Counterfeiting Gender Diversity in Technology Organizations :

Cueing Identity Safety or Identity Threat?

≠

On-the-Ground

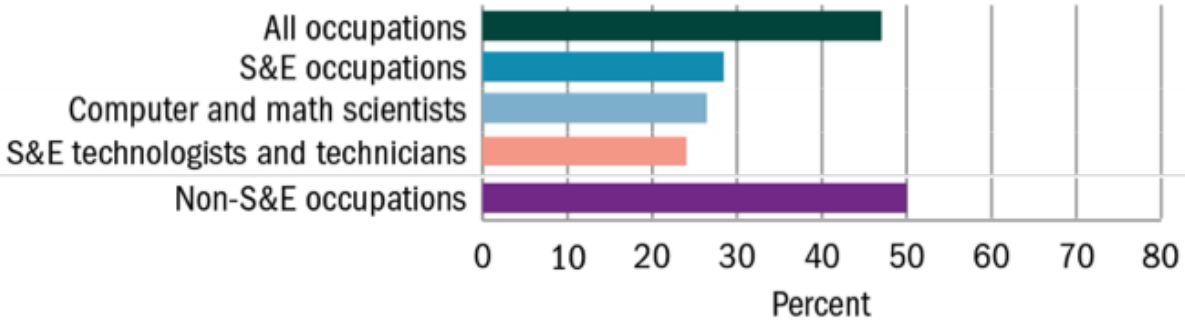
Katie Kroeper, Heidi Williams, & Mary Murphy

OSU Weary Symposium on Diversity and Social Identity

June 17, 2019

Technology lacks Gender Diversity

Employed women scientists and engineers, as a percentage of selected occupations: 2015



Women, Minorities, and Persons with Disabilities in Science and Engineering: 2017

- Women are **underrepresented in STEM** fields
- And it's particularly a **problem in tech/computer science**

National Science Board, 2016, 2018; NSF, 2017, 2019

How Can We Increase Gender Diversity?

With a global community of over 2 billion people on Facebook, the case for a more diverse and inclusive company is clear. Diversity helps us build better products, make better decisions and better serve our community.

Google

"Building an open, inclusive environment is core to who we are, and the right thing to do," added Ari Balogh, the company's vice-president of engineering, "'Nuff said."

Open.

Humanity is plural, not singular. The best way the world works is everybody in. Nobody out.

Microsoft

Diversity + Inclusion = Success

In over 20 years of committed diversity and inclusion efforts, we've learned that diversity is not a finite goal; it is a journey that requires constant self-assessment and recommitment.

Bush, Henle, Cohen, Jenkins, & Kossy, 2002; Cohoon, 2002; Cuny & Aspray, 2002; Emslie & Hunt, 2009; Gaucher, Friesen, & Kay, 2011

How Can We Increase Gender Diversity?

…***portraying diversity*** is a potent method of ***attracting diversity***…

Avery, 2003; Erba, Phillips, & Geana, 2012; Murphy, Steele, & Gross, 2007; Perkins, Thomas, & Taylor, 2000; Rau & Hyland, 2003; Walker, Feild, Bernerth, & Becton, 2012; Walker, Feild, Giles, Armenakis, & Bernerth, 2009

Doesn't this pose a dilemma for *non-diverse* places?

Advertised

On-the-Ground

TECH

This Picture Featuring 15 Tech Men And 2 Women Looked Doctored. The Women Were Photoshopped In.

"We meant no harm or had any malicious intent in doing this and we are sorry."

Ryan Mac
BuzzFeed News Reporter

Posted on June 12, 2019, at 1:53 p.m. ET

What is counterfeit diversity?

…it's projecting **an image of diversity** that is **inconsistent with reality**

≠

On-the-Ground

Is counterfeit diversity
a cue to *identity safety* or *identity threat*?

- Underrepresented group members are vigilant to cues signaling whether their group will be valued and respected

- How might counterfeit diversity be construed by female applicants?
  - …as an **identity safety cue**—that women will be welcomed and treated with respect
  - …as an **identity threat cue**—that counterfeit diversity is a disingenuous mask that is hiding plain old non-diversity

Blickenstaff, 2005; Diekman & Steinberg, 2013; Murphy et al., 2007; Steele, Spencer, & Aronson, 2002

Research Overview

- Three experiments examined links between construal, threat, and organizational interest
  - **Study 1: Counterfeit** vs. **Authentically High Diversity**
  - **Study 2: Counterfeit** vs. **Authentically Low Diversity**
  - **Study 3: Counterfeit** vs. **A Diversity Commitment**

General Method

- **Two Factor Design**
  - **Diversity**: Counterfeit Diversity (vs. other diversity portrayals)
  - **Gender**: Women, Men
- **Procedure:**
  - Ps viewed a tech company's website, advertised as **gender diverse** or **non-diverse**
  - Ps learned on actual on-the-ground diversity information: **gender diverse** or **non-diverse (or were given no diversity info at all)**
  - Ps answered questions about their beliefs about the company, anticipated threat, and attraction
- **Measures**
  - Sincerity Beliefs (2 items, $\alpha = .94$)
  - Identity Threat Concerns (5 items, $\alpha = .96$)
  - Interest in the Company (1 item)

Study 1

Advertised	On-the-Ground: Diverse	On-the-Ground: Non-Diverse	On-the-Ground: No Information
Website Diverse	Authentic Diversity	Counterfeit Diversity	No-Info Control
Website Non-Diverse			

Study 1

Diverse Website (1:1 Men to Women)

HARRISON TECHNOLOGIES

Inventing the technologies that the world loves.

WELCOME ○ PRODUCTS ○ OUR PEOPLE ○ MEDIA ○ CAREERS ○ CONTACT

OUR PEOPLE

At Harrison Technologies, we believe that embracing our people enriches our company culture.

We feel that focusing on our people creates a more productive, exciting, and innovative work environment. Such an environment helps everyone.

A focus on our people is woven throughout all of our organizational practices. As soon as you walk through our doors, you' ll appreciate the strength that we derive from our people.

Study 1

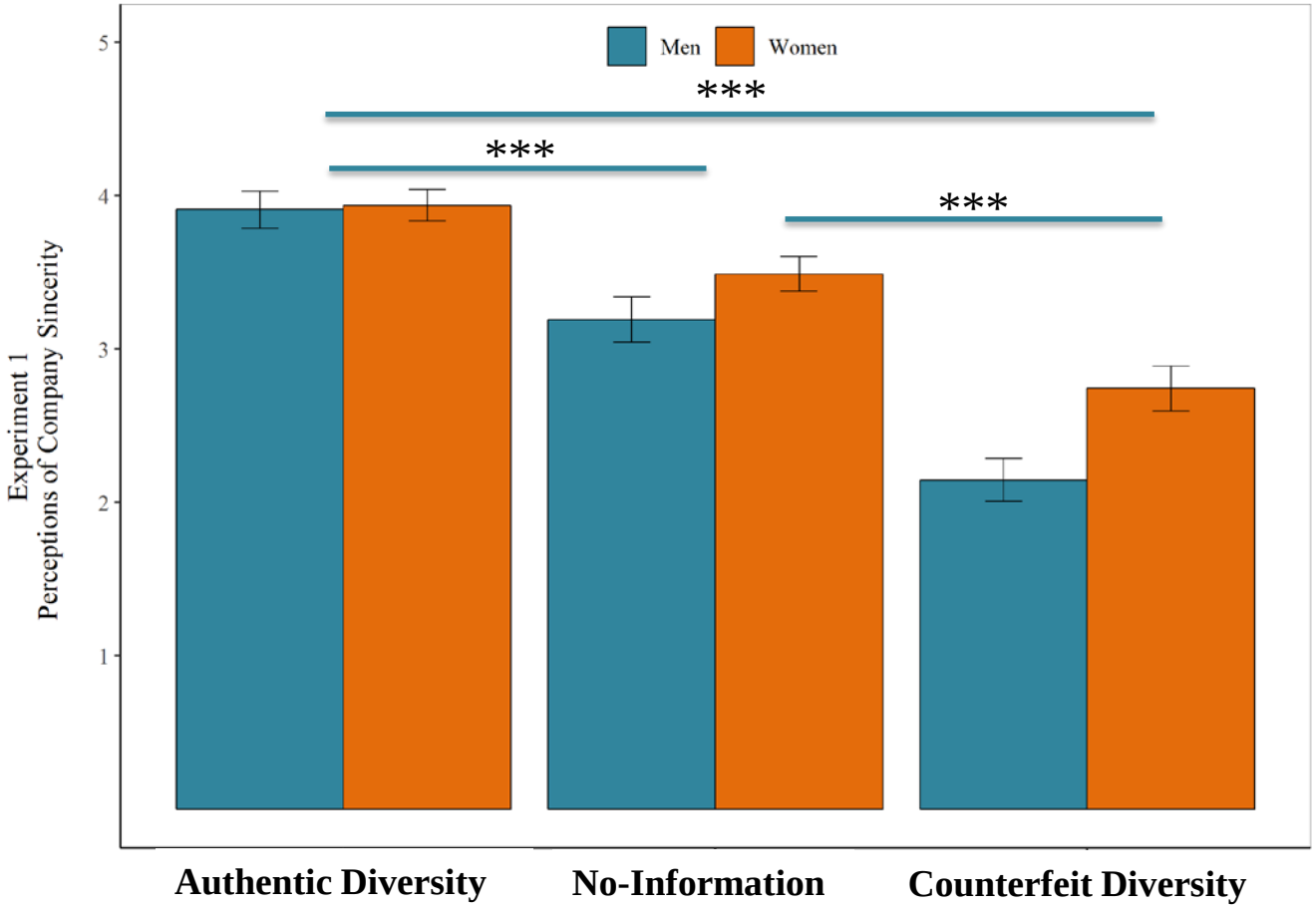
Actually Diverse

When you actually arrive on site, you look around and notice that there are many women and men working at Harrison Technologies. In fact, it looks like the gender ratio of men to women is about 1:1, meaning about 50% of all employees at the company are women.

Actually Non-Diverse

When you actually arrive on site, you look around and notice that there are mostly men and very few women working at Harrison Technologies. In fact, it looks like the gender ratio of men to women is about 3:1, meaning only about 25% of all employees at the company are women.

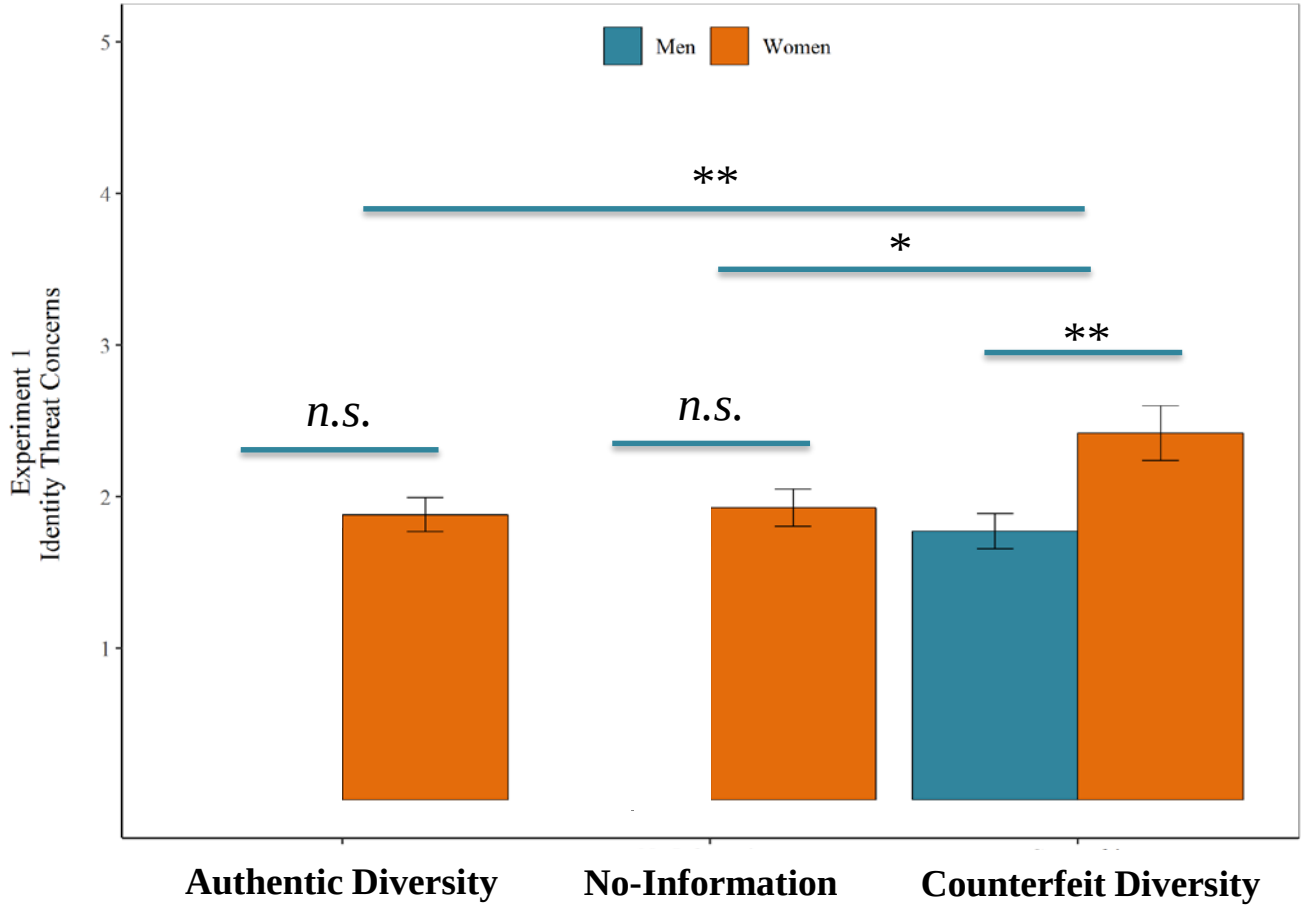
Study 1
Sincerity Beliefs



Main Effect of Diversity: $F(2, 300) = 63.94$, $p < .001$, $\eta_p^2 = .30$

* $p < .05$, ** $p < .01$, *** $p < .001$

Study 1
Identity Threat Concerns

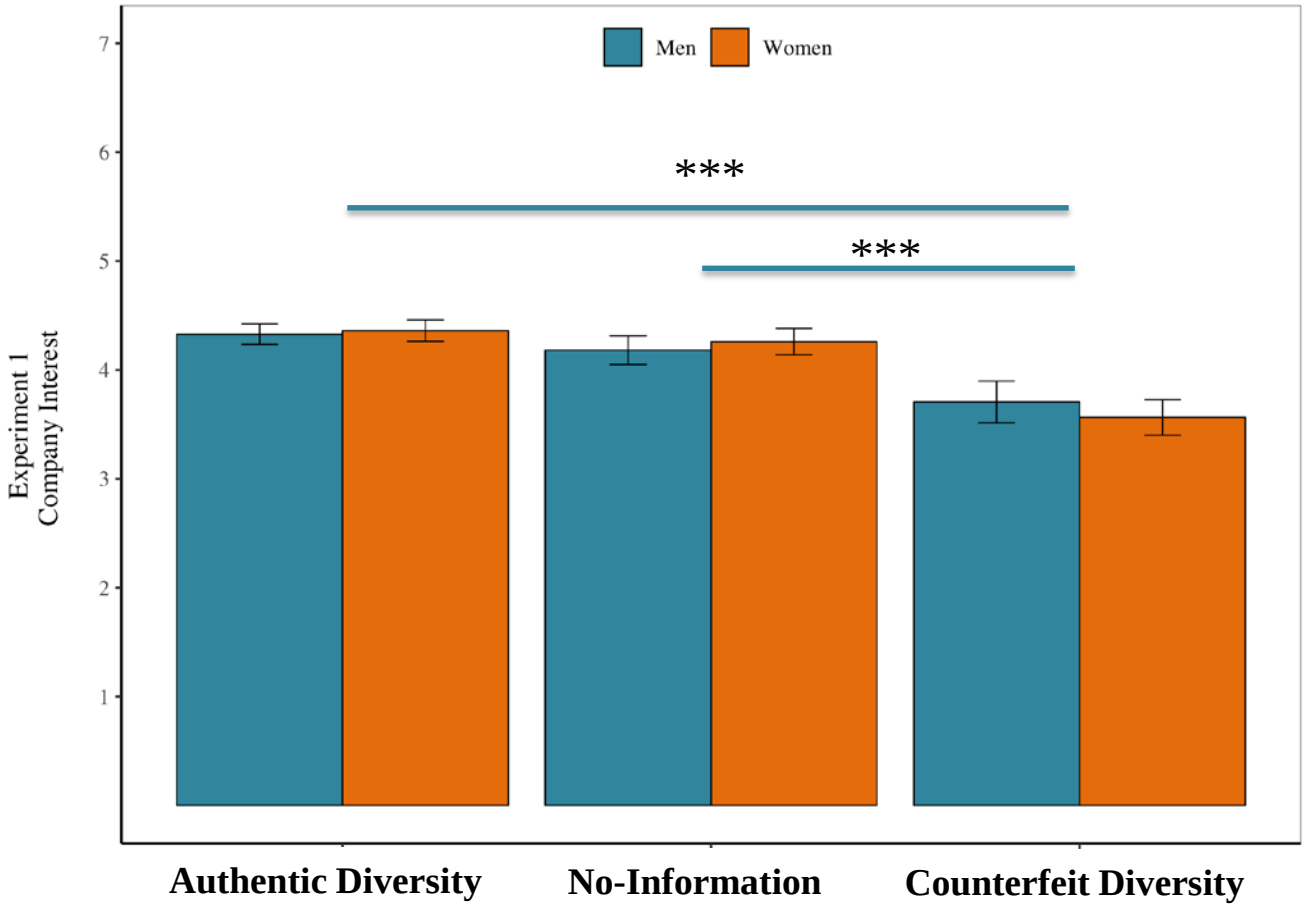


Main Effect of Diversity: $F(2, 300) = 2.66$, $p = .07$, $\eta_p^2 = .02$
Main Effect of Gender: $F(1, 300) = 9.82$, $p = .002$, $\eta_p^2 = .03$
Interaction: $F(2, 300) = 2.25$, $p = .11$, $\eta_p^2 = .02$

* $p < .05$, ** $p < .01$, *** $p < .001$

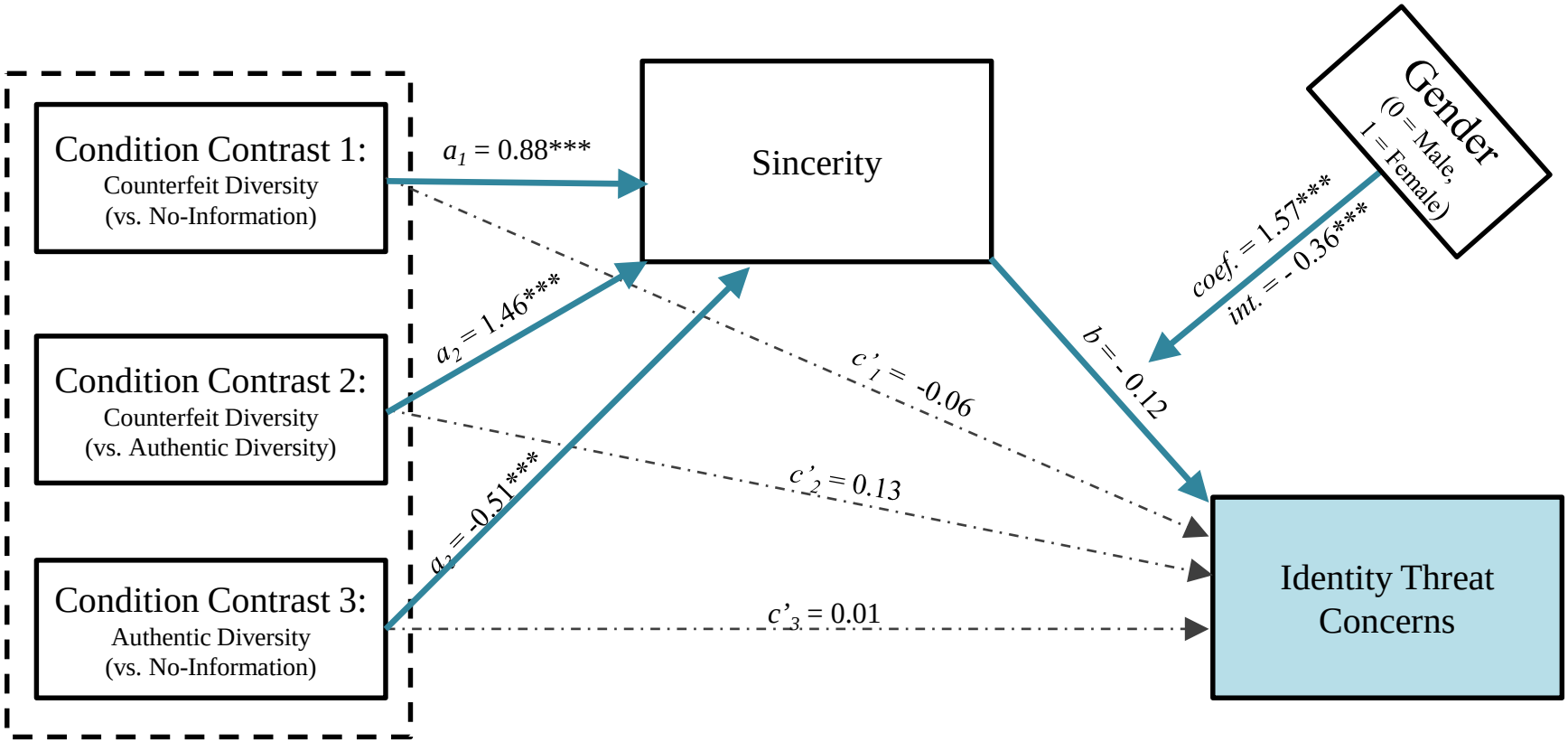
Study 1

Interest in the Company



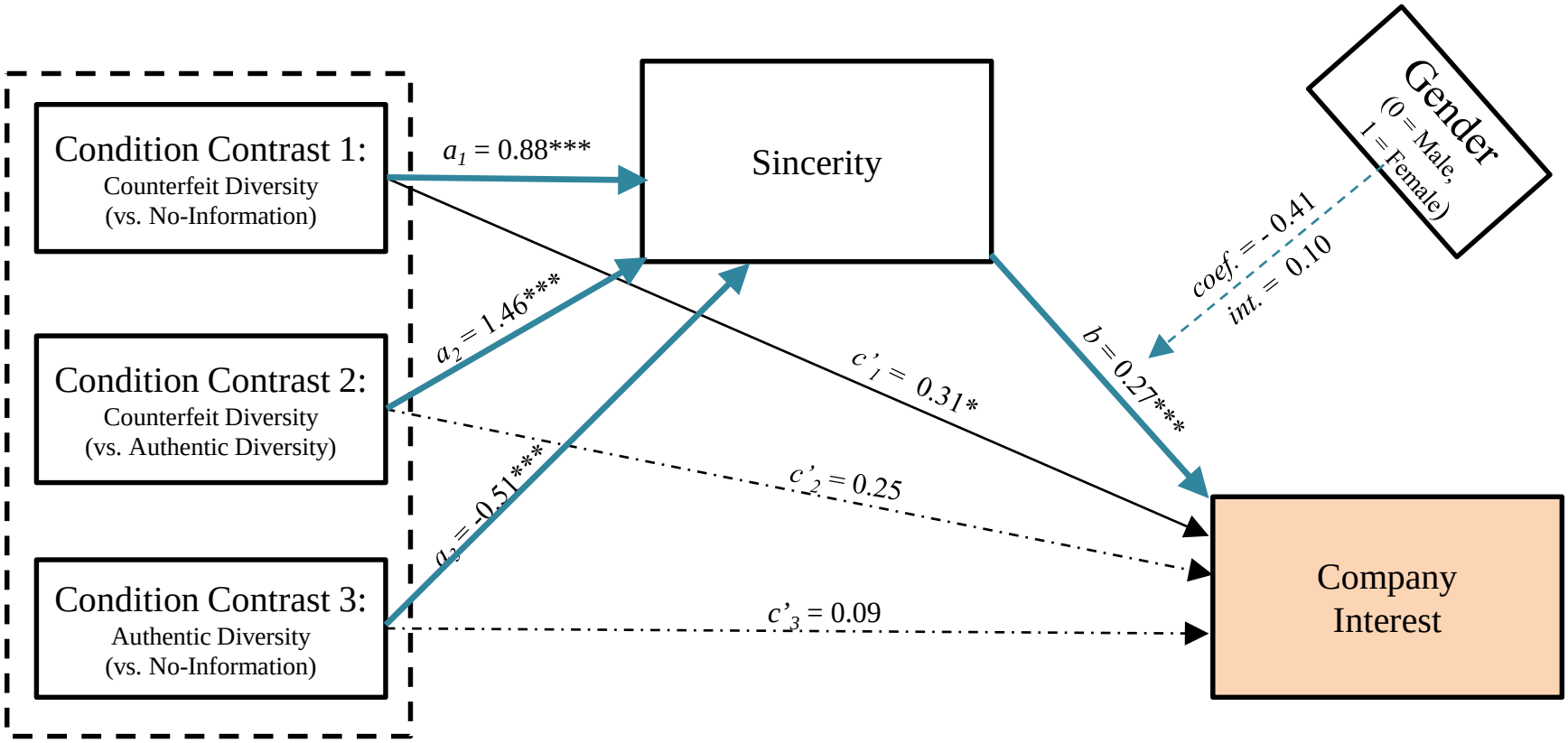
Main Effect of Diversity: $F(2, 300) = 25.49$, $p < .001$, $\eta_p^2 = .10$

Study 1
Sincerity to Identity Threat Concerns



N = 306. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 1
Sincerity to Interest in the Company



N = 306. * p < .05, ** p < .01, ***p < .001

Study 1
Summary

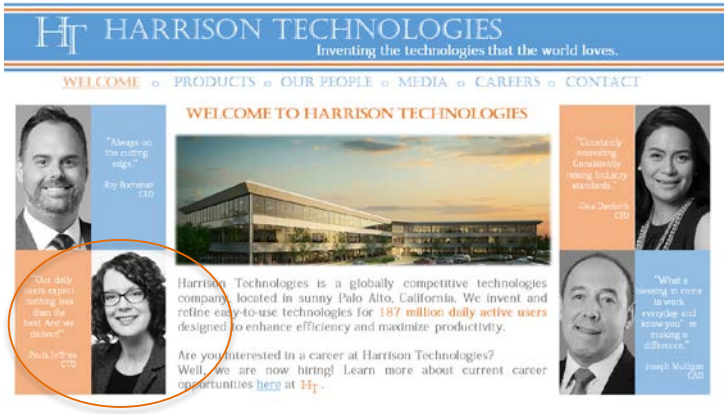
- **Counterfeit Diversity** (vs. authentic diversity)
  - …believed company was **less sincere**
  - …women anticipated **more identity threat concerns**
  - …reported **less interest** in the company
- But how is **Counterfeiting Diversity** viewed compared to being **Authentically Non-Diverse**?

Study 2

Advertised	On-the-Ground: Actually Diverse	On-the-Ground: Actually Non-Diverse	On-the-Ground: No Information
Website Diverse	Authentic Diversity	Counterfeit Diversity	
Website Non-Diverse		Authentic Non-Diversity	

Study 2

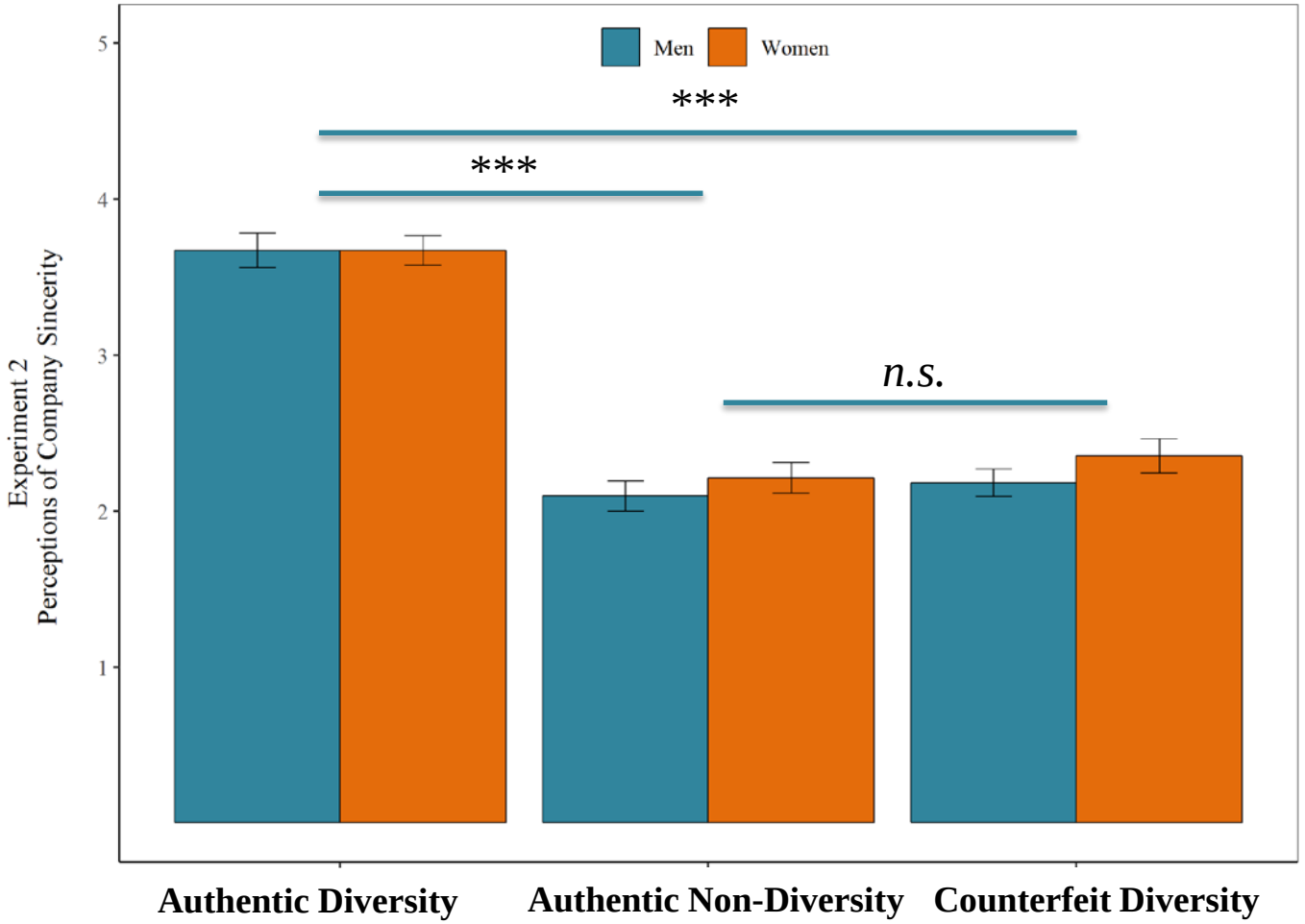
Diverse Website



Non-Diverse Website

Study 2

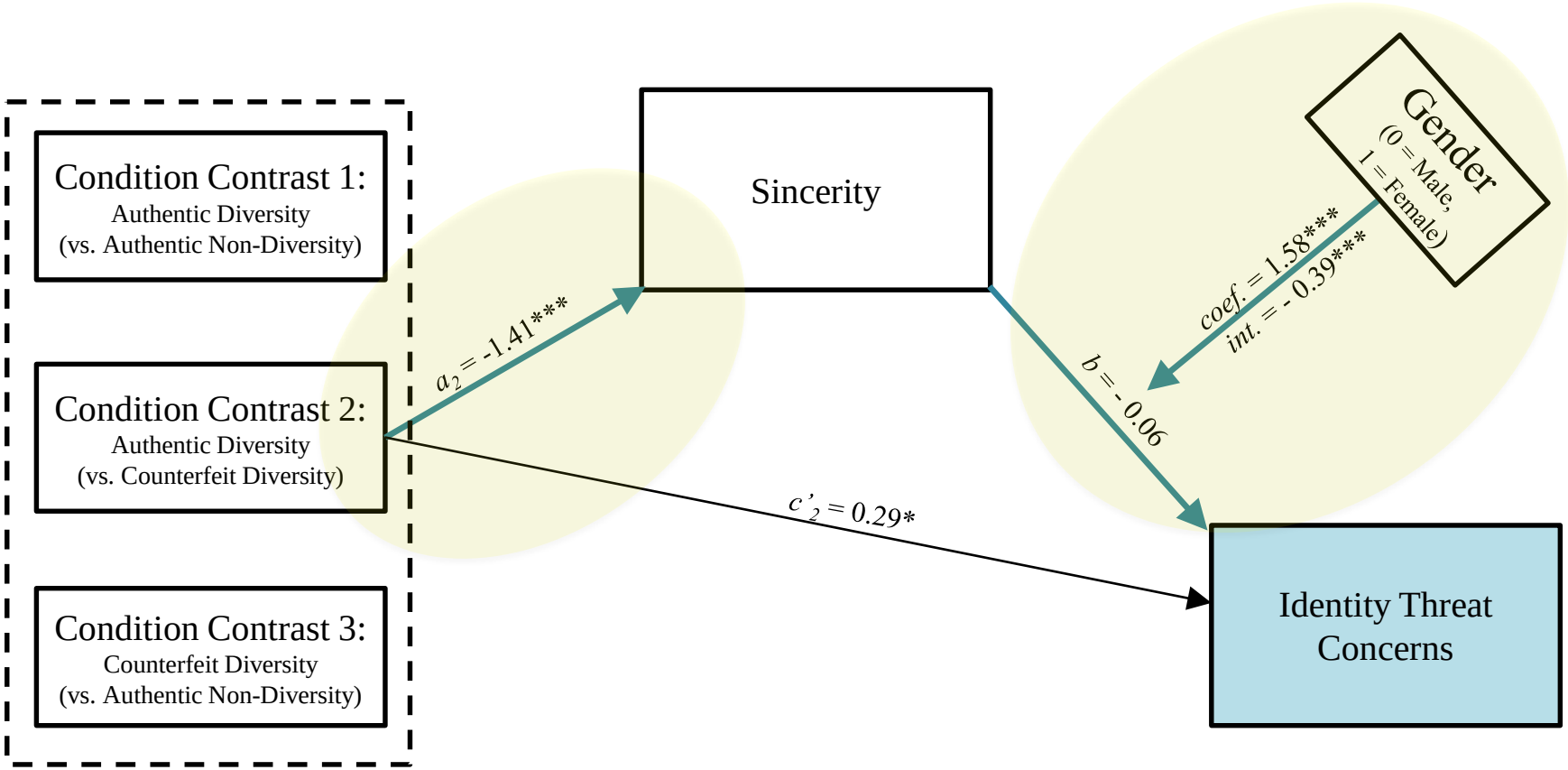
Sincerity Beliefs



* $p < .05$, ** $p < .01$, *** $p < .001$

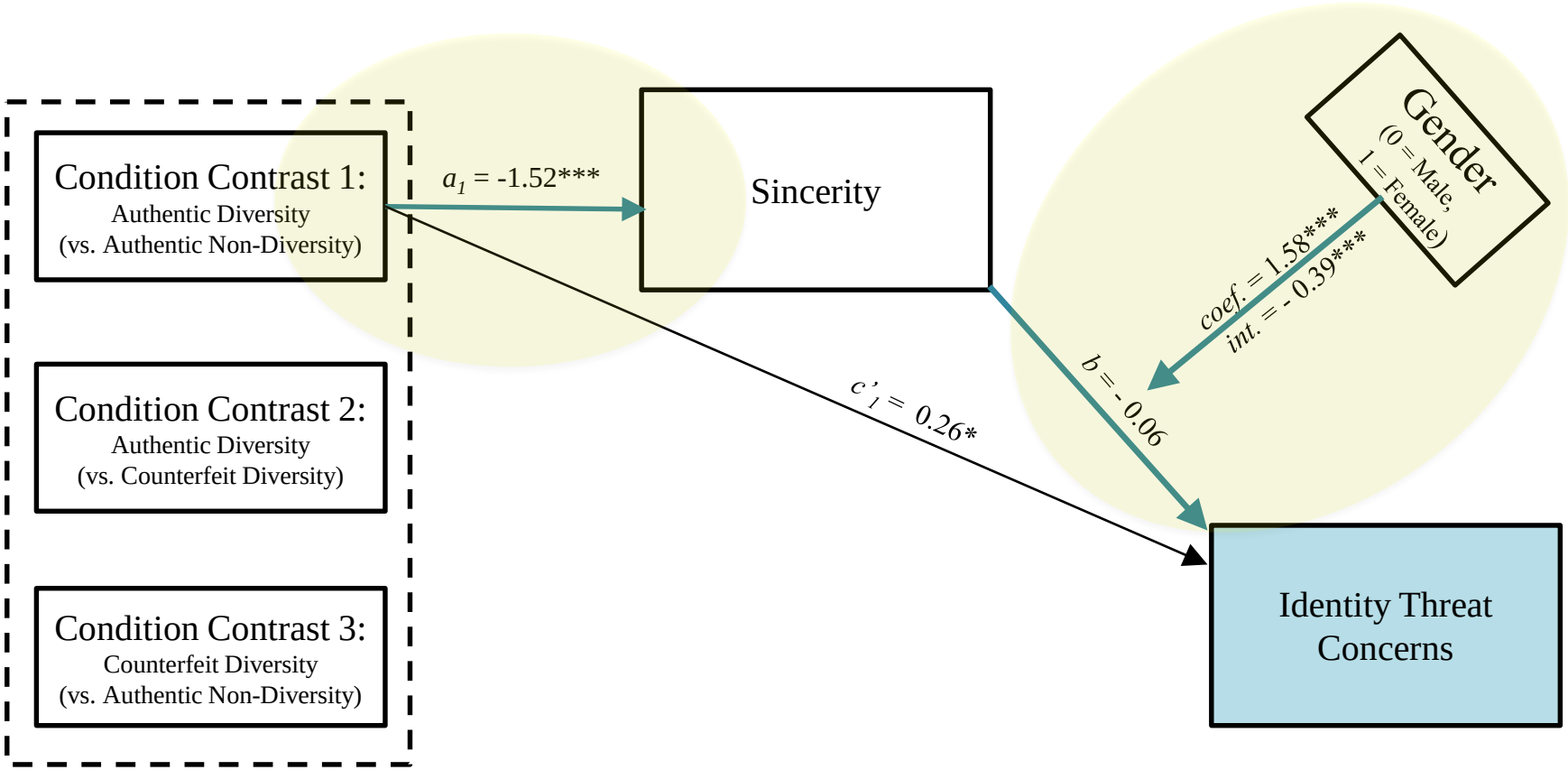
Main Effect of Diversity: $F(2, 396) = 145.09$, $p < .001$, $\eta_p^2 = .42$

Study 2
Sincerity to Identity Threat Concerns



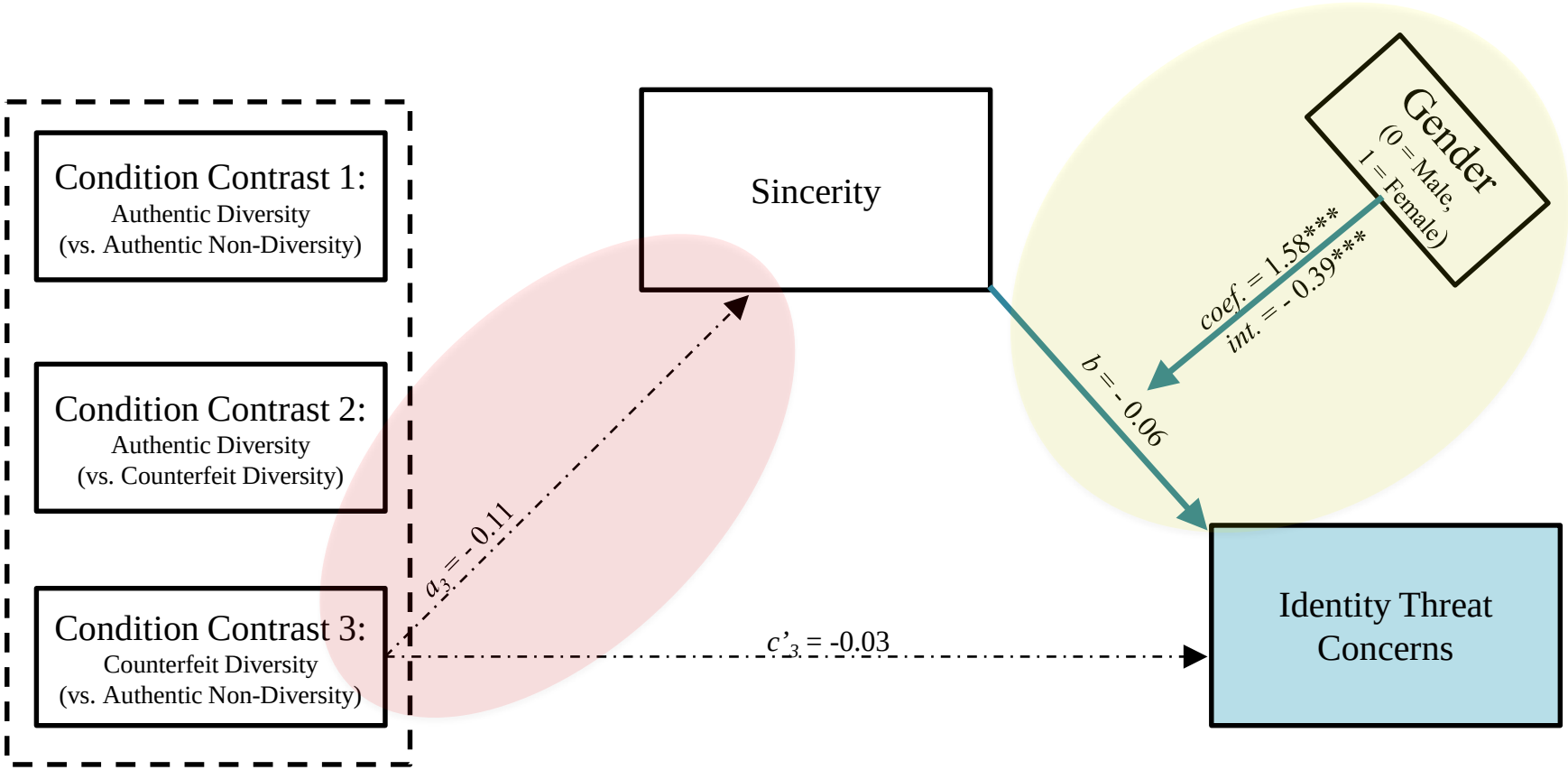
$N = 402$. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 2
Sincerity to Identity Threat Concerns



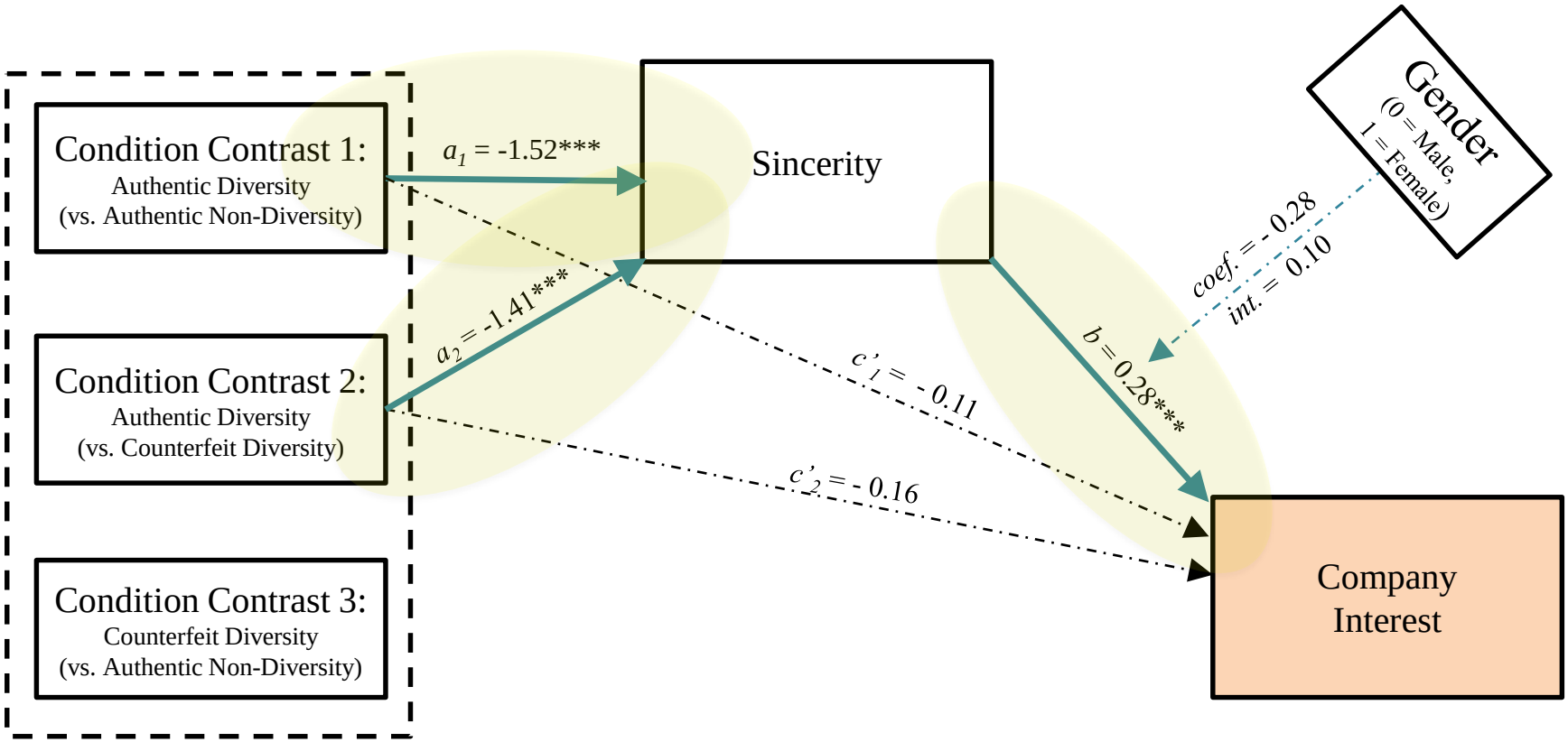
N = 402. * *p* < .05, ** *p* < .01, ***p* < .001

Study 2
Sincerity to Identity Threat Concerns



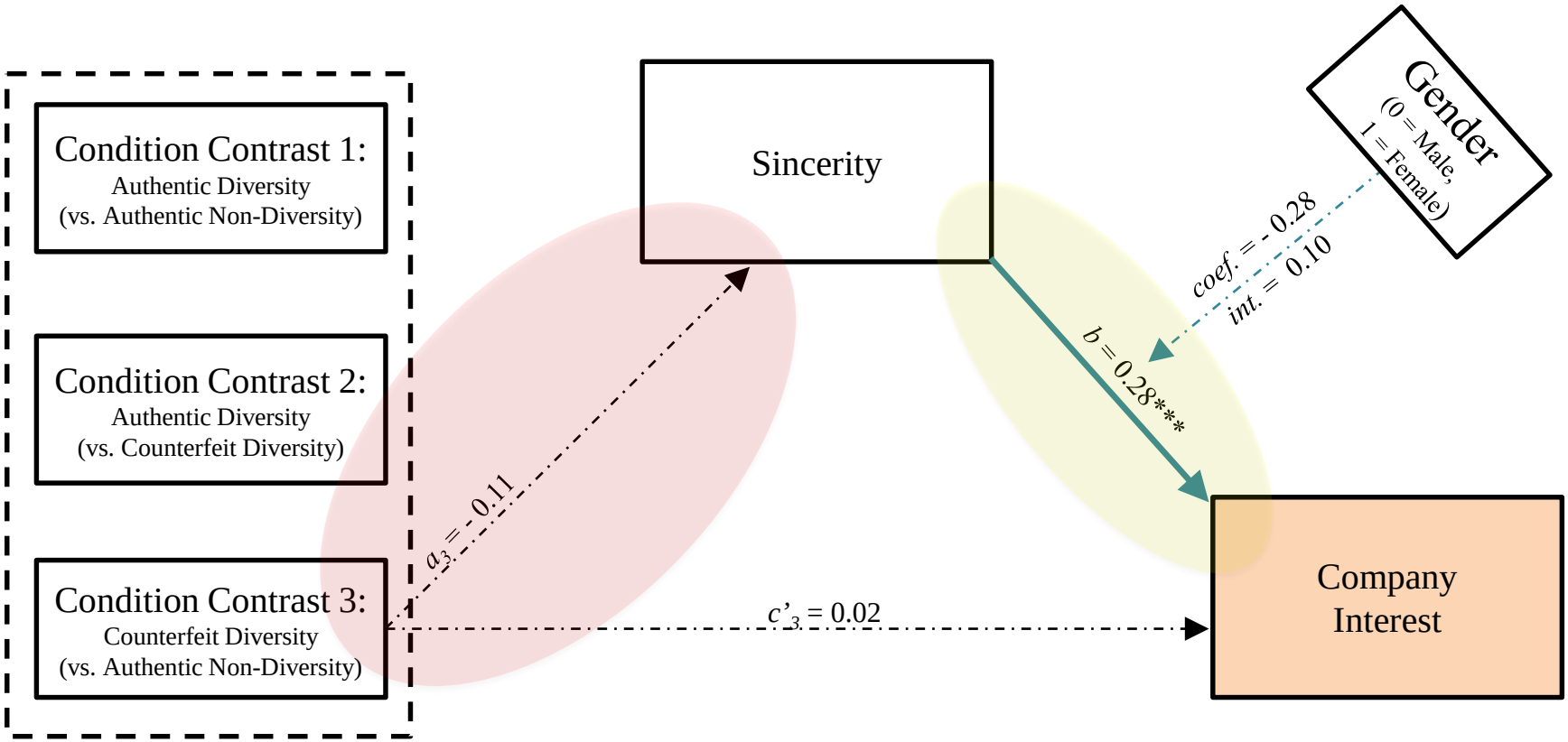
N = 402. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 2
Sincerity to Interest in the Company



N = 402. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 2
Sincerity to Interest in the Company



N = 402. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 2
Summary

- **Counterfeit Diversity (vs Authentic Diversity)**…
  - …perceived company as **less sincere**
  - …women anticipated having **more identity threat concerns**
  - …reported **less interest** in the company
- **Counterfeiting Diversity** did not provide any more identity safety than **Authentic Non-Diversity**.
  - No evidence of a meaningful difference.

Study 3

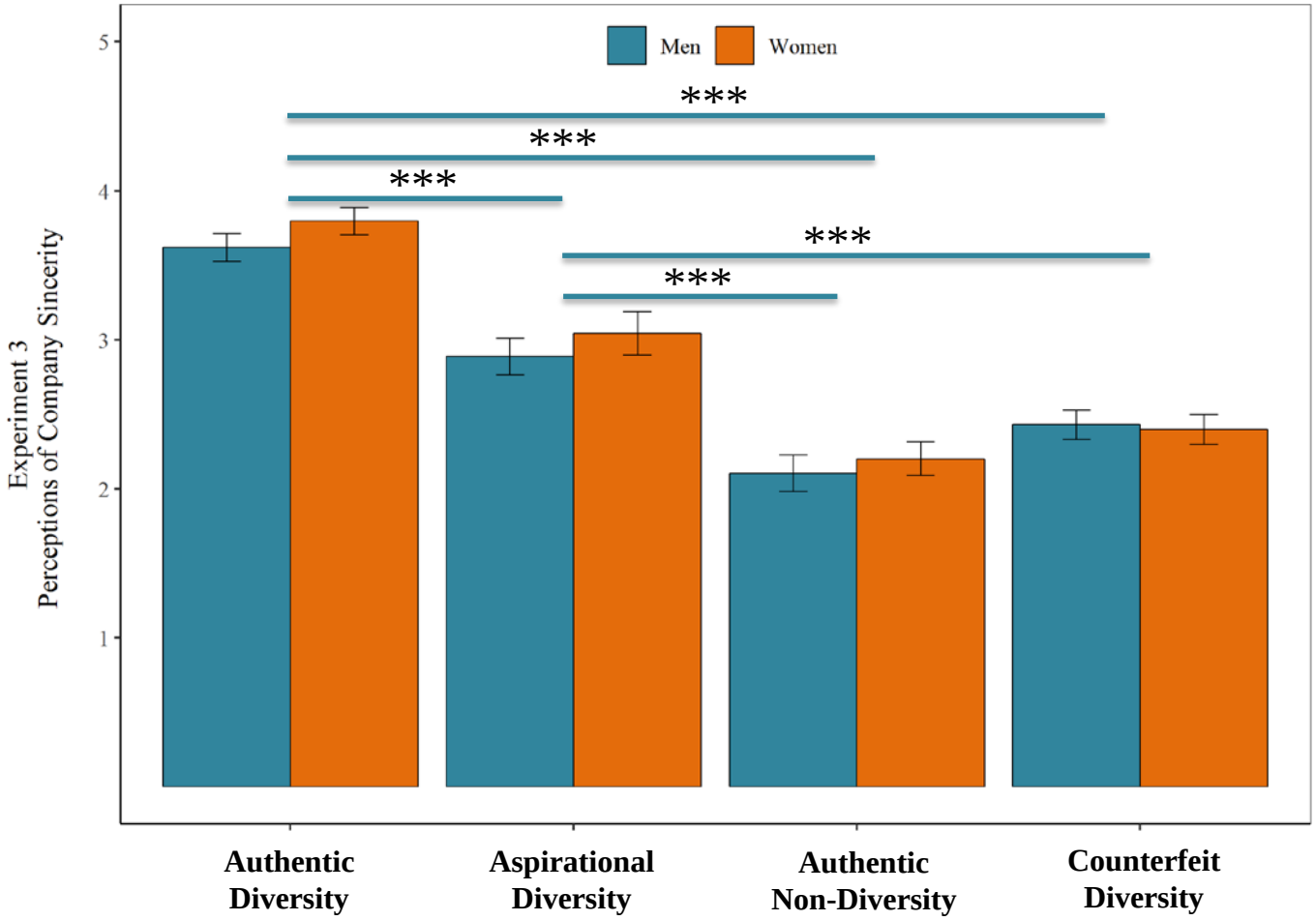
Advertised	On-the-Ground: Actually Diverse	On-the-Ground: Actually Non-Diverse	On-the-Ground: Actually Non-Diverse, but Committed to Diversity
Website Diverse	Authentic Diversity	Counterfeit Diversity	
Website Non-Diverse		Authentic Non-Diversity	Aspirational Diversity

Study 3

*"**Diversity is critical** to the success of our company—it helps us build better products, make better decisions, and better serve our community. Since establishing Harrison Technologies, **we've made some progress** toward increasing the number of women employed here. **However, our current numbers don't reflect our company's values**. We aren't yet where we'd like to be. **Now and going forward, we will work hard to recruit and retain more women**. In fact, we have several programs in place to help move us towards our goals. We are committed to making Harrison Technologies a diverse and inclusive company, where all employees feel that they can thrive and succeed."*

Study 3

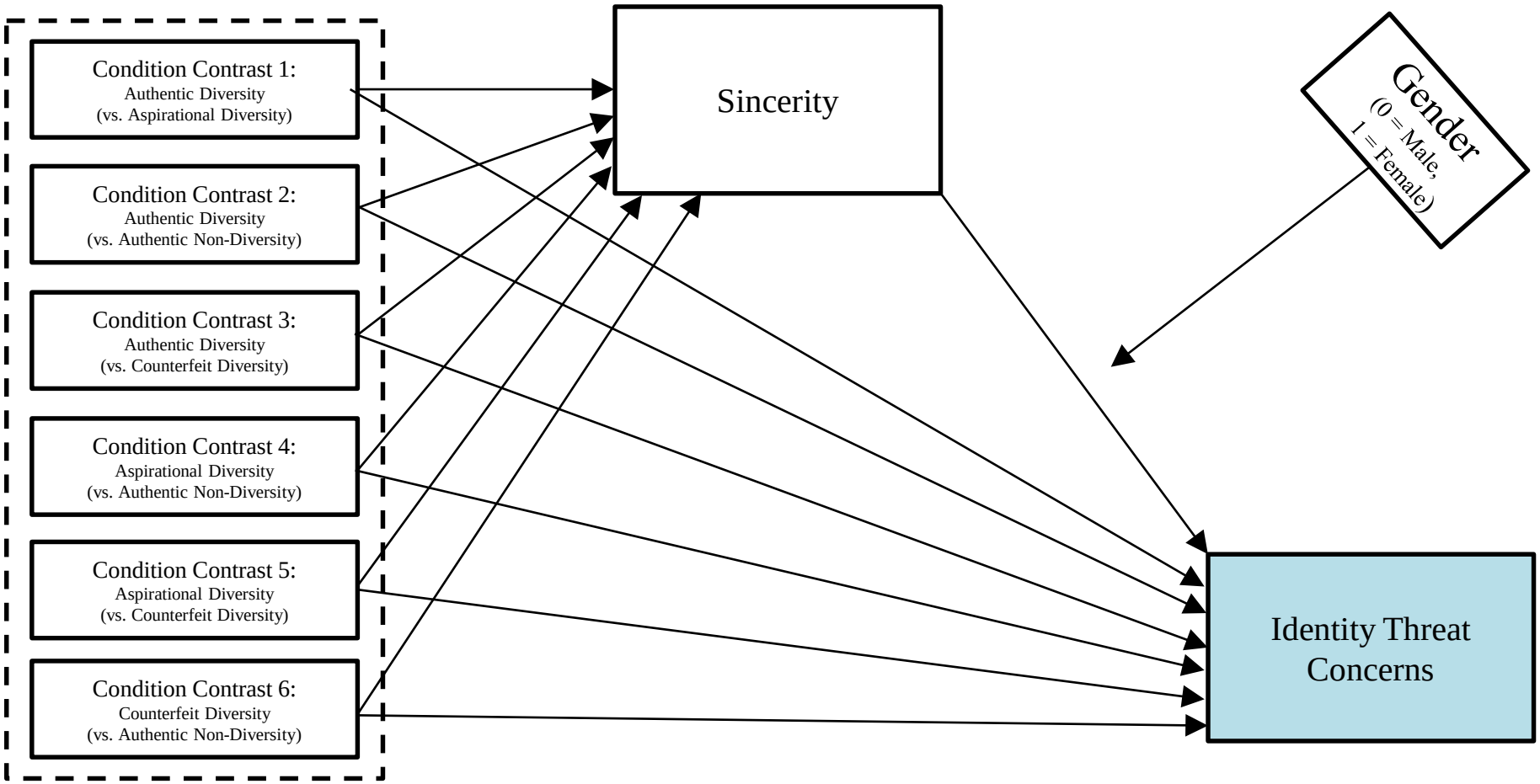
Sincerity Beliefs



* $p < .05$, ** $p < .01$, *** $p < .001$

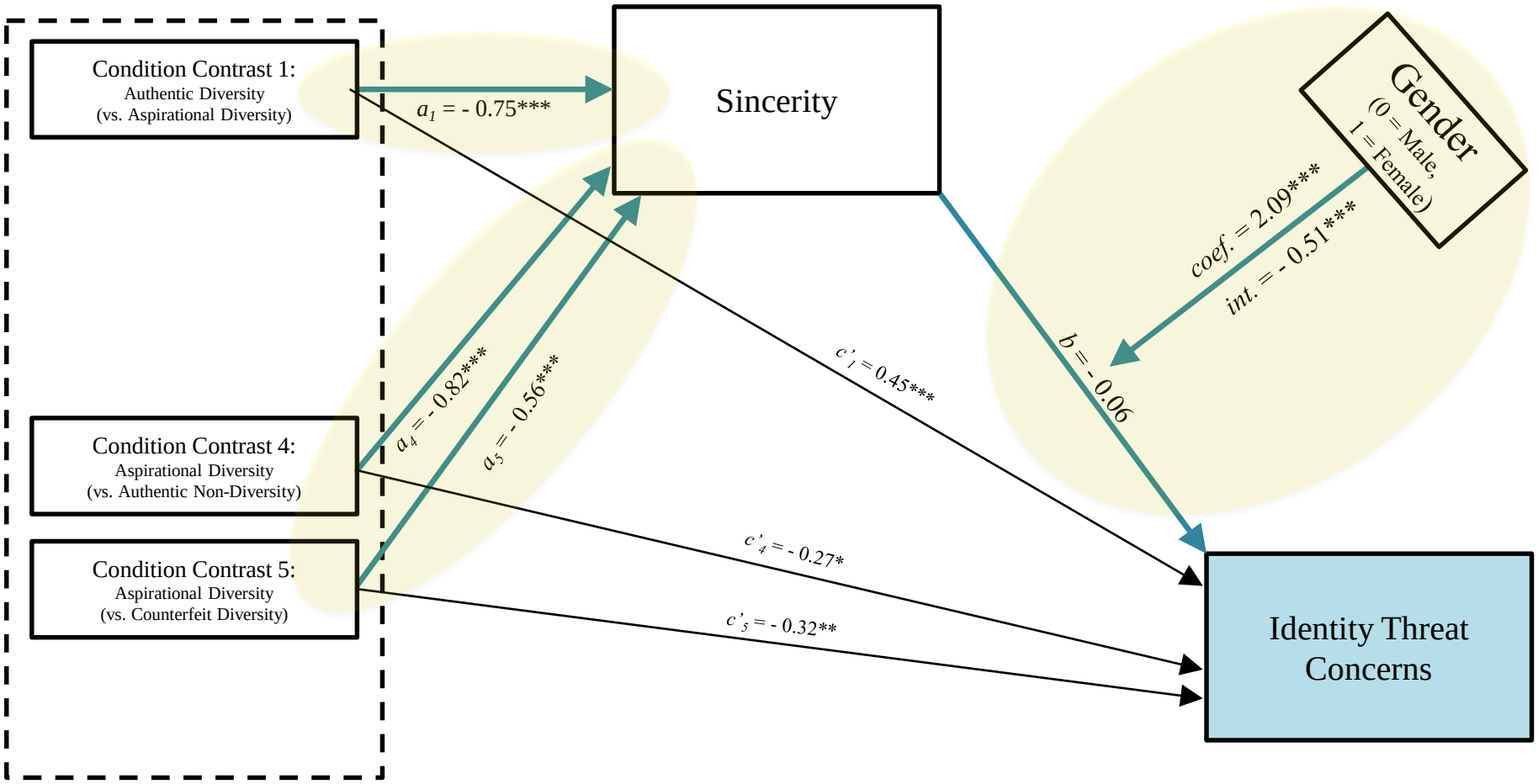
Main Effect of Diversity: $F(3, 497) = 78.97$, $p < .001$, $\eta_p^2 = .32$

Study 3
Sincerity to Identity Threat Concerns



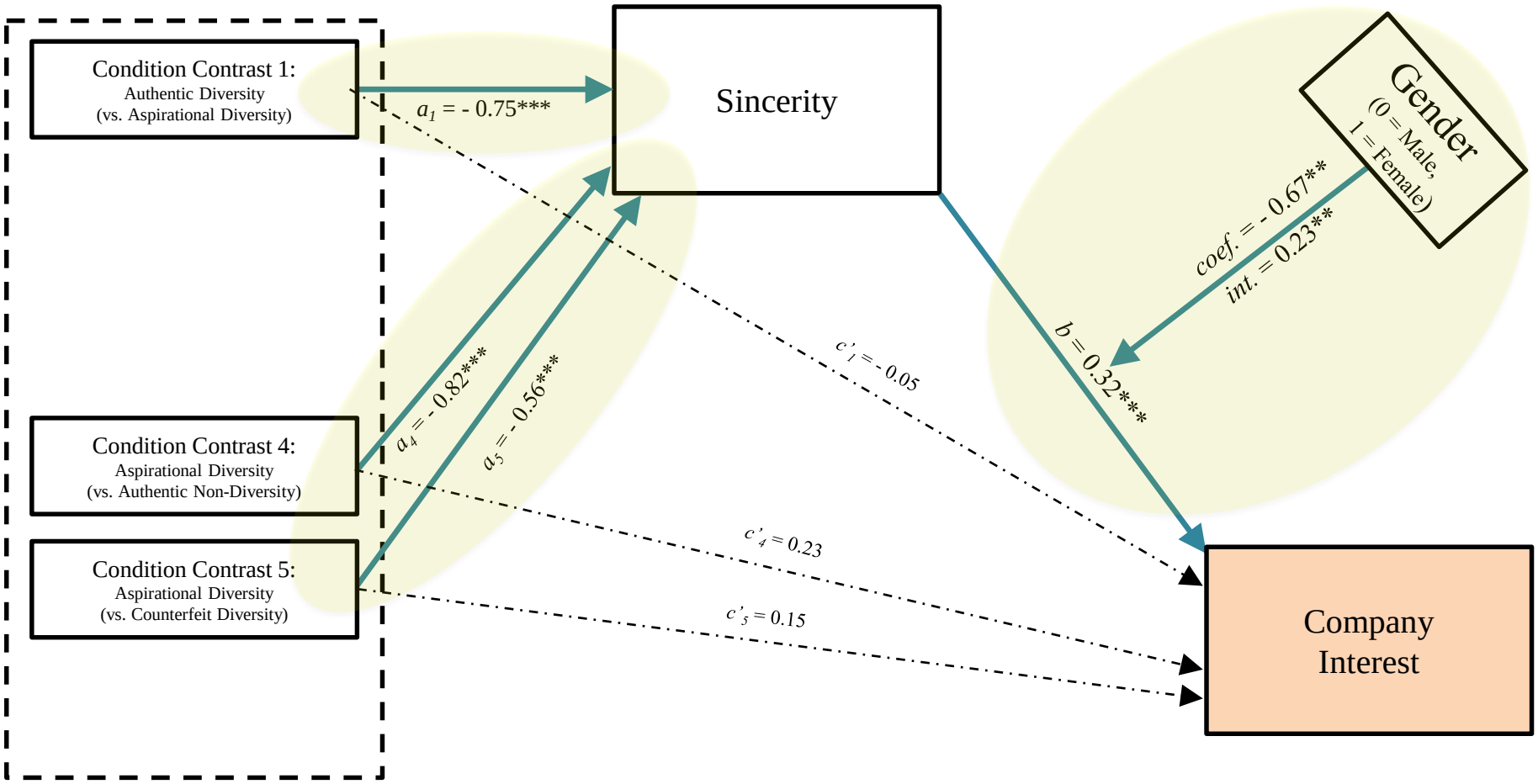
N = 505. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 3
Sincerity to Identity Threat Concerns



N = 505. * $p < .05$, ** $p < .01$, ***$p < .001$

Study 3
Sincerity to Interest in the Company



N = 505. * *p* < .05, ** *p* < .01, ***p* < .001

General Summary

- People exposed to **Counterfeit Diversity (vs Authentic Diversity)**…
  - …perceived company as **less sincere**
  - …women anticipated having **more identity threat concerns**
  - …reported **less interest** in the company

- In Study 3, we found some evidence that expressing a **diversity commitment**, via increasing **perceived sincerity**, can alleviate identity threat and increase interest.

- Stating aspirational diversity may be one alternative to counterfeiting diversity that communicates identity safety (vs. threat) and maintains people's interest.

Collaborators & Funding

And thank **you** for your

time, attention, and feedback!

Extra slides…just in case ☺

Study 1

Participants

- MTurk Sample (N = 306)
- M_{age} = 36.7 years
- 52.6% female
- 76.5% White

Study 2

Participants

- Prolific Sample (N = 402)
- M_{age} = 33.0 years
- 51.2% female
- 69.1% White

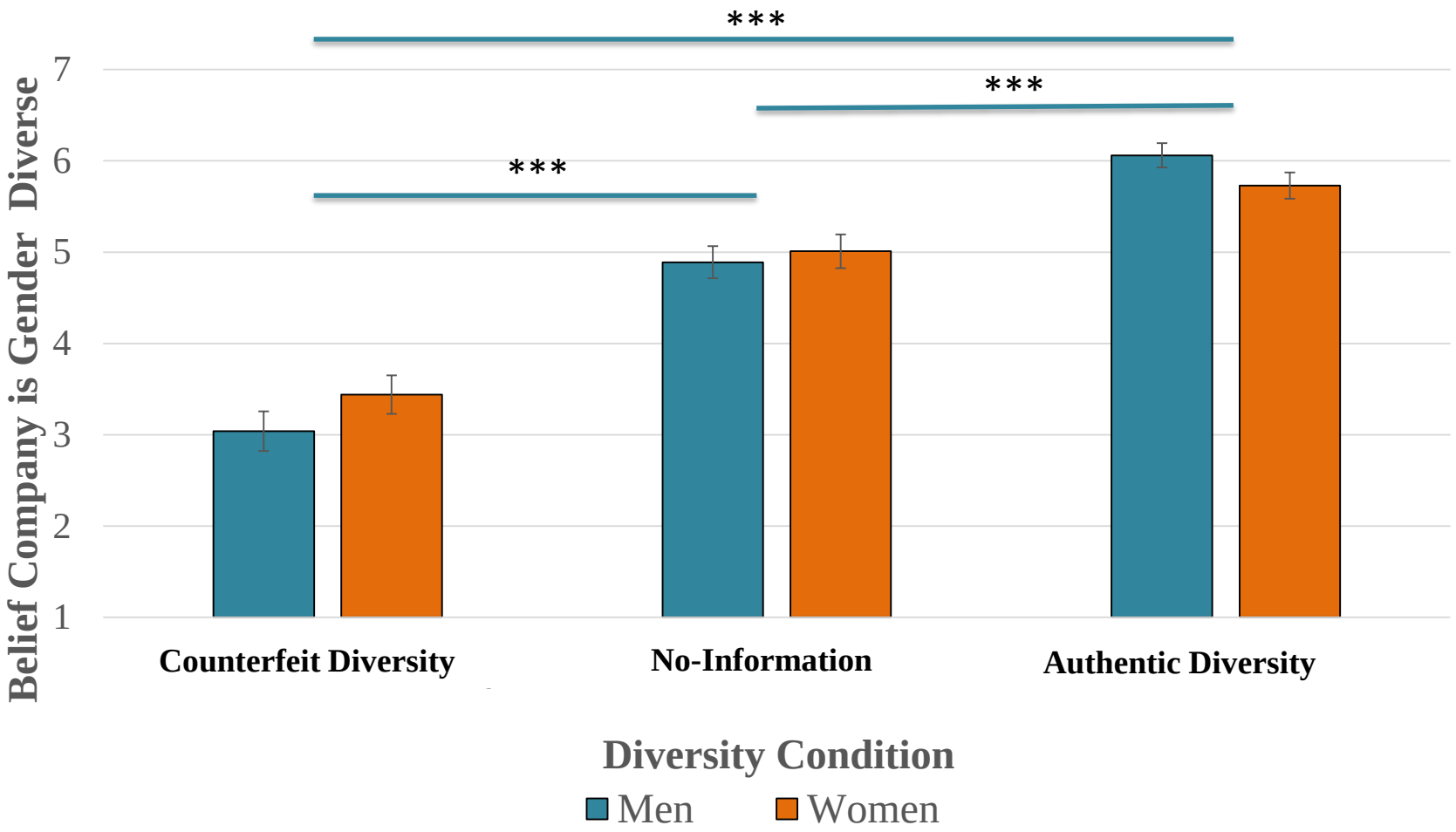
Study 3

Participants

- Prolific Sample (N = 505)
- M_{age} = 34.73 years
- 50.7% female
- 76.6% White

Study 1: Results

Manipulation Check

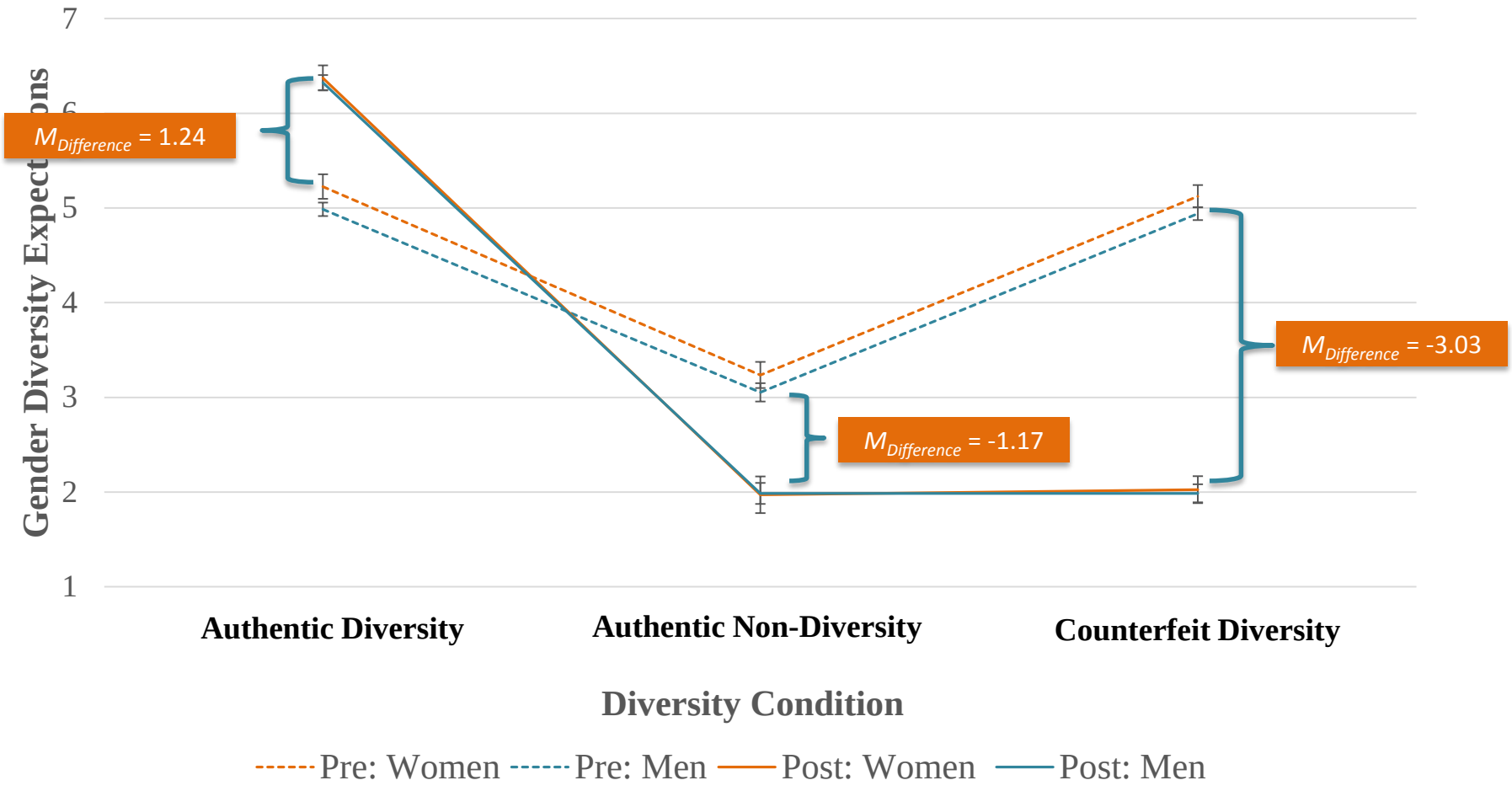


* $p < .05$, ** $p < .01$, *** $p < .001$

Main Effect of Diversity: $F(2, 300) = 113.38$, $p < .001$, $\eta_p^2 = .43$

Study 2: Results

Manipulation Check



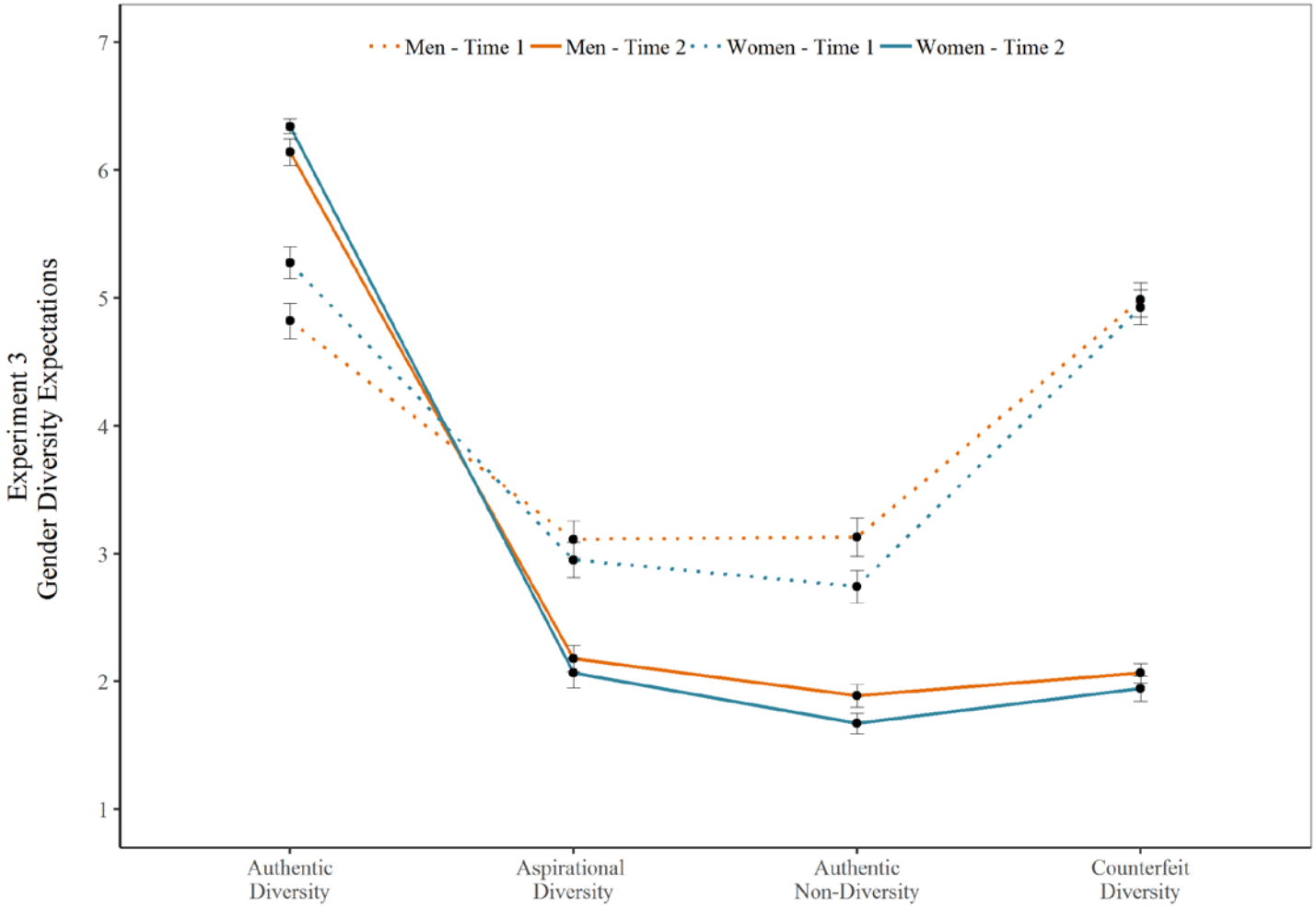
Main Effect of Diversity: $F(2, 396) = 638.78$, $p < .001$, $\eta_p^2 = .76$

Main Effect of Time: $F(1, 396) = 268.01$, $p < .001$, $\eta_p^2 = .40$

Diversity × Time Interaction: $F(2, 396) = 450.84$, $p < .001$, $\eta_p^2 = .70$

Study 3: Results

Manipulation Check



This happens at a lot of colleges

EDUCATION

A Campus More Colorful Than Reality: Beware That College Brochure

December 29, 2013 · 10:31 AM ET

Heard on Weekend Edition Sunday

DEENA PRICHEP

Dr. Tim Pippert and colleagues found that, overall, the whiter the school, the more diversity depicted in the brochures, especially for certain groups.

"When we looked at African-Americans in those schools that were predominantly white, the actual percentage in those campuses was only about 5 percent of the student body," he says. "They were photographed at 14.5 percent."

This happens at a lot of colleges

On the **left**, is the raw photograph

On the **right**, is the photo in UW booklet

Can you spot the difference?

This happens at a lot of colleges

Notice any problems with this photo?

The Black woman is photo-shopped into the photo. Look at the brick background fading away and how the sunlight on the White women isn't on the Black woman.

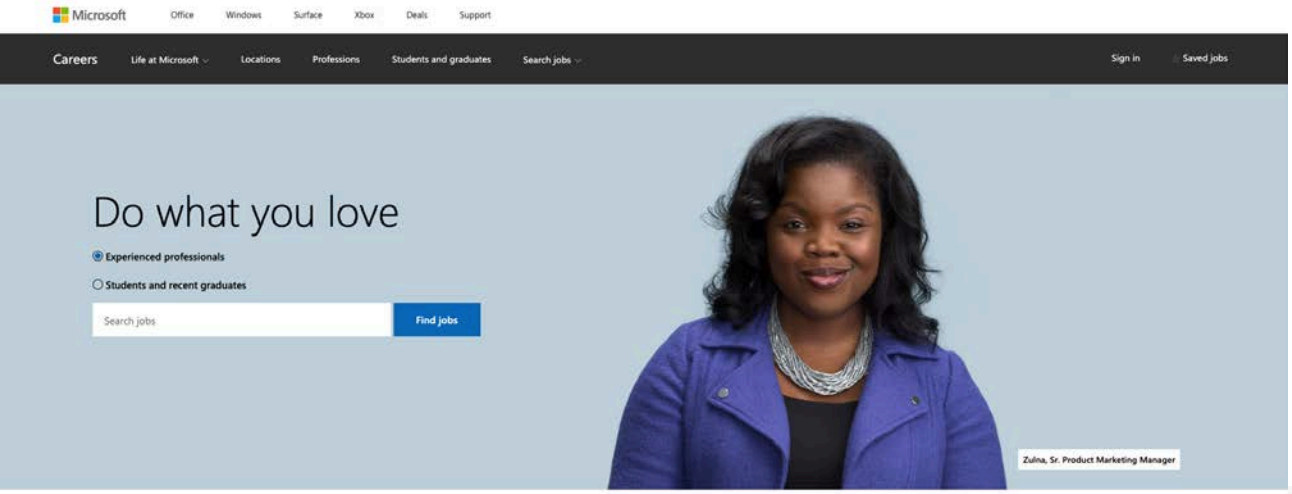
TECH

This Picture Featuring 15 Tech Men And 2 Women Looked Doctored. The Women Were Photoshopped In.

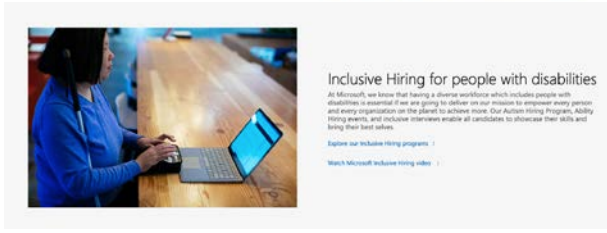
"We meant no harm or had any malicious intent in doing this and we are sorry."

Ryan Mac
BuzzFeed News Reporter

Posted on June 12, 2019, at 1:53 p.m. ET

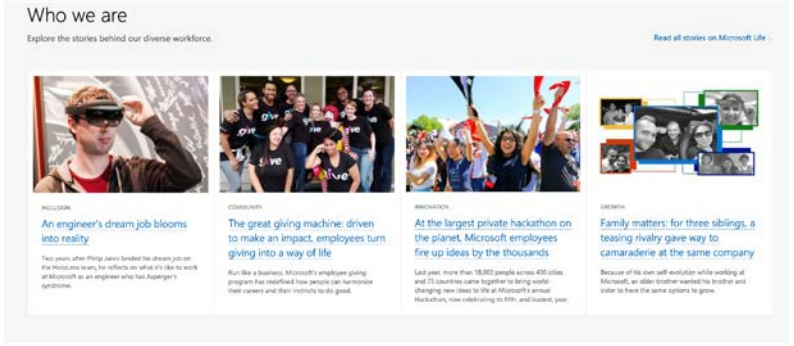

Microsoft
Office
Windows
Surface
Xbox
Deals
Support
Careers
Life at Microsoft
Locations
Professions
Students and graduates
Search jobs
Sign in
Saved jobs
Do what you love
Experienced professionals
Students and recent graduates
Search jobs
Find jobs
Zulna, Sr. Product Marketing Manager

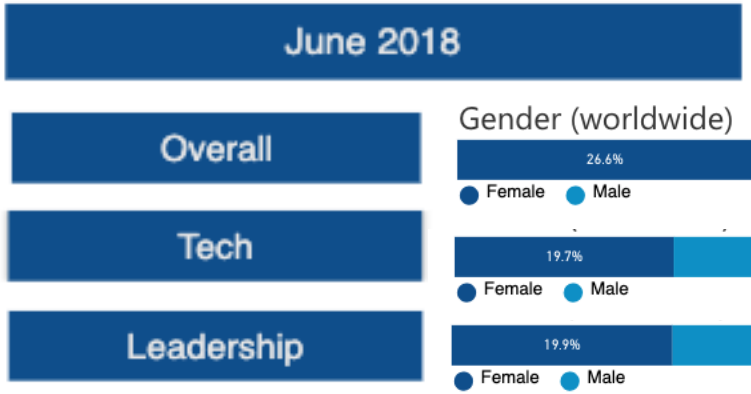
Hear from Microsoft employees
"At Microsoft, you'll be empowered to work on things that you're passionate about. You'll be given autonomy. Your ideas will matter."
— Lauren, Technical Evangelist


Inclusive Hiring for people with disabilities
At Microsoft, we know that having a diverse workforce which includes people with disabilities is essential if we are going to deliver on our mission to empower every person and every organization on the planet to achieve more. Our Autism Hiring Program, Ability Hiring events, and inclusive interviews enable all candidates to showcase their skills and bring their best selves.
Explore our Inclusive Hiring programs
Watch Microsoft Inclusive Hiring video

Microsoft Building 83, Redmond, WA

Glassdoor Reviews
powered by glassdoor
4.1
Satya Nadella
CEO
96%
Approve of CEO
8437 Ratings
Interview Experience
Positive 65%
Neutral 21%
Negative 12%


Who we are
Explore the stories behind our diverse workforce.
Read all stories on Microsoft Life
An engineer's dream job blooms into reality
The great giving machine: driven to make an impact, employees turn giving into a way of life
At the largest private hackathon on the planet, Microsoft employees fire up ideas by the thousands
Family matters: for three siblings, a teasing rivalry gave way to camaraderie at the same company


June 2018
Overall
Tech
Leadership
Gender (worldwide)
26.6%
73.4%
Female
Male
19.7%
80.2%
Female
Male
19.9%
80.0%
Female
Male

Let’s get that fixed

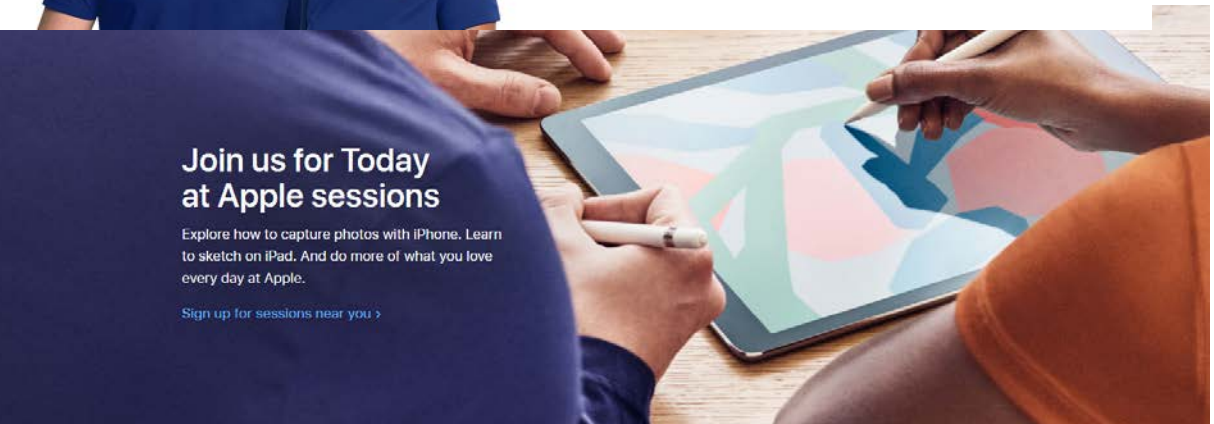
If your Apple device needs repairs, you can go to an Apple Store, visit an Authorized Service Provider, or mail in your device. Whatever you choose, we’ll make sure your device works the way it should.

Choose a repair option ›

Want to talk with someone?

Get help by phone, chat, or email, set up a repair, or make a Genius Bar reservation.

Contact Apple Support ›



Here's data from the last four years.

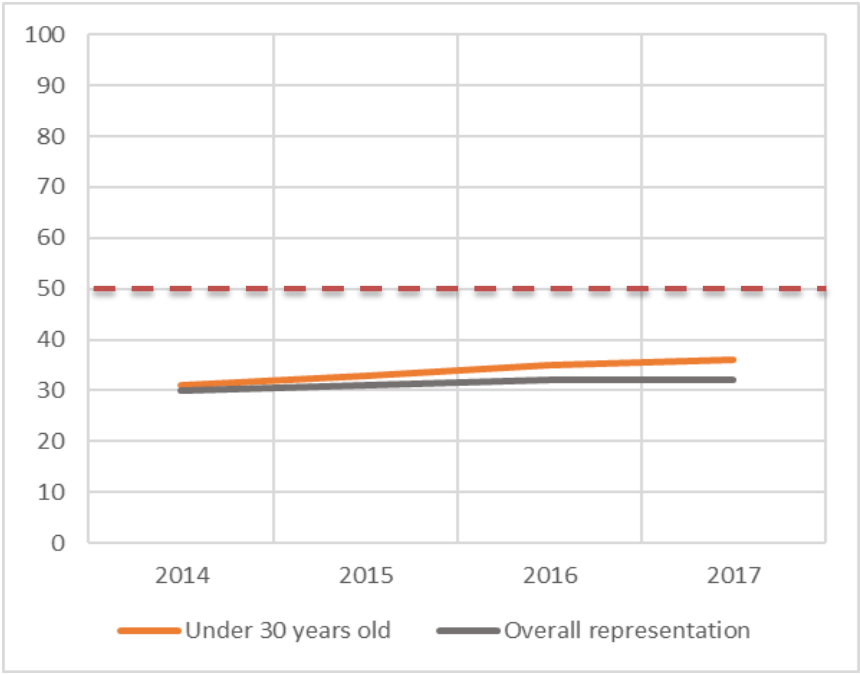
2017 2016 2015 2014

Here's data from the last four years.

2017 2016 2015 2014

Here's data from the last four years.

2017 2016 2015 2014


100
90
80
70
60
50
40
30
20
10
0
2014
2015
2016
2017
Under 30 years old
Overall representation

Aspirational Diversity Example

We aren't where we'd like to be, but we're encouraged that over the past year, representation for people from underrepresented groups at Facebook has increased. This year, the number of women globally has risen from 33% to 35% and the number of women in tech has increased from 17% to 19%. Women now make up 27% of all new graduate hires in engineering and 21% of all new technical hires at Facebook. In the US, we have increased the representation of Hispanics from 4% to 5%, and Black people from 2% to 3%.