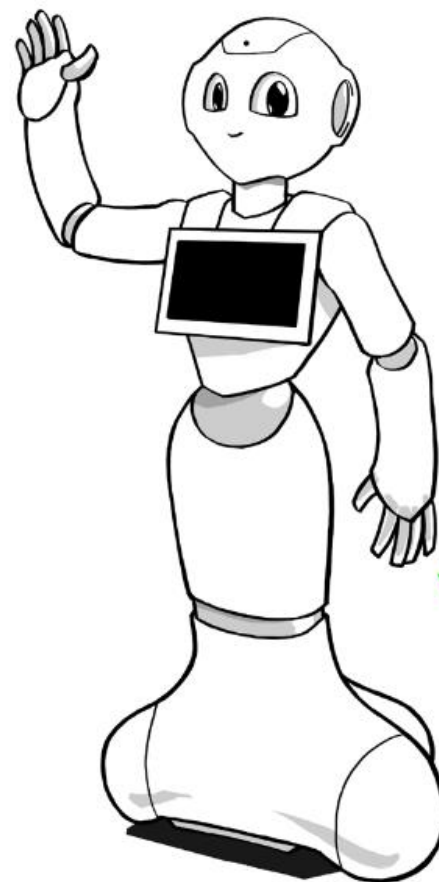
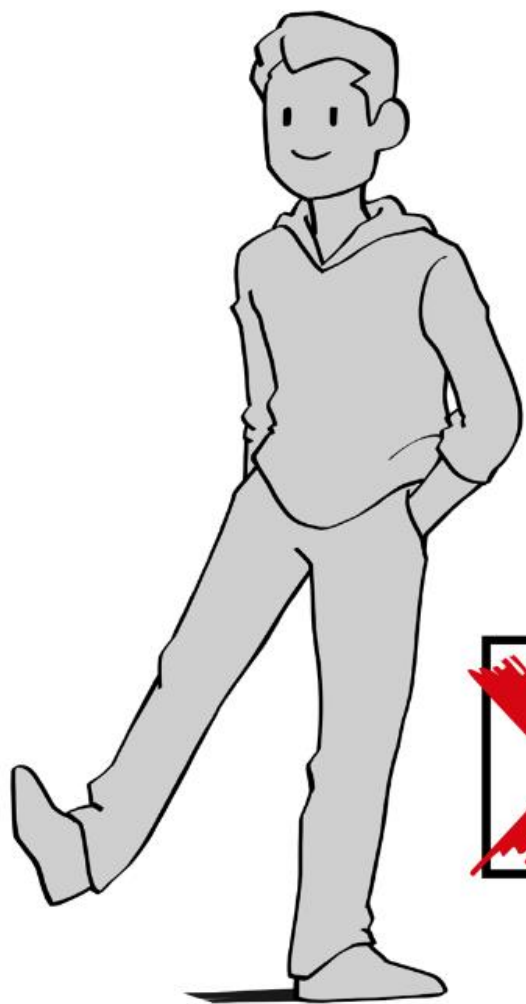
**Wall-E?**

*Introducing: Pepper!*

# *Introducing: Pepper!*







Pepper is neither male nor female, but as you get to know Pepper, don't be surprised if you find yourself referring to Pepper in a gender that makes the most sense to you.



**Seen at the Dutch Airport Schiphol (2019)**



**The Milkmaid, Johannes Vermeer (1657)**

**Considering  
feminist issues in  
my field of  
research.**



**Western, educated,  
industrialized, rich and  
democratic**



SCIENCE

# Psychology Is WEIRD

Western college students are not the best representatives of human emotion, behavior, and sexuality.

By BETHANY BROOKSHIRE

**Founded by Lisa  
DeBruine, Chris  
Chartier et al.**



Psychological Science Accelerator

a distributed laboratory network

AM

## FEATURE

# Women outnumber men in psychology, but not in the field's top echelons

A new APA report recommends ways to boost women's status and pay

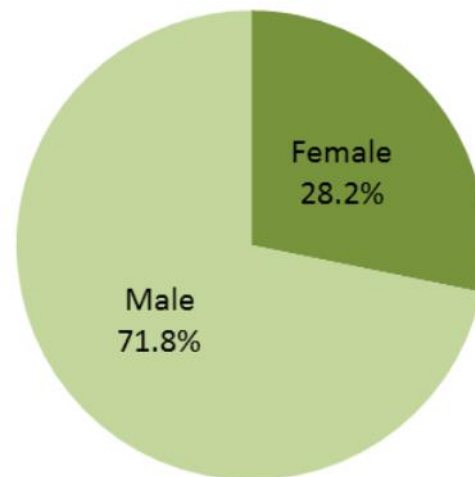
By Rebecca A. Clay

July/August 2017, Vol 48, No. 7

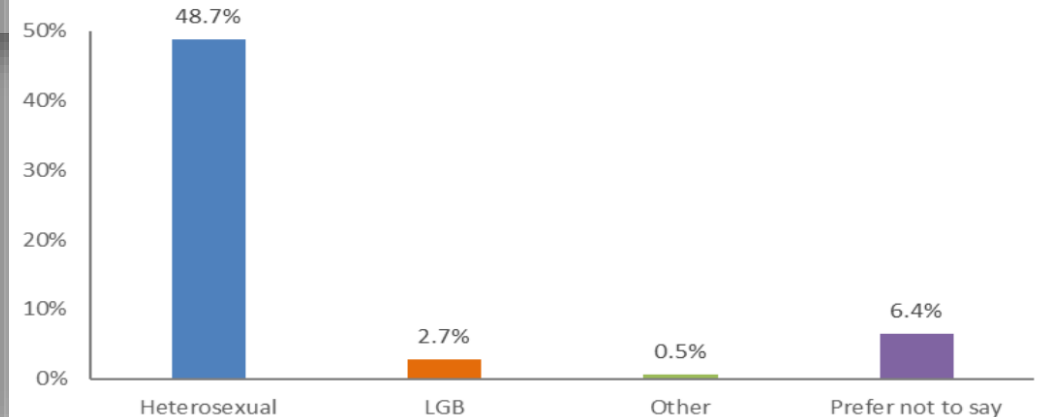
Print version: page 18



**Chart 36 - Sex by Level 10 staff**



**Chart 44 - Sexual Orientation % by Level 10  
Declarations only**



**Glasgow staff  
survey:**

**Considering  
feminist issues in  
my research  
practice.**

**The 10 Worst Questions People Ask Me**

1. **SO I KNOW I'M SUPPOSED TO BE ANSWERING YOUR QUESTIONS AND ALL, BUT FIRST, I'VE GOTTA KNOW, ARE YOU A BOY OR A GUY?**

2. **I'M SORRY, I CAN'T FOLLOW.**

3. **WHY DO WE ELEGANTS AND TESTOSTERONE LEVELS SELECT THE SAME TYPE OF GIRLS AND TOOLS IN A TECHNICAL SENSE. I DON'T WANT TO BE DIFFERENTIAL ON A SCALE THAT'S BASED ON ALL THE COMPLEXES FOR TO BE THE BEST OF US, THANKS.**

4. **SO, YOU'RE NOT A GUY?**

5. **I DON'T HAVE A GENDER.**

6. **IMAGINE... SO, SCIENTIFICALLY WE'D HAVE THOUSANDS, BUT IT'S IMPOSSIBLE TO TELL SOME OF US CAN BEAR CHILDREN MORE EASILY THAN OTHERS. SOME OF US ARE CREATED WITH MORE MUSCLE MASS, BUT SERIAL DRUGS PARTY INSIDE AND APOCALYPTICNESS... SOME OF US HAVE MORE BEASTGIRL WHILE SOME HAVE MORE TESTOSTERONE. MENTAL AND BEHAVIORAL CHARACTERISTICS ARE REFLECTED FROM THOSE LEVELS AS WELL AS FROM LIFE EXPERIENCE. MAKING IT IMPOSSIBLE TO SEE IT IN SUCH SIMPLE TERMS. EACH INDIVIDUAL'S GENES AND ANNUAL GENDER'S THAT NOT TRACED FOR YOUR OWN RACED.**

7. **LET ME ASK, WHICH SIDE OF THE STREET DO YOU WALK, VINT, WITH MY SCOOTER? BECAUSE THAT'S THE ONLY WAY...**

8. **WHICH SIDE DO YOU TELL ME, LEFT OR RIGHT?**

9. **I BELIEVE I'VE HAD ENOUGH QUESTIONS ANSWERED. THANK YOU.**

10. **WHICH SIDE DO YOU TELL ME, LEFT OR RIGHT?**

## Gloria Fraser

## Barriers TO IMPLEMENTING INCLUSIVE measures

The overwhelming majority of survey designers opt for a single item measure of gender with two possible response options: 'male' and 'female'.

These measures cannot identify transgender participants.<sup>1</sup> This affects the ability to estimate the size of the transgender population, and to examine their strengths and needs.<sup>2</sup>

We argue for the implementation of inclusive gender identity measures in quantitative research. By 'inclusive' measures, we refer to those that capture data from people of all genders.

Because no "gold standard" measure of gender identity exists, researchers must weigh the pros and cons of each approach, based on their research question.<sup>3</sup> For example, single item measures are unable to identify all transgender participants, as many transgender people do not self-identify as such.<sup>4</sup>

In many studies, the number of transgender participants is too small to allow statistical analysis.<sup>5</sup> If descriptive data is reported, however, synthesis analyses can be conducted, or data in longitudinal studies can be aggregated across time.

Issues of gender may not be the focus of a research study. Nevertheless, imposing a gender binary on respondents, or excluding them from reporting their gender, arguably represents a failure to meet ethical obligations.<sup>6</sup>

Some researchers may be concerned that inclusive measures of gender identity will confuse or offend participants. Our research using inclusive measures, however, provides evidence that high quality gender identity data can be feasibly collected.

Methodologists differ in the extent to which they advocate keeping the same questions in longitudinal surveys.<sup>7</sup> We demonstrate that longitudinal surveys can update gender measures without high rates of missing data or participant non-response.



**NZAVS** THE NEW ZEALAND  
ATTITUDES & VALUES STUDY

In the current study, we implemented an open-ended measure of gender identity in a longitudinal national probability study of social attitudes, personality and health outcomes ( $N = 15,822$ ). Previously, gender was assessed using a male/female tick box. Results showed that a small minority of participants ( $n = 15$ ) openly self-identified as transgender, or outside of the male/female binary.

This is, to our knowledge, the first study to analyse and code responses to a single qualitative measure of gender identity. We demonstrate that large-scale social surveys can feasibly implement inclusive measure of gender without compromising data integrity. For the full coding scheme, visit the [NZAIVS website](https://nzaivs.org).

- SINGLE ITEM: expanded options

What is your gender identity?

- ☐ Male  
☐ Female  
☐ Trans Man/Trans Male  
☐ Trans Woman/Trans Female  
☐ Genderqueer  
☐ Different Identity (please state)

**Q SINGLE ITEM: TRANSGENDER STATUS**

Some people describe themselves as transgender when their gender identity is different from their sex that was documented at birth. For example, a person whose sex was documented as male on their original birth certificate, but who identifies as a woman. Do you consider yourself to be transgender?

- ☒ Yes
- ☐ No
- ☐ Unsure

## 2 SINGLE QUALITATIVE ITEM

What is your gender identity?

## THE TWO-STEP APPROACH

What is your gender identity?

What sex were you assigned at birth, on your original birth certificate?

- ☒ Male
- ☐ Female
- ☐ Indeterminate
- ☐ No sex listed



# What is your gender identity?



Male



Female

## What is your gender identity?

- ☒ Male
- ☐ Female
- ☐ Trans Man/Trans Male
- ☐ Trans Woman/Trans Female
- ☐ Genderqueer
- ☐ Different Identity (please state)

*“There is no such thing as a single-issue struggle because we do not live single-issue lives.”*

**- Audre Lorde, 1982**

# UNIVERSITY OF GLASGOW PGR BLOG



AUG  
21

Is a PhD for?

ALL COLLEGES



AUG  
19

From the Diary of a UofG  
Future World Changer

PGR EXPERIENCES, WOMEN IN RESEARCH



AUG  
14

CREATe-ing a Guide for  
New PhD Students

PGR EXPERIENCES, RESOURCES

IMPACT IN  
SECONDS



AUG  
5

Impact in 60 Seconds: A  
Past Winner's Experience  
and Advice



JUL  
31

Meet the Inter  
Fatzin

BLOGGERS, ARTS,  
STUDEN



JUL  
19

from the 18/19



(FOR MY VERSION)



JUL  
17

PhD life on the road

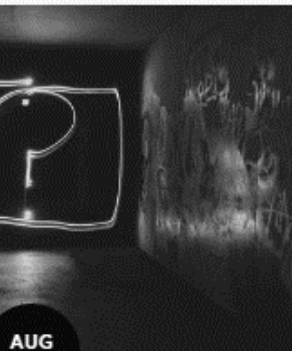


JUL  
24

Following G







AUG  
21

Is a PhD for?

ALL COLLEGES



JUL  
19

from the 18/19



From

F

PGR



MAR  
8

# Making Our Research Intersectional

ALL COLLEGES, WOMEN IN RESEARCH, BEYOND PGR



(FOR MY VERSION)



JUL  
17

PhD life on the road



JUL  
24

F



JUL  
31

at the Inter

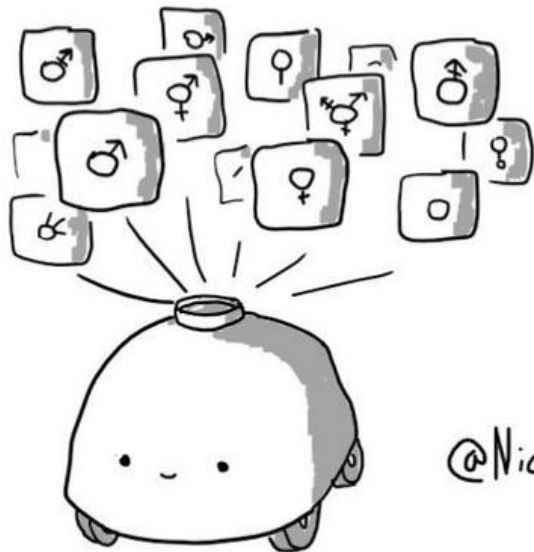
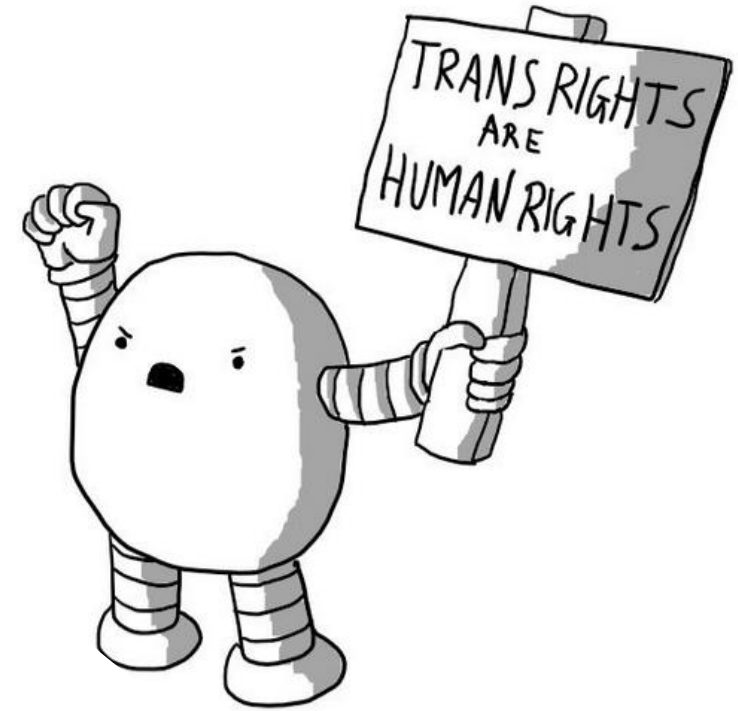
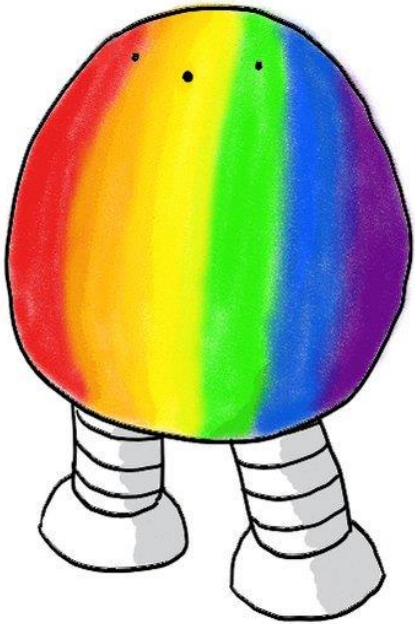
Fatzin

GGERS, ARTS,

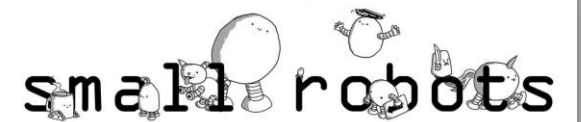
STUDE



# **Robots & Representation!**



@NickTheStatsGuy







Following

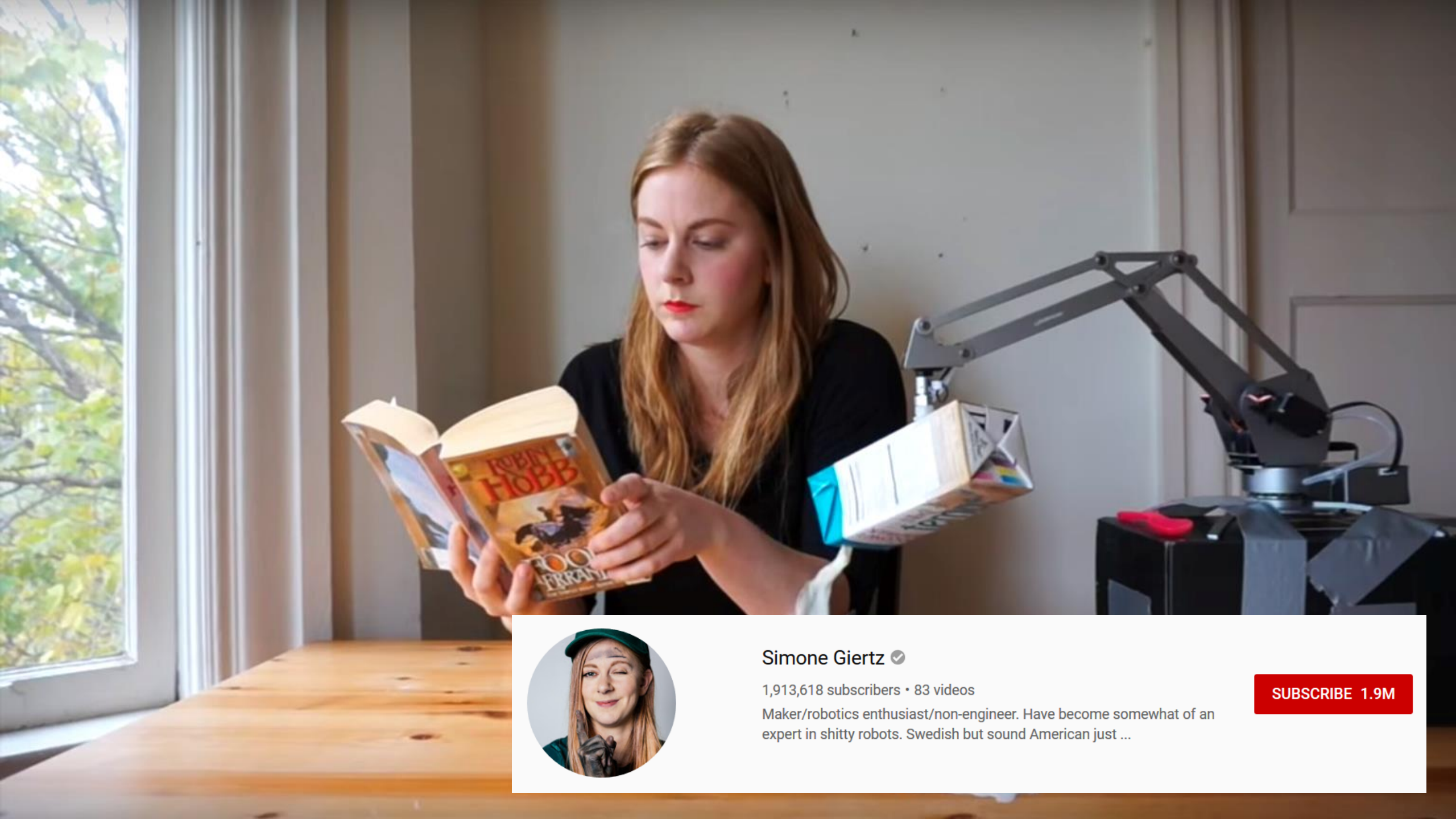
**small robots**

@smolrobots

here are some drawings of helpful small robots for you // the hard left's favourite automata // see thread below to support us! // they/we/us ❤️🤖

📍 small robot development lab 🔗 [twitter.com/smolrobots/sta...](https://twitter.com/smolrobots/status/924444444444444444) 📅 Joined November 2017





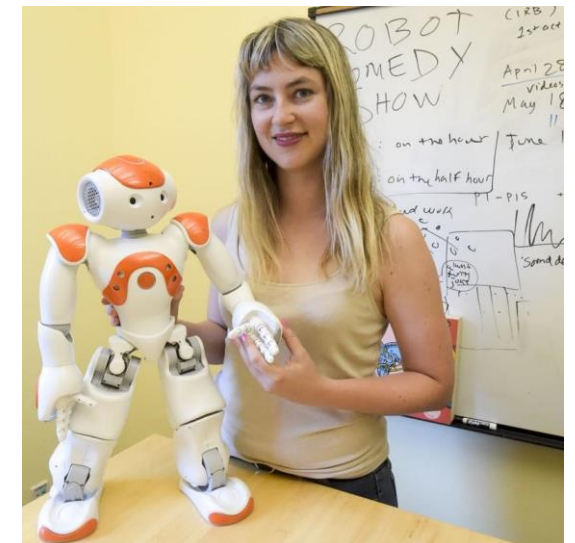
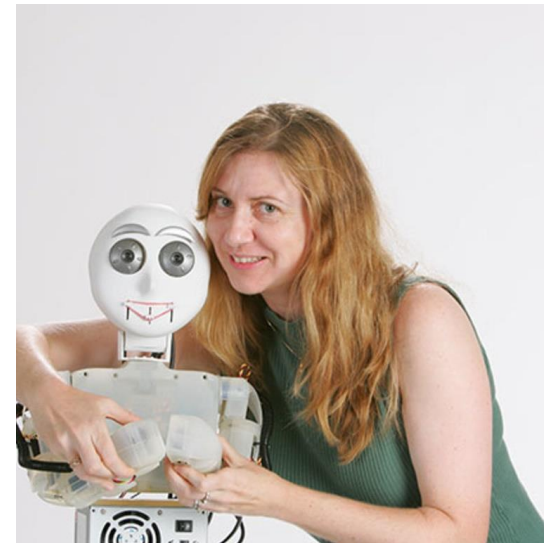
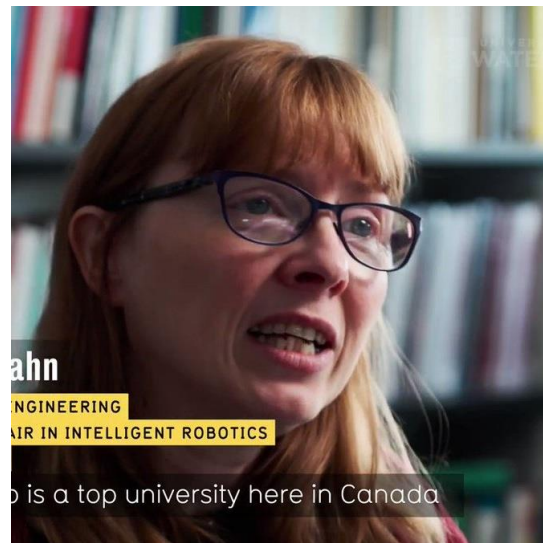
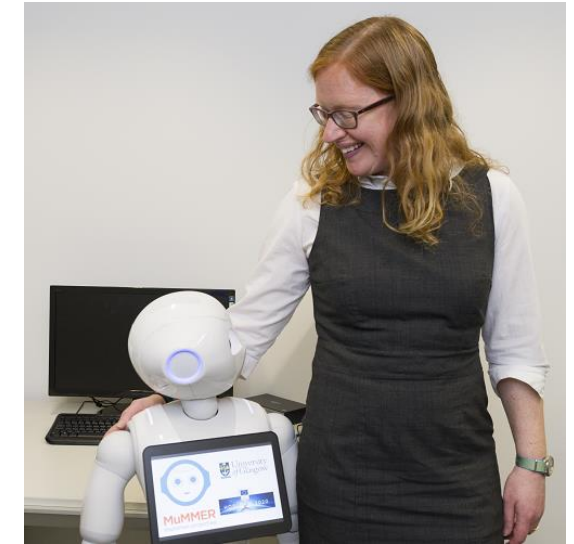
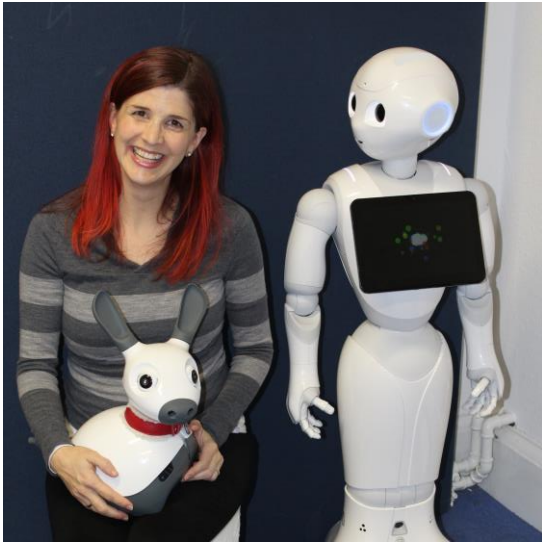
Simone Giertz ✓

1,913,618 subscribers • 83 videos

Maker/robotics enthusiast/non-engineer. Have become somewhat of an expert in shitty robots. Swedish but sound American just ...

SUBSCRIBE 1.9M

# Important voices in Social Robotics:



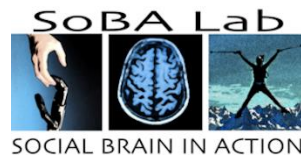


# Keep in touch!

*Email: Anna.Henschel@glasgow.ac.uk*

*Twitter: @AnnaHenschel*

*Website: <http://www.so-bots.com/>*



# References - Papers

- Chevallier, C., Kohls, G., Troiani, V., Brodtkin, E. S., & Schultz, R. T. (2012). The social motivation theory of autism. *Trends in cognitive sciences*, 16(4), 231-239.
- Eyssel, F., & Hegel, F. (2012). (s) he's got the look: Gender stereotyping of robots 1. *Journal of Applied Social Psychology*, 42(9), 2213-2230.
- Heider, F., & Simmel, M. (1944). An experimental study of apparent behavior. *The American journal of psychology*, 57(2), 243-259.
- Henschel, A., & Cross, E. S. (in press). The effect of interpersonal synchrony with a robot on likeability and social motivation. *Interaction Studies*. doi: 10.31234/osf.io/q9ku8
- Kokal, I., Engel, A., Kirschner, S., & Keysers, C. (2011). Synchronized drumming enhances activity in the caudate and facilitates prosocial commitment-if the rhythm comes easily. *PLoS One*, 6(11), e27272.
- Lorenz, T., Weiss, A., & Hirche, S. (2016). Synchrony and reciprocity: Key mechanisms for social companion robots in therapy and care. *International Journal of Social Robotics*, 8(1), 125-143.
- Shen, Q., Dautenhahn, K., Saunders, J., & Kose, H. (2015). Can real-time, adaptive human–robot motor coordination improve humans' overall perception of a robot?. *IEEE Transactions on Autonomous Mental Development*, 7(1), 52-64.
- Wheatley, T., Kang, O., Parkinson, C., & Looser, C. E. (2012). From mind perception to mental connection: Synchrony as a mechanism for social understanding. *Social and Personality Psychology Compass*, 6(8), 589-606.



# References -Links

- „My fair lady“ (1962)
- „Ex Machina“ (2014)
- Heider & Simmel animation (1944), <https://www.youtube.com/watch?v=VTNmLt7QX8E>
- Pepper video: <https://www.youtube.com/watch?v=zJHyaD1psMc>
- Softbank Robotics: „How to create a great experience with Pepper“, [http://doc.aldebaran.com/download/Pepper\\_B2BD\\_guidelines\\_Sept\\_V1.5.pdf](http://doc.aldebaran.com/download/Pepper_B2BD_guidelines_Sept_V1.5.pdf)
- „Psychology is WEIRD“, <https://slate.com/technology/2013/05/weird-psychology-social-science-researchers-rely-too-much-on-western-college-students.html>
- APA, <https://www.apa.org/monitor/2017/07-08/women-psychology>
- „Toward Inclusive Gender Identity Measures“, Gloria Fraser, <https://cdn.auckland.ac.nz/assets/psych/about/our-research/nzavs/NZAVSTechnicalDocuments/gloria-gender-poster.pdf>
- „Making our research intersectional“, Danielle Schwertner, <https://uofgpgrblog.com/pgrblog/2019/3/6/making-our-research-intersectional>
- Small Robots, <https://twitter.com/smolrobots?lang=en>
- Simone Giertz, <https://www.youtube.com/channel/UC3KEoMzNz8eYnwBC34RaKCQ>