**WWEST**
Westcoast Women in Engineering, Science and Technology

**NSERC CRSNG**
Chairs for Women in Science and Engineering
Chaires pour les femmes en sciences et en génie

# Social Identity Threat in the Workplace

**Social identity threat** is an anxiety or concern people experience in situations where their social group is underrepresented, devalued, or stereotyped to be inferior.[1,2]

This can be subtly triggered through conversations, or other interactions with peers and colleagues.

Social identity threat can be experienced when taking a challenging academic test, and results in poor performance on the test (known as stereotype threat[3,4]).

## Why Does This Matter for STEM Professions?

STEM fields have low representation, and a high attrition rate of women.[6] For example, 11.7% of licensed engineers in Canada are women,[7] and women are leaving the profession at a higher rate than men.[8]

STEM fields, particularly engineering, often involve a lot of collaboration between coworkers. Research has shown that for female engineers, work conversations with male colleagues can be a source of social identity threat and can lead to psychological burnout.[1]

Actively addressing subtle behaviours that trigger social identity threat are critical steps in creating inclusive and safe workplaces, and retaining more women in STEM fields. This can be done through raising awareness about social identity threat, and creating spaces that welcome all identities.

Gender inclusive policies can result in all employees feeling more accepted and competent in daily conversations, and more engaged in their work.

## Can Conversations Cue Social Identity Threat?

When we share ideas with others, we are **vulnerable** to a variety of responses.

Negative responses (critiques, dismissals) can trigger feelings of **incompetence** and **lack of belonging**.

When you belong to an unrepresented group, either of these feelings can cause social identity threat.

## Psychological Burnout

affects individuals & organizations.

Often involves personal:[5]
- **Exhaustion**
- **Disengagement**
- **Inefficacy**

Negatively impacts **mental health**[5]

Reduces **organizational productivity**[5]

Predicts **employee turnover**[5]

## The Workplace Study[1]

Pairs of engineers who work together documented **daily conversations** at work.

## Findings

Anxiety
"I don't belong here"
Incompetence
....

On days when a conversation with a male colleague cued feelings of incompetence and a lack of acceptance...

**For men**: no change in social identity threat levels

**For women**: higher levels of social identity threat

Women reported experiencing **more daily social identity threat** than their male colleagues, predicting:

**mental exhaustion** & **psychological burnout.**

**All employees** feel more accepted and competent in daily conversations in workplaces with **gender inclusive policies.**

## References

1.  Hall, W., Schmader, T., & Croft, E. (2015). Engineering exchanges: Daily social identity threat predicts burnout among female engineers. *Social Psychology and Personality Science, 6*(5), 528-534.
2.  Steele, C., Spencer, S., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. *Advances in Experimental Social Psychology, 34*, 379–440.
3.  Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review, 115*, 336–356.
4.  Steele, C. M. (1999, August). Thin ice: Stereotype threat and black college students. *The Atlantic Monthly*, 28, 44–47, 50–54.
5.  Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*, 397–422.
6.  Hill, C., Corbett, C., & St. Rose, A. (2013). *Why so few?: Women in science, technology, engineering and mathematics.* Washington, DC: AAUW.
7.  Engineers Canada. (2014). *2013 Membership survey*. Retrieved from http://www.engineerscanada.ca/national-membership-report/
8.  Hunt, J. (2010). Why do women leave science and engineering? (NBER Working paper 15853). Cambridge, MA: National Bureau of Economic Research.

## Recommended Readings

1.  http://www.reducingstereotypethreat.org/

## About WWEST 2015-2020

Westcoast Women in Engineering, Science and Technology (WWEST) is the operating name for the 2015-2020 NSERC Chair for Women in Science and Technology (CWSE), BC and Yukon Region. Our mission is to promote science and to engage students, industry, and the community to increase the awareness and participation of women and other under-represented groups in science, technology, engineering, and mathematics (STEM). WWEST works locally and, in conjunction with the other CWSE Chairs, nationally on policy, research, advocacy, facilitation, and pilot programs that support women in science and engineering.

## About the 2015-2020 WWEST Chairholder

Dr. Lesley Shannon P.Eng is an Associate Professor and Chair for the Computer Engineering Option in the School of Engineering Science at Simon Fraser University. Dr. Shannon studies computer systems design. She works in a rapidly growing field that combines custom computing hardware and software to design and implement application-specific computer systems for applications in a wide range of areas including robotics, machine learning, aerospace and biomedical systems, multimedia applications, and cloud computing. She teaches both undergraduate and graduate students in the area of Computer Engineering; she received the 2014 APEGBC Teaching Award of Excellence in recognition of her classroom and out-of-class mentoring activities and her contributions in leading a redesign of the School's undergraduate curriculum at SFU. Dr. Shannon has long been an advocate of increasing the diversity of students and workers in science- and engineering-related fields and was instrumental in developing programs to support a successful transition from high school into university.