

Before we get started with the next talk:

Grab a card at the front if you were not given one already.

Find the other people who have the same symbol as you on their card,
sit together and introduce yourselves.

The definition of “mathematician,” and what it means for our communities

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ICIAM, July 17 2019

Disclaimers

- I am constantly learning about the topic of this talk. I hope you will learn something today as well.
- Active learning is the best way to engage with new material!
- Difficult discussion topics, feel free to step out as needed, or reach out to me.

If you just walked in:
Please find your group using the symbol on the card that was given to you
(grab a card at the front if you don't have one).

**Then, in your group, list on a card what first comes to mind
when you hear the word “mathematician.”**

Definitions influence... everything

Our mathematical theories are built on our definitions of the mathematical objects we want to study.

Our mathematical communities are built upon our definition of the word “mathematician.”

Get in your groups again. Think of the words on your index card from the previous activity, and find a few ways in which they affect our mathematical community (in learning, research, teaching, mentoring, etc). List those ways on another index card.

Alternate definitions? Alternate communities?

If there are some things we want to change about our mathematical communities, we need to start at the root: our definition of “mathematician.”

In your group again: what could be a new definition of “mathematician”?

What would you like to come to mind when you hear the word “mathematician”?

From the Cambridge Dictionary: “someone who studies, teaches, or is an expert in mathematics.”

The problem is all the subtext, the biases, the assumptions, the stereotypes.

How to intervene

Source of inspiration: Nicole Noll, Lecturer in Studies of Women, Gender, and Sexuality and Preceptor in Psychology, Harvard University.

“Confronting Prejudiced Comments: Effectiveness of a Role-Playing Exercise” by Lawson, McDonough, Bodle.

Your task: still in your groups, you will role play the situation on the next slide, and a possible response.

- Each person should pick a role: student 1, student 2, bystander, coach.
- The coach observes and will give feedback to the bystander at the end of the role play, the others role play while trying to stay in character.

Some practice

The situation: You (the bystander) overhear the following conversation on the first day of class.

Student 1: Nice to meet you. So what course are you headed to?

Student 2: Calculus 1! I can't wait! I think I might want to be a math major!

Student 1: And you're a first-year? You're too far behind to be a math major...

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- The coach observes and will give feedback to the bystander at the end of the role play, the others role play while trying to stay in character.

Wrap-up

I hope the role-play felt useful! I encourage you to try this, with friends or colleagues, using other situations of interest to you.

Why I wanted to do this talk (and this minisymposium):

- We are not just mathematical brains doing math, we are humans doing math. And we are humans in systems and cultures and yes, those affect us and so they affect our math, and our math community.
- Some tools to adjust the culture, using bystander intervention to engage each other in critical conversations.

What is one thing from today you will take back to your classroom, colleagues or department?

Thanks so much for participating!