




# WE REAL COOL

RECONSIDERING THE "COOLING OUT" PHENOMENON  
AMONG BLACK LEARNERS IN REMEDIAL MATHEMATICS COURSES

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# WE REAL COOL

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AMONG BLACK LEARNERS IN REMEDIAL MATHEMATICS COURSES



We real cool.  
We left school.

"WE REAL COOL"

It little hurts me now to know  
I shall not go

"OLD MARY"

-GWENDOLYN BROOKS, *THE BEAN EATERS*, 1960





A stylized illustration of a woman with dark hair, wearing a yellow top, using a traditional abacus. The abacus has blue beads on its rods. The background is dark with horizontal bands.

HOW DO WE UNPACK THE ROLE OF  
MATHEMATICS AS A CURRICULAR GATEKEEPER?

HOW DO WE SHED LIGHT ON THE ROLE OF  
MATHEMATICS AMID TRANSITIONS TO HIGHER  
EDUCATION?

WHAT DO LEARNERS EXPERIENCE IN REMEDIAL  
MATHEMATICS COURSES?

WHAT DO BLACK LEARNERS— OVERREPRESENTED  
IN THESE COURSES—EXPERIENCE IN RELATION TO  
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COOLING  
OUT  
PHENOMENON IN  
EDUCATION

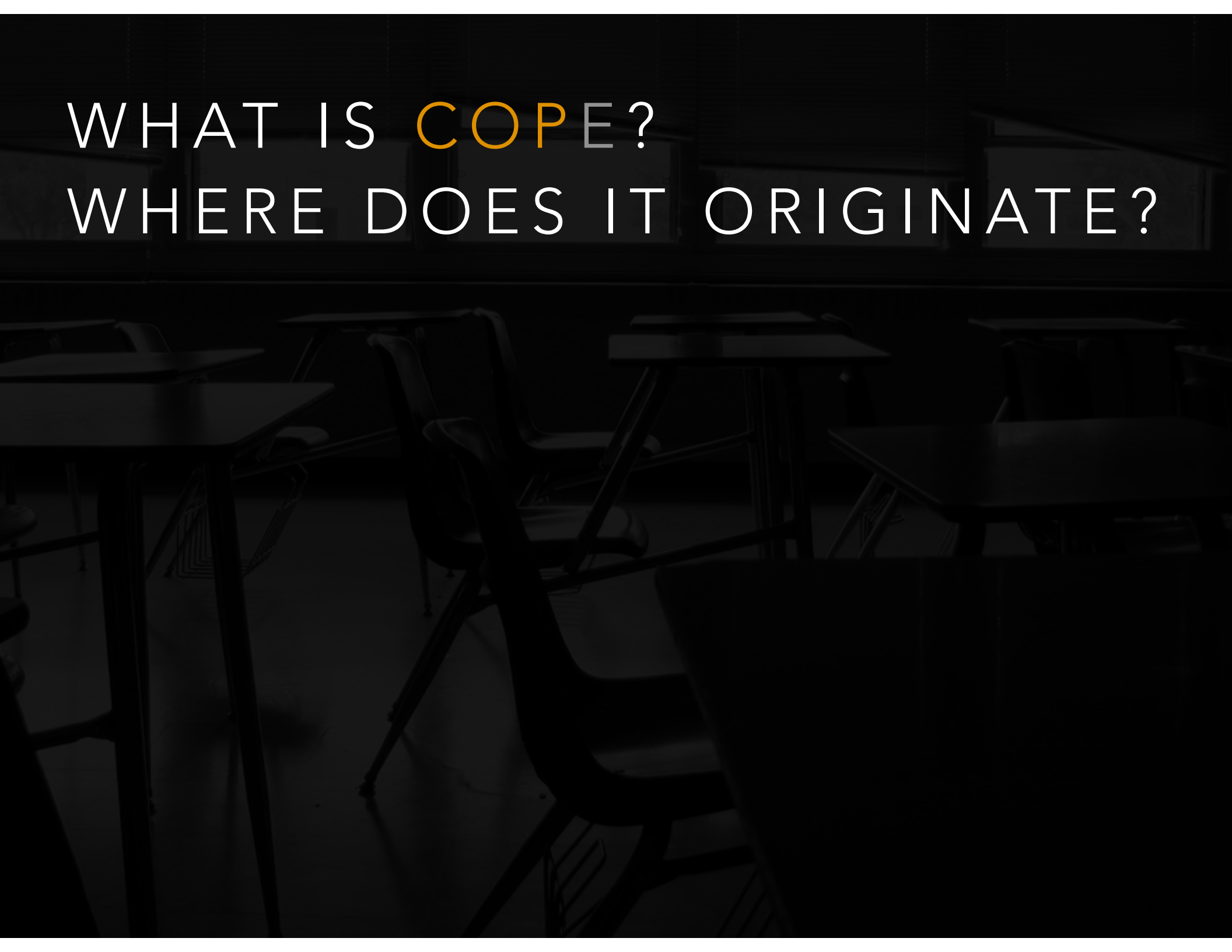
# STRUCTURE OF THE TALK

- WHAT IS COPE?
- WHERE DOES IT ORIGINATE?
- INTUITING COPE AS PHENOMENON
- OPERATIONALIZING COPE: FRAMEWORKS
- STUDYING COPE: CONTEXTS AND DESIGN
- FINDINGS FROM NICOLE
- DISCUSSION AND PARTING QUESTIONS



WHAT IS COPE?

WHERE DOES IT ORIGINATE?



# WHAT IS COPE?

COPE refers to situations in which individuals' curricular aspirations are in some way deterred, invalidated, or denied while, at the same time, the person is strategically encouraged to view the outcome as less unfavorable than it might have seemed initially. Put differently, a person who is cooled out is methodically persuaded to alter their expectations based on the influence of some other entity—whether it is another person(s), an institution or institutional mechanism (e.g., program), or some other kind of agent.

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# WHAT IS COPE?

## WHERE DOES IT ORIGINATE?

1. learner "suffers a [curricular] loss"
2. learner is strategically encouraged by an other(s) to view the curricular loss—or setback of some kind—as **not as unfavorable** as it may have been initially regarded

# WHAT IS COPE?

## WHERE DOES IT ORIGINATE?

- **Goffman**, 1952, *Psychiatry*: "On Cooling the Mark Out: Some Aspects of Adaptation to Failure"
- **Clark**, 1960, *American Journal of Sociology*: "The 'Cooling-Out' Function in Higher Education"
- **Bahr**, 2008, *Research in Higher Education*: "Cooling Out in the Community College: What is the Effect of Academic Advising on Students' Chances of Success?"
- **Nielsen**, 2015, *Sociology of Education*: "'Fake it 'til you make it': Why Community College Students' Aspirations 'Hold Steady'"

### ALSO SEE:

CLARK, B. R. (1962) THE "COOLING OUT" FUNCTION REVISITED. IN G. B. VAUGHN (ED.), NEW DIRECTIONS FOR COMMUNITY COLLEGES: QUESTIONING THE COMMUNITY COLLEGE ROLE. SAN FRANCISCO, CA: JOSSEY-BASS



WHAT DOES COPE LOOK  
LIKE WHEN IT HAPPENS

- Child & Family Psychology
- Economic Recession
- Higher Education
- Gender Studies
- Labor Studies
- Urban Special Education
- Law-School Socialization
- Social Services for the Poor
- Whale-Watching Tourism

COPE

HAPPENS



WHAT DOES COPE LOOK  
LIKE WHEN IT HAPPENS?

# INTUITING COPE

## METHODOLOGICAL FRAMING

According to Dowling (2007), “phenomenological intuiting” is the “heart of phenomenological reduction” and provides an “eidetic understanding of what is meant in the description of the phenomenon under investigation” (p. 132).



CREDIT: MAX GINSBURG, "THREE-CARD-MONTE," 1978, OIL ON CANVAS





CREDIT: MATTHEW R. MORRIS, 2016





CREDIT: MAX GINSBURG, "THREE-CARD-MONTE," 1978, OIL ON CANVAS





Lookout

Shill/Cooler

Lookout

Mark

Operator/Roper

Muscle

Mark

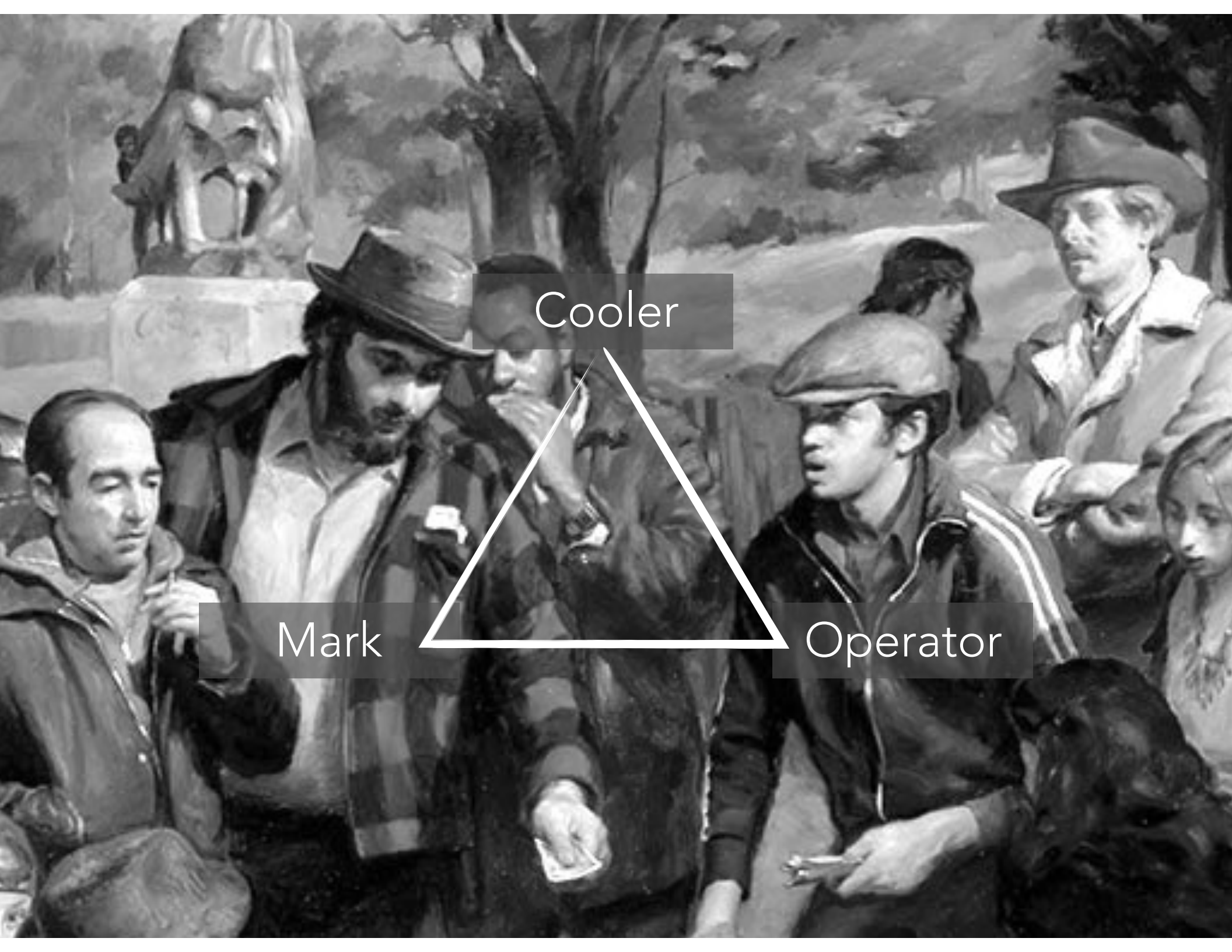
Crowd  
operator

Lookout

Muscle

ALSO SEE:

MAURER, D. (1940). THE BIG CON: THE STORY OF THE CONFIDENCE MAN. NEW YORK, NY: BOBBS-MERRILL.



Cooler

Mark

Operator

Cooler  
Cooler Institution

Learner Institution

Learner





From **the perspective of the learner**, how does this relationship emerge and how does it unfold?

Cooler

Institution



**Learner**

WHAT DOES COPE LOOK  
LIKE WHEN IT HAPPENS?

WHAT DOES COPE LOOK  
LIKE WHEN IT HAPPENS  
IN A REMEDIAL  
MATHEMATICS COURSE?

HOW IS COPE  
EXPERIENCED BY  
LEARNERS IN REMEDIAL  
MATHEMATICS COURSES?



# OPERATIONALIZING COPE AS AN ANALYTICAL TOOL

- Phenomenological lens: Evincing COPE as occurring across sequences of **identity narratives involving others' socialization roles**.
- What are **some common features** of COPE? What do those features indicate about learners' experiences?
- What **social actors/agents/forces** are involved in learners' experiences with COPE?
- Diverges from original conceptions of COPE as a systemic, coordinated, and intentional process. Here, COPE can be more **loosely coordinated, with actors possibly co-operating in unintended ways**.

# MATHEMATICS SOCIALIZATION FACTORS

## adapted framework

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### Sociohistorical

- Stereotypes, storylines/textlines, Discourses, masternarratives
  - Stock histories of accomplishment and disciplinary status
- 

### Home/Community

- Expectations regarding education and goals for education
  - Resources and strategies for supporting children's education
  - Perceptions about mathematics and support for mathematics learning
  - Perceptions about instrumental importance of mathematics
  - Relationships with educational institutions
- 

### Institutional

- Institutional policies, practices, and programs
  - Institution goals, mission, and expectations
  - Institutional messages, norms, culture, and histories regarding student success and motivation to achieve
  - Institutional stance toward students' home communities
  - Classroom negotiation of mathematical and social norms
- 

### Individual

- Personal, intersectional identities and goals
  - Perceptions of academic climate, peers, and academic personnel
  - Identities about mathematics abilities and motivation to learn
  - Identities about instrumental importance of mathematical knowledge
  - Identities about adverse interactions with and differential treatment from peers
-

# RESEARCH OVERVIEW

- Phenomenological study of COPE
- Drawn from a series of qualitative studies in which I and other researchers have observed courses (in person and video) and have conducted “four-wave,” semistructured in-depth interviews approximately 20 students (More than 40 total participants) across studies and institutional contexts
- 4-year research-intensive universities in the Midwestern United States (more than 20K students enrolled)
- Central, general questions: What are students’ mathematics-learning experiences like in these courses? On whom and on what resources do students draw as they negotiate these courses—and themselves as mathematics learners?







The background of the slide is a stylized illustration of a classroom. It features several students of diverse ethnicities and ages, some sitting at desks and others standing. The style is reminiscent of a graphic novel or a digital illustration. A large, dark, semi-transparent rectangular box is centered over the illustration, containing the title and a list of bullet points. The title 'Focal Participants' is written in a light blue, sans-serif font. The bullet points are in white, sans-serif font. The overall color palette is muted, with greys, blues, and reds being prominent.

## Focal Participants

- 7 focal participants
- 18-20 years old
- Black and Latinx
- first-year, first-time college students
- completed high school algebra courses+

# STUDY FINDINGS



Ruby



Nicole



Vanessa



AN "ARC" OF COPE  
THE CASE OF NICOLE



# COOLING OUT THE MATH LEARNERS

- Placement testing sets “the rope” for many who later negotiate COPE; *identity satisfying* is sometimes at play
- Main co-operators in Nicole’s experience with COPE: the math instructor, advisor, and Nicole’s family members (in other cases, institutional programs, peer support networks can play roles in COPE)
- In two cases of students who were doing poorly in their NCBR course (Nicole, Ruby), the instructor was explicitly mentioned as a *cooler* in their COPE narratives.



# COOLING OUT NICOLE

## "THE ROPE"

Did I take the placement test seriously? No. My whole thing about coming to [this university]; I knew that I was not strong in math. Honestly, I went—the mindset that I had when I took the placement test was—I wanted to get a low score on it, so that I could start with the basic math here. So, then, I could build my foundation up here at [this university]. So, if I got [the NCBR math course], then [the first college-level math course] would build off of that, and so on and so forth. So, that's kinda what I wanted to do. I wanted to start off, you know, as low as possible and work my way up. No matter how long it took, I know that I would've been straight as a student when it came to math at [the university]. Um; I don't even remember what score I got on the placement exam. I know it was low, because I'm (laughs) in [this NCBR math course]. Did I take it seriously? Like I said, no. But that's just really the mindset that I went into when I took it.

# COOLING OUT NICOLE

## "THE TOUCH"

Whereas when I spoke with my professor, she told me to drop the course. So, at that time, that's another reason why I'm kinda like—I'm in this teeter-totter—because I really don't know which way to go, because it was like one person was telling me one thing and another person was telling me another. My professor is telling me based on experience. She's telling me that she's seen people fail [this NCBR math course] four times in a row, because they refused to go and take a lower math course. Whereas my advisor is telling me keep the math course, because if you drop it...if you drop it, um, you're not going to have [a] math [course]. You're not going to be studying math for two months.

## COOLING OUT NICOLE: "TOUCH TO BLOW-OFF"

At the end of the day, it's really my decision— what me and my family decide to do. So, I spoke with my parents, and they wanted me to, you know, go ahead and keep the course, um. I told them that, like, it was a high possibility that I'm going to fail it and I'll have to take it over. Um, and they were fine with that. You know, that's the type of relationship that we have, open with one another. And that's what I told them. Yes, the zero point is going to most definitely hurt my GPA, but I know that I'll be much better prepared for it the next time around. Would I like two- point it and still move on? Of course! But, I mean, reality is reality. So, that's what I'm dealing with, as of now.

## COOLING OUT NICOLE:

### "THE BLOW-OFF"

Oh, well, as long as it takes for me to get the required math courses that I need here. *If it takes me all of four years—if it takes me that extra year, then that's I have to do.* To me—at the end of the day—I just want to get my degree from [this university]. Um; what comes along with that, I know that it's not going to be easy. College is nothing like high school. This is a whole new life for everyone, so. That's what I've prepared myself for. So that was the mindset that I took to it; whatever it takes, I know, *that's what I gotta do.*



# COOLING OUT NICOLE: "THE BLOW-OFF"

So, I guess that I cheated myself, and I felt like the teachers cheated me, too. So, now I'm paying the price for it.

# DISCUSSION

“The critical question is not who gains access to higher education, but rather what happens to people once they get there.”

KARABEL, J. (1972). *COMMUNITY COLLEGES AND SOCIAL STRATIFICATION*. *HARVARD EDUCATIONAL REVIEW*, 42(4), 521-562.

“What needs investigation, I thought, is not who succeeds or how success or failure is achieved but the systems of reasoning embodied in the ways we talk about success and failure.”

POPKEWITZ, T. S. (1998). *STRUGGLING FOR THE SOUL: THE POLITICS OF SCHOOLING AND THE CONSTRUCTION OF THE TEACHER*. NEW YORK, NY: TEACHERS COLLEGE PRESS.

# DISCUSSION

## *FROM THE PAPER*

“Stepping back, it seems almost obvious now that the cooling-out phenomenon and mathematics education are really like old friends—surely a now-classic pairing: Mathematics as a curricular discipline (much more than any other) has been utilized consistently and notoriously to cool learners’ academic aspirations....”



# DISCUSSION

## MAIN THEMES

- COPE can manifest as loosely ordered stages **representing a kind of “arc”** that corresponds to Goffman’s original framing
- COPE as a **loosely coordinated, non-system-driven** phenomenon, but can be nonetheless formidable—or may also be considered, in some cases, “**a curious act of agency**” when the coolers are trusted
- *Cooling by association* and the reliance on *courtesy identities*

**Lookout**

**Shill/Cooler**

**Lookout**

**Mark**

**Operator/Roper**

**Muscle**

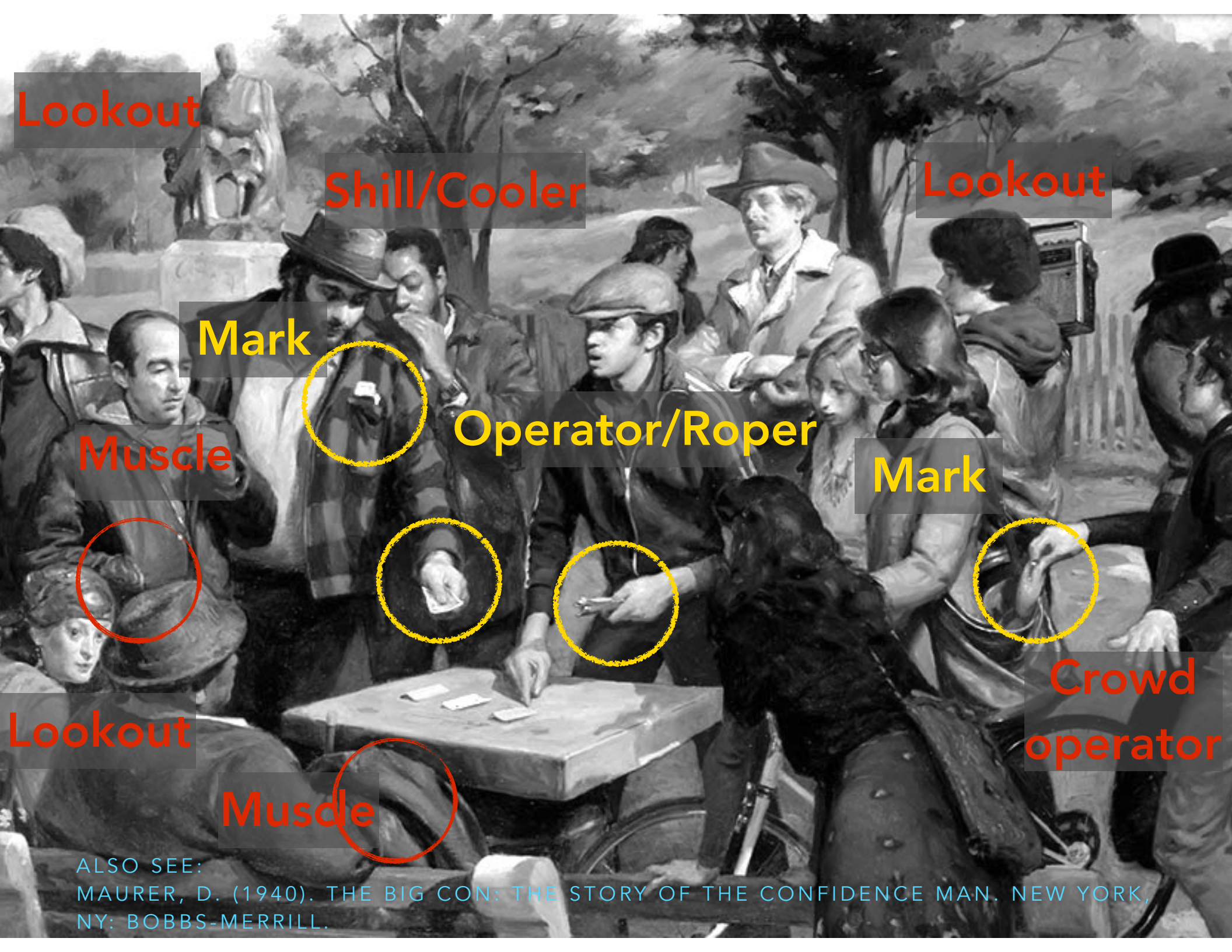
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# DISCUSSION

## REVISITING COPE

### CURRICULAR TRAJECTORY



High school  
graduation

The "rope"  
University  
Mathematics  
Placement  
Exam

The "touch"  
Direct Experiences  
with cooling out  
agents—across  
contexts

The "blow-off"  
Stated  
Acceptance of the  
"curricular loss"



# DISCUSSION

- The salience of **learners' social networks**, within and beyond schooling institutions: social peers, institutional peers, and home-background socialization factors
- COPE is still primarily perpetuated by instructors and counselors (i.e., "system-driven" cooling out) but may also involve **others with tangential connection to classroom-level experiences** or even outside of the institution.
- The role of mathematics placement examinations as an initial stage of COPE; **satisficing** behaviors may be a signal of initiating COPE

# SOME PARTING QUESTIONS

- What does COPE look like in other mathematics education contexts? At other **math-curricular transitions** (e.g., middle-school algebra)?
- What other concepts and phenomena occur amid the broader micro-processes of **mathematics gatekeeping**?
- If “COPE happens,” what does it mean to **counteract COPE**? How do we engage the notion of **identity repair** in mathematics education?



# THANK YOU

Larnell, G. V. (2016, October). We real cool: Reconsidering the “cooling out” phenomenon among Black learners in remedial mathematics courses. Presentation at the Michigan State University Mathematics Education Colloquium. East Lansing, Michigan USA.

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# RELATED ARTICLES

Larnell, G.V. (under review). *We real cool*: Reconsidering the “cooling out” phenomenon in a mathematics education context.

Larnell, G. V. (2016). More than just skill: Examining mathematics identities, racialized narratives, and remediation among Black undergraduates. *Journal for Research in Mathematics Education*, 47(3), 233-269.

Larnell, G.V., Boston, D., & Bragelman, J. (2014). The stuff of stereotypes: Toward unpacking identity threats amid African American students’ learning experiences. *Journal of Education*, 194(1), 49-57.