PERCEPTIONS OF PREPAREDNESS AND SUCCESS INFORM UNDERGRADUATES' FEELINGS OF BELONGING

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Anant, 1967; Langevin, 1999; St-Amand, Girard, & Smith, 2017

Academic Belonging → Academic success
Program retention
Academic motivation
Fewer disciplinary problems

Catalano et al., 2004; Freeman et al., 2007; Goodenow, 1993; Johnson et al., 2007

SOURCES OF BELONGING

Academic Belonging

Academic success
Program retention
Academic motivation
Fewer disciplinary problems
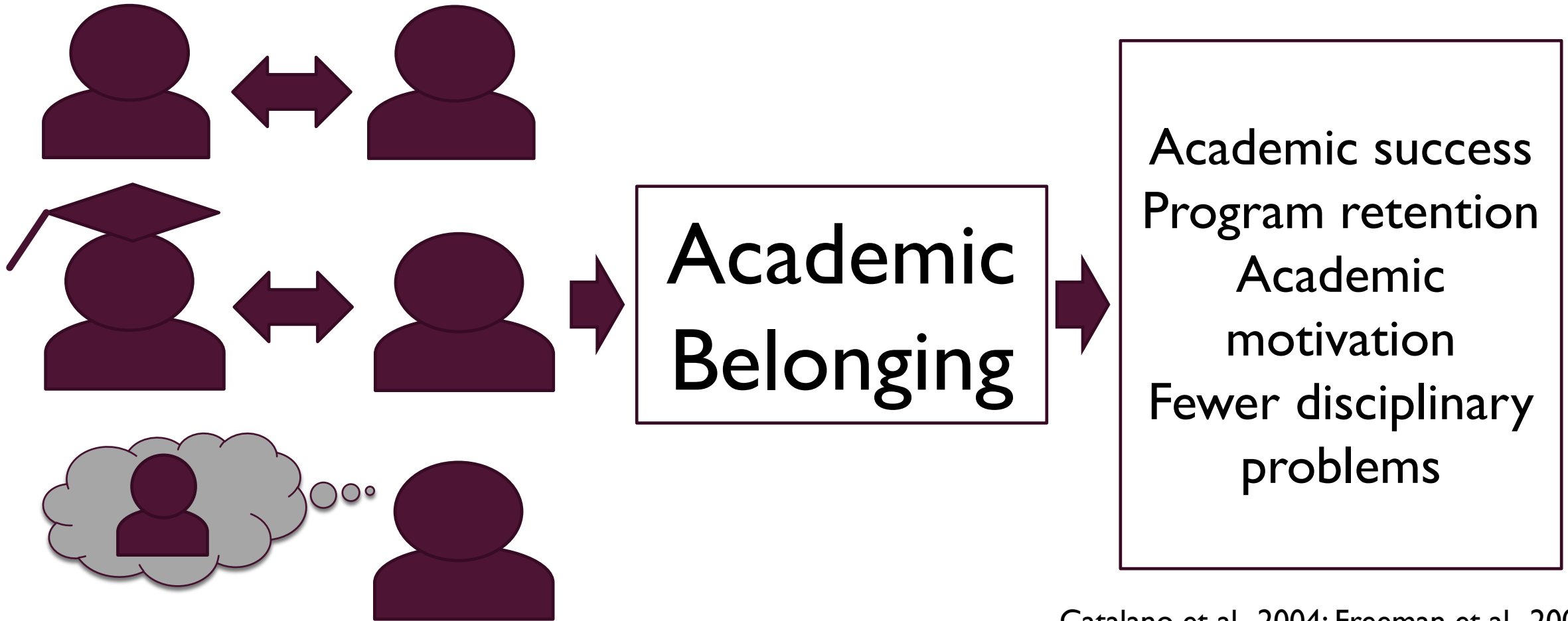
Catalano et al., 2004; Freeman et al., 2007;
Goodenow, 1993; Johnson et al., 2007

STUDY GOAL

- RQ1: Which factors in challenging college classes influence students' feelings of belonging?

- RQ2: Do the factors associated with positive belonging differ from those associated with negative belonging?

PARTICIPANTS

- Participants recruited through local identity-based affinity groups for students
  - All participants within two years of graduation, compensated for their time
  - 25 students recruited; some provided demographic information
- Sessions conducted as focus groups on Zoom
  - Eight focus groups held over four weeks, each lasted about 1 hour
  - Focus groups included pre-scripted questions focused on overcoming challenges with math learning
  - "How did [the challenges you've had learning math] affect your sense of belonging in math classes, school, or organizations?"

METHOD

- Deductive codes to capture experiences, resources used, identity and belonging, and persistence
  - Added emergent inductive codes when necessary
  - Interrater reliability over 80%, reconciled to 100% after discussing differences
- For segments with belonging code, we added analytic memos describing key ideas discussed

THEMES: FACTORS INFLUENCING BELONGING

- RQ1: Which factors in challenging college classes influence students' feelings of belonging?

EXAMPLE THEME: PREPAREDNESS

- ONLY occurred when discussing negative feelings of belonging
- Three main experiences
  - High school did not prepare them for college
  - Introductory college courses did not prepare them for more advanced courses
  - Teachers did not help students who were underprepared

RESULTS: PREPAREDNESS

- High school example (Julio: Latino, male):

- "It was more apparent to me in college being like, okay, **I see some difference in preparation**. I feel like I'm missing something."

RESULTS: PREPAREDNESS

- Introductory course example (Joe, no demographic info):

- "In [higher math courses], prerequisites really don't prepare you much....initially you always feel like **you probably weren't meant for this class**, it's kind of too hard."

RESULTS: PREPAREDNESS

- Teacher help example (Drew, no demographic info):

- [After seeking help, Drew said professor responded]: "I don't think I have the ability to teach you what **you should already know by now**."

- Soon after, Drew dropped the course out of discouragement from being so far behind.

RESULTS: PREPAREDNESS

- Self-absolute standard:
  - "It was more apparent to me in college being like, okay, I see some difference in preparation. **I feel like I'm missing something.**" (Julio: Latino, male)

- Social comparison standard:
  - "I think that insecurity of **not having as strong of a foundation as these other students**… so, like, even if I thought I was right, I would just kind of be like, 'Oh, I'm not sure, I could be totally off-base." (Asa: Middle Eastern, female)

THEMES: FACTORS INFLUENCING BELONGING

- RQ2: Do the factors associated with positive belonging differ from those associated with negative belonging?
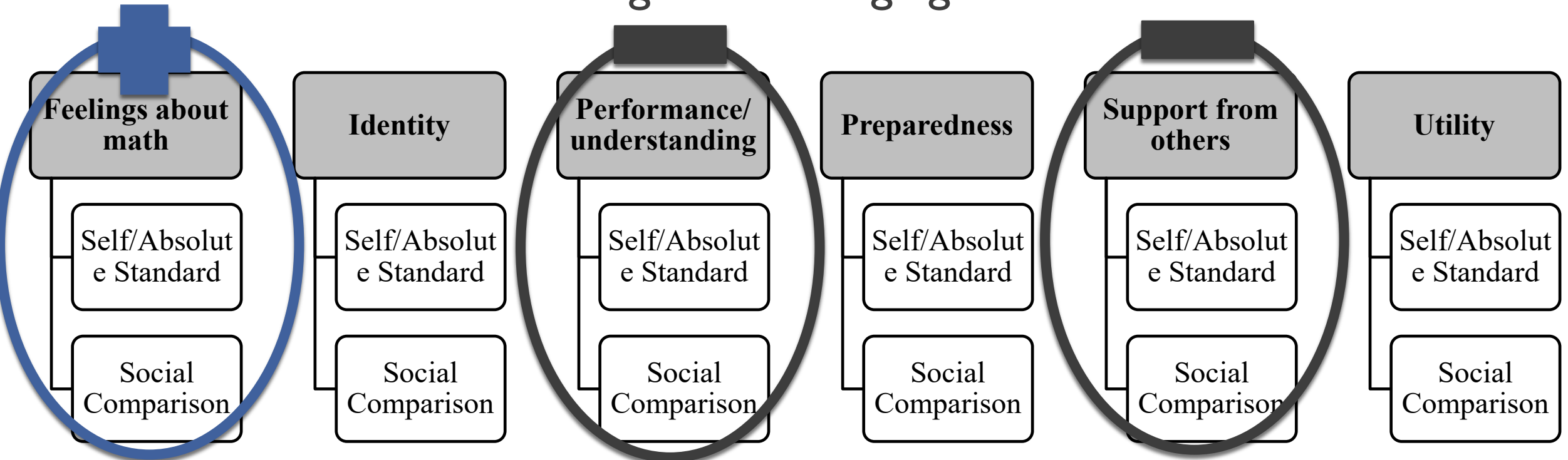
POSITIVE: FEELINGS ABOUT MATH

- I would say that **I'm a math person because I enjoy it**. And I think it's really fun. And I just really like learning it. But I don't think I'm very naturally good at it. (Maria: Latina, female)

NEGATIVE: PERFORMANCE/UNDERSTANDING

- For me, **whenever I struggle with classes like that it makes me feel like I'm dumb**, basically. It makes me think that oh, **maybe I don't belong at an institution**… I get in my own head and I'm like, am I good enough for this school? Am I smart enough? (Crystal, no demographic info)

NEGATIVE: SUPPORT (FROM FAMILY)

- What was actually most challenging for me as a child was knowing that **I couldn't depend on my parents the same ways that my peers could** in that situation… It makes you feel very isolated as a child. (Robin: Asian, female)

NEGATIVE: SUPPORT (FROM TEACHERS)

- My pre-calc teacher was also my calc teacher. But he kind of discouraged me from taking AP Calc. And **it made me feel like I wasn't good enough** to take AP Calc… **I was afraid to ask for help because I knew he didn't want me in the class anyways**. (Leslie: Asian, female)

DISCUSSION: PERCEPTIONS OF COMPETENCE MATTER

- Perceptions of competence, support matter
  - *Particularly* for creating negative feelings of belonging when they're missing
- Positive feelings about math can bolster belonging
  - Even when facing difficulty