Society for the Advancement of Biology Education Research (SABER)

Diversity & Inclusion Speaker Series 2021

LAND OF MILK AND 'HONEY'

Confronting Gendered Experiences in Field Research

Katie Hinde, PhD



Center for Evolution and Medicine
Arizona State University

Arizona State University



-anthroillustrated.com, trainee-led initiative



SCENARIO

<Please ready piece of paper or the note app on your device so you can write down your first thoughts in response to a two-part scenario>

SCENARIO: For safety at an behavioral ecology field site, interns do animal subject focal follows in the forest in two-person teams. Alice often says she doesn't feel well and can't do the physically taxing focal follows.

Looking over the schedule to find alternate tasks for Alice, the field manager notices that since the 2nd week of the field season, Sarah has reported being sick on days she is assigned to be paired with Shawn.

<What are your first thoughts?>

SCENARIO

FLASH POLL!

How many folks first thought was about personal conflict? (yes/no)

How many folks first thought was about sexual harassment? (yes/no)

How many folks first thought was about racial bigotry? (yes/no)

SCENARIO

SCENARIO: For safety at an behavioral ecology field site, interns do animal subject focal follows in the forest in two-person teams. Alice often says she doesn't feel well and can't do the physically taxing focal follows.

Looking over the schedule <u>to find alternate tasks</u> for Alice, <u>the field manager notices</u> that since the 2nd week of the field season, <u>Sarah has reported being sick on days she is assigned to be paired with Shawn</u>.

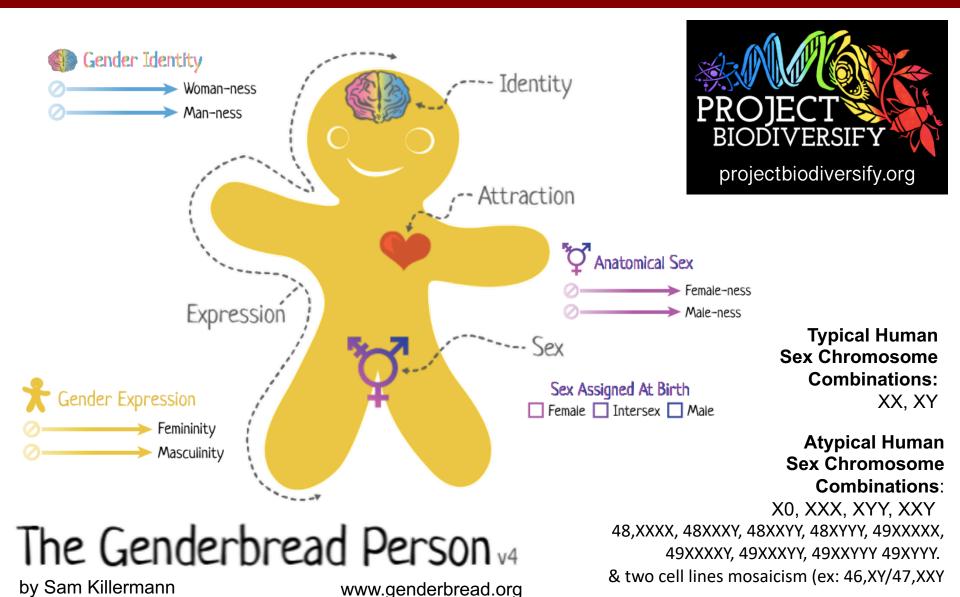
TALK OUTLINE

- GenderedExperiences
- Disrupting Biases

Collective Action
 & Principles of
 Community



GENDER & SEX



- Gendered experiences are widespread in academia
 - -Expectations
 - -Support
 - -Harassment; Assault

"Gendered experiences" is an umbrella term for lived experiences, encounters, and obstacles (or lack of) that are different or disparate as a function of one's gender due to interpersonal or institutional biases, either implicit or explicit (bigotry, sexism, misogyny).



Most research on this topic describes the experiences of cis-women, or compares experiences between cis-men and cis-women.

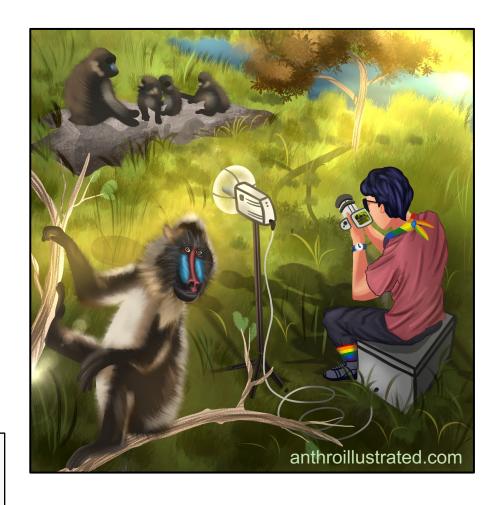
Systemic biases impact studies about the experiences of transwomen and transmen, or women with intersecting identities:

- Not incorporated into research design from the jump
- -Underrepresentation, marginalization in study population

Previous SABER talk:

Systemic disadvantages for LGBTQ professionals in STEM

Erin Cech, PhD, University of Michigan Thursday, March 18th, 9 am PT



- Gendered experiences are widespread in academia
 - -Expectations
 - -Support
 - -Harassment; Assault



GENDERED EXPECTATIONS

Students tend to evaluate women professors/instructors lower and have greater expectations for them to be warm and nurturing in adherence to enculturated gender norms (Hoffmann & Sahley 2020; Nesdoly et al. 2020).

Students expect women professors/instructors to be more accommodating and do more emotional labor (survey, N=88) and when these expectations are not met by women professors, students have stronger, negative emotional reactions (Experiment N=121)(El-Alayli et al. 2016).

Using STEM professional workshops with N=315 participants from 25+ different cultural backgrounds, "Women <scientists> who publicly communicate their work are likely to be stereotyped as 'bitchy', 'bossy', and 'emotional'—often by their own gender." (McKinnon & O'Connell. 2020). Fig 2:

These gendered expectations may particularly create obstacles for transgender women, "whose perceived violations of masculine gender norms produce higher social penalties" (Siegel 2019)

- Gendered experiences are widespread in academia
 - -Expectations
 - -Support
 - -Harassment; Assault



GENDERED SUPPORT

- -men are more likely to be cited
- -symposia organized by men have fewer women presenters
- -all-male review panels favor manuscriptsw/ male corresponding/senior authors
- -men are more likely to be journal editors & reviewers

A randomized double-blind study (n = 127) demonstrated gender bias by both male & female science faculty from researchintensive universities.

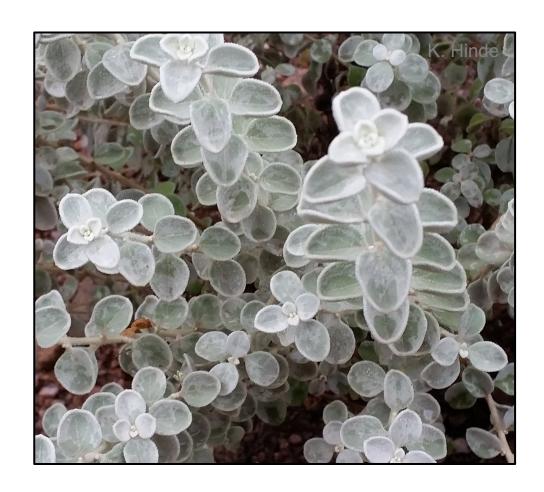
Compared to identical female applicant, faculty rated the male applicant:

- -More competent -More Hirable
- -Higher starting salary
- -Offered more career mentorship

anthroillustrated.com

See Moss-Racusin et al. 2012; Grogan 2018

- Gendered experiences are widespread in academia
 - -Expectations
 - -Support
 - -Harassment; Assault



"Universities and colleges have for a long time ignored sexual harassment, hoped it was non-existent or waited for it to disappear."

"The complexity of sexual harassment as a socio-political problem and a "hot button" political issue in academia and society may exacerbate the anxiety and ambiguity women feel about the situation/incident, making health consequences more serious."

<Gender> "harassment creates an environment in which women are constantly reminded that they are seen as sex objects and therefore, do not belong where they are."

-Roosmalen & McDaniel. 1999. Sexual harassment in academia: A hazard to women's health. Women & Health. 28:33-54.

Cortina, Swan, Fitzgerald, & Waldo. 1998. Sexual harassment and assault: Chilling the climate for women in academia. Psychology of Women Quarterly. 22:419-441

SAMPLING APPROACH

- -Large Midwestern university
- -stratified random sampling, with demographics of interest "over"-sampled
- -women in male-dominated departments (i.e., engineering, chemical sciences, life sciences, and math) "over"-sampled
- -ethnic/racial minorities proportionately "over"-sampled
- snowball sampling technique for lesbian & bisexual respondents

SAMPLE

N=1,037 female participants

-651 undergraduate, 386 graduate

-USA Racial Identity

white (N=356)

Asian American/Pacific Islander (N=204)

Latina (N=118)

African-American (N=98)

East Indian (N=26)

Native American (N=2)

Bi/Multiracial (N=65)

International Students (N=135)

Other (N=11)

-Lesbian or Bisexual Respondents (N=45)

SURVEY INSTRUMENTS

Queried about experiences with faculty on campus:

- -insults, crude comments, sexual remarks
- -unwanted touching or repeated requests for dates or sexual behavior
- -implicit or explicit demands for sexual favors *quid pro quo*
- The final Q-"Have you ever been sexually harassed?" measures "respondents' labeling of their experiences."

RESULTS

- 49% of undergraduate & 53% of graduate women experienced sexually harassing behavior at least "once or twice" from an instructor or professor while at the university
- 20% of undergraduate & 26% of graduate labelled these experiences as "sexual harassment"

Cortina, Swan, Fitzgerald, & Waldo. 1998. Sexual harassment and assault: Chilling the climate for women in academia. Psychology of Women Quarterly. 22:419-441

RESULTS cont

- African-American & Latina
 Women were 1.3x more likely to be harassed
- Lesbian & Bisexual women were
 1.6x more likely to be harassed

"Most important, harassment even altered graduate women's evaluations of their own academic competence; as harassment increased, so did their doubts about their own self-efficacy."



Cortina, Swan, Fitzgerald, & Waldo. 1998. Sexual harassment and assault: Chilling the climate for women in academia. Psychology of Women Quarterly. 22:419-441

Roosmalen & McDaniel. 1999. Sexual harassment in academia: A hazard to women's health. Women & Health. 28:33-54

SAMPLING APPROACH & SAMPLE

- -random sample of all third, fourth, and fifth year women students & fulltime graduate students at large Canadian University
- -1,613 questionnaires mailed out, 455 were completed & returned (RR 28.2%)
- -75% of respondents were undergraduates
- -modal age was 22-24
- -Division Representation:
 Humanities/Arts 38.3%
 Environmental/Health Studies 31.2%
 Sciences 30.1%

SURVEY INSTRUMENT

while at the university:

- -persistent derogatory comments & jokes about women and sexuality
- -regular assessment and comments on women's appearance
- -flirtation
- -pinching, touching, leering, grabbing, etc
- -request for quid pro quo sexual favors
- -sexual insult, invite, intimidation, assault

OUTCOME QUESTIONS:

- -well-being psychological &emotional physical
- -social/interpersonal relations
- -effects on vocational development or life opportunities.

RESULTS "77% of respondents experienced at least one sexual harassment incident ranging from sexual insult to sexual assault; 70% had experienced more than one type"

Direct effects on well-being:



sleep disruption sexual inhibition emotional withdrawal diminished motivation loss of self-confidence weight loss depression; anxiety

Indirect effects on well-being:



diminished personal relationships avoidance of men loss of trust in men loss of friends



"These effects tend to isolate the woman from the known healthful benefits of social interactions."

Roosmalen & McDaniel. 1999. Sexual harassment in academia: A hazard to women's health. Women & Health. 28:33-54

A meta-analysis of workplace sexual harassment/assault (49 primary studies; 89,382 respondents) demonstrated that such experiences undermine work satisfaction & performance, psychological well-being, and physical health, especially for younger targets.

Table 3
Meta-Analytic Relations Between Sexual Harassment, and Job Satisfaction, Organizational Commitment, Job
Performance, Job Withdrawal, Work Withdrawal, Job Stress, Psychological Well-Being, Psychological Distress,
Health Satisfaction, and Health Symptoms

	7 1								
	\boldsymbol{k}	N	r	ρ	$SD_{ ho}$	95% CI	90% CrI	V_{art} (%)	
Job-related									
Satisfaction	54	63,025	27	30	.10	(30,25)	(43,17)	8.75	
Commitment	16	33,131	25	28	.06	(28,22)	(35,20)	18.80	
Performance	7	35,049	21	23	.01	(22,20)	(25,22)	98.74	
Job withdrawal	31	26,856	.19	.22	.07	(.16, .22)	(.13, .31)	21.11	
Work withdrawal	13	3,878	.24	.31	0	(.21, .27)	(.31)	100	
Stress	25	15,027	.14	.16	.04	(.12, .16)	(.12, .21)	62.81	
Psychological									
Well-being	19	34.689	26	30	.07	(29,23)	(38,21)	13.84	
Distress	42	41,616	.23	.25	.10	(.20, .26)	(.12, .38)	9.44	
Physical									
Health	13	33,553	22	26	.07	(25,18)	(34,17)	12.43	
Symptoms	18	6,472	.23	.29	.19	(.16, .31)	(.04, .54)	10.40	

Note. k = number of samples; N = total number of individuals in the k samples; r = means of uncorrected correlations; $\rho = \text{means of corrected correlations}$; $SP_{\rho} = \text{standard deviations of corrected correlations}$; $SP_{\rho} = \text{means of uncorrected correla$

Chan DKS, Lam CB, Chow SY, Cheung SF. 2008. Examining the job-related, psychological, and physical outcomes of workplace sexual harassment: a meta-analytic review. Psychology of Women Quarterly 32: 362–376.

Despite decades, *literally DECADES*, of research on gendered experiences in academia, gendered experiences during fieldwork remained poorly addressed until recently.

What happens in the field stays in

the field.

'It's not happening. And if it is happening it's coming from the local community'



Key & Peele, Comedy Central

Despite decades, *literally DECADES*, of research on gendered experiences in academia, gendered experiences during fieldwork remained poorly addressed until recently.

This oversight motivated the Survey of Academic Field Experiences (SAFE) in 2013...



SAFE STUDY TIMELINE

From the Field: Hazed Tells Her Story of Harassment

January 30, 2012 - Kate Clancy



March

Clancy invited to present in American Association of Physical* Anthropology ethics session



January

2012

2013

2014



Retrograde Reactions: Lady in the Field on the Aftermath of Sexual Misconduct

March 9, 2012 - Kate Clancy



Context and Variation

Human behavior, evolutionary medicine... and ladybusiness.

Clancy contacts a group of colleagues

inviting collaborators for a brief survey for

AAPA ethics session:

Nelson, Rutherford,

& Hinde say yes.

SAFE STUDY TEAM







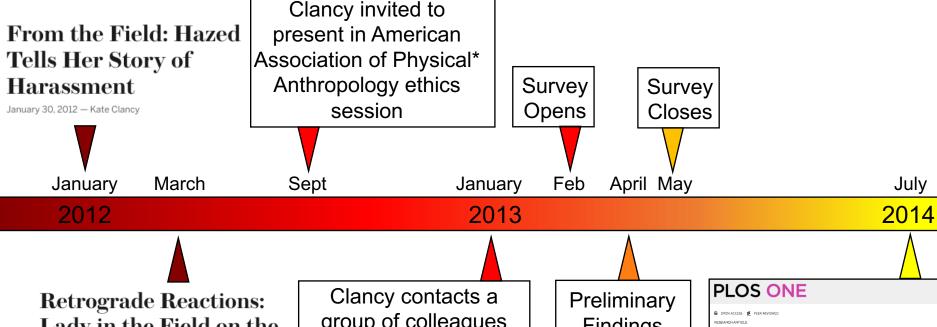


- •Women
- Intersectional Identities



Pre-Tenure

SAFE STUDY TIMELINE



Lady in the Field on the Aftermath of Sexual

Misconduct March 9, 2012 - Kate Clancy

Context and Variation

Human behavior, evolutionary medicine... and ladybusiness.

group of colleagues inviting collaborators for a brief survey for AAPA ethics session: Nelson, Rutherford,

& Hinde say yes.

Findings Presented

Survey of Academic Field Experiences (SAFE): Trainees Report Harassment and Assault

Kathryn B. H. Clancy 🖪, Robin G. Nelson, Julienne N. Rutherford, Katie Hinde

SAMPLING APPROACH & SAMPLE

- -Online survey posted across myriad social media, blog, media platforms
- -chain referral sampling (in a snowball manner)
- -A majority of the sample were women N=516/666 (77.5%).
- -Predominantly heterosexual (N=572/666, 85.9%), respondents represented six different sexual orientations
- -N=658/666 identified as male or female (98.7%)
- -N=581/666 (87.2%) identified solely as Caucasian

SAMPLE cont

- -respondents originated from 30 countries, N=498/666, 74.8%
- -Trainees: students and postdocs (N=386/666, 58%).
 - Faculty: adjunct, tenure-track, and tenured faculty (N=179/666, 26.9%)
 - Employees (N=20, 3%)
 - Non-Academics (N=43, 6.5%)
- -32 different disciplines across the life, physical, and social sciences
 Anthropologists (319/666, 47.9%)
 - Archaeologists (159, 23.9%)
 - Biologists (68, 10.2%)
 - Zoologists (31, 4.7%)
 - Geologists (29, 4.4%)



FIELD EXPERIENCE

- -Respondents had worked at an average of 3.2±0.04 field sites, however, on average, respondents had only ever worked at one field site directed by a woman (1.3±0.04).
- -Over 50% of respondents in the survey had conducted research at four or more field sites (N=365/666, 54.8%), with no difference between men and women's reporting in number of field sites (3.3±0.08 vs. 3.1±0.05, N=658).





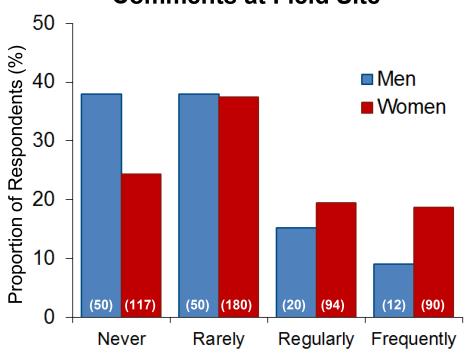


CODES & POLICIES

- -Fewer than half of survey respondents recalled ever encountering a code of conduct at any of the field sites at which they had worked (N=251/666, 37.7%).
- -Fewer than one fourth of respondents recalled having ever worked at a field site with a sexual harassment policy (148/666, 22.2%).

A majority of survey respondents reported that they had directly observed or been told about the occurrence of other field site researchers and/or colleagues making inappropriate or sexual remarks at their most recent or most notable field site (N=448/619, 72.4%).

Frequency of Inappropriate Comments at Field Site





"Have you ever personally experienced inappropriate or sexual remarks, comments about physical beauty, cognitive sex differences, or other jokes, at a field site? (If you have had more than one experience, the most notable to you)."

Yes/No/I don't know

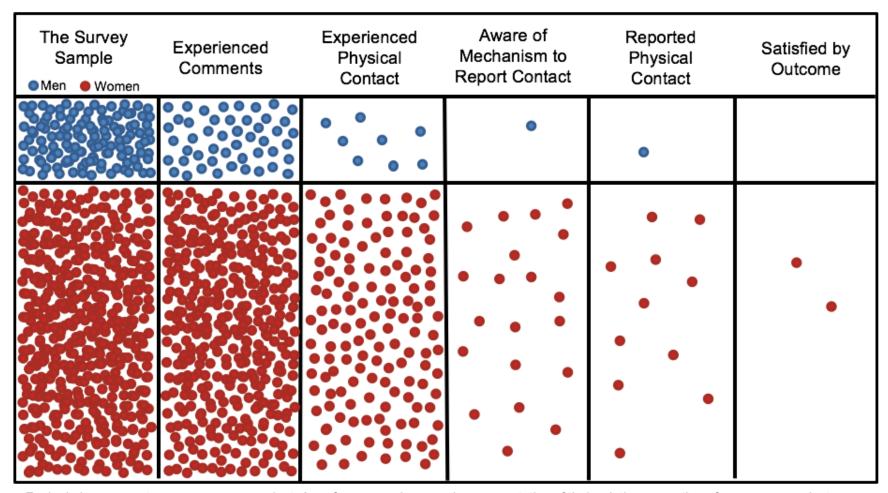
N=423/658, 64% women 3.5x

"Have you ever experienced physical sexual harassment, unwanted sexual contact, or sexual contact in which you could not or did not give consent or felt it would be unsafe to fight back or not give your consent at a field site? (If you have had more than one experience, the most notable to you)."

Yes/No/I don't know

N=140/644, 21.7% women 5.5x

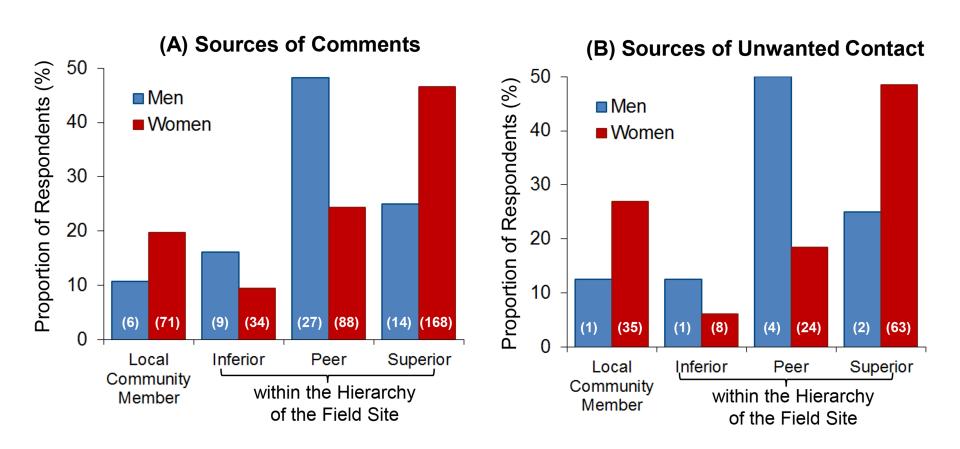




Each circle represents one survey respondent. Area for men and women is representative of their relative proportion of survey respondents.

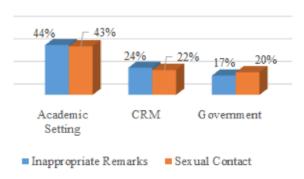
Clancy KBH, Nelson RG, Rutherford JN, Hinde K (2014) Survey of Academic Field Experiences (SAFE): Trainees Report Harassment and Assault. PLoS ONE 9: e102172.

Over 90% of women and 70% of men were trainees or employees at the time that they were targeted



Clancy KBH, Nelson RG, Rutherford JN, Hinde K (2014) Survey of Academic Field Experiences (SAFE): Trainees Report Harassment and Assault. PLoS ONE 9: e102172.

Academic had higher incidence than industry & government settings



Gender Disparities in Tasks at Work-Associated Shared Living

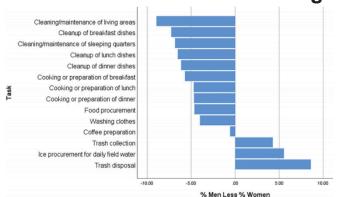


FIGURE 8. Bar chart showing the difference between the percentage of men and the percentage of women performing household tasks. Note: Negative values indicate tasks more associated with women, and positive values indicate tasks more associated with men.

Meyers et al. 2018; Meyers et al. 2015

Workplace Environment Survey Technical Report Department of the Interior in Two Waves: Permanent Employee (2017) & Seasonal (2018)

Bureau of Indian Affairs
Bureau of Land Management
Office of the Inspector General
U.S. Fish and Wildlife Service
Interior Business Center
Office of the Special Trustee
Office of the Solicitor
Bureau of Reclamation
Office of Natural Resources Revenue
Bureau of Ocean Energy Management
Office of the Secretary
Office of Surface Mining Reclamation and Enforcement
Bureau of Safety and Environmental Enforcement
U.S. Geological Survey, US National Park Service

Gender Harassment more likely to be directed at unmarried than married women indicating facultative control of harassing behaviors by perpetrators.



Qualitative Interviews& Thematic Analyses

TABLE 1. Demographic Characteristics of Survey Respondents and Subsample of Interviewees

	Willin	g to Be			
	Interv	viewed	Interviewees		
	(n =	(n = 26)			
GENDER					
Female	190	83%	23	89%	
Male	39	17%	3	11%	
RACE					
White	200	87%	21	81%	
Person of color	21	9%	4	15%	
Decline to state	8	3%	1	4%	
SEXUAL ORIENTA	TION				
Heterosexual	195	85%	20	77%	
Other	33	14%	6	23%	
Decline to state	1	<1%	0		

Field Experiences

Tests: behavioral "tests" (often endurance or tolerance evaluations) that served to establish in-group/out-group dynamics

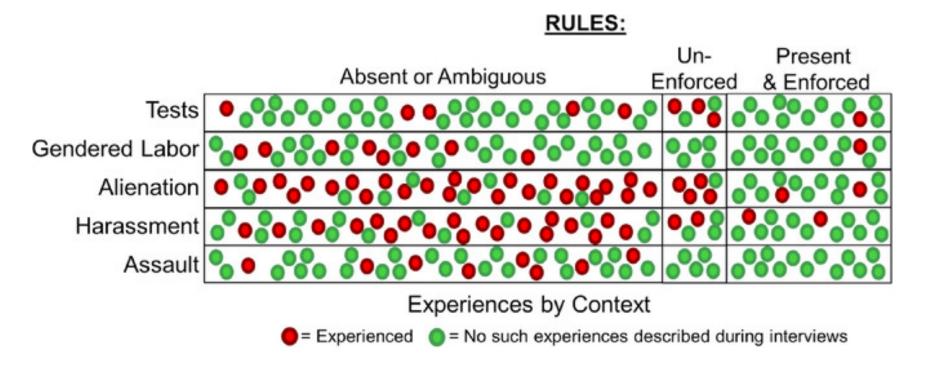
Gendered Labor: women and men being tasked with different kinds of responsibilities that often mapped onto societal prescriptions regarding women's "physical limitations or natural inclinations." These tasks included women being required to do the cooking and shopping in team settings

Alienation: a feeling of isolation from other researchers or the research that diminished their contributions to the project or removed them from the primary tasks of data collection or analysis



Nelson RG, Rutherford JN, Hinde K, & Clancy KB. 2017. Signaling safety: Characterizing fieldwork experiences and their implications for career trajectories. American Anthropologist. 119:710-722.

Unenforced rules function as no rules





Context & Characteristics of POSITIVE Field Experiences

- -the sites were fair and/or egalitarian in execution
- -living and working conditions were intentional and safe
- -directors anticipated problems and created avenues for conversations or reporting
- -the importance of having women in leadership roles at their sites who are respected & valued by other leaders

"The field director, on the first day, gathered everyone around and even though he was very casual about it, he welcomed us to the site and listed the ground rules. . . . He made it seem that we were all at the same level and if there were any problems, come to him. So he made it clear how he was going to act as a field director. Sort of what his goals were this field season and how we should all behave and how we should be respectful of others and don't goof off but we were also going to have fun in the evenings and when we're not working. We shouldn't be afraid to come to him with any problems, if they were to occur. And when a problem did occur, I know he took care of it or handled it appropriately." -Respondent Quote

Nelson RG, Rutherford JN, Hinde K, & Clancy KB. 2017. Signaling safety: Characterizing fieldwork experiences and their implications for career trajectories. American Anthropologist. 119:710-722.

CULTURE CHANGE

- 1) Empower & recognize survivors and other vulnerable members of our professional community as resourceful scholars who have met the immediate and enduring effects of trauma and risk with creativity, self-preservation, and determination
- 2) Affirm a fundamental commitment to promoting physical & emotional safety
- 3) Generate relations of trust through consistent and transparent procedures, centering survivors' self-determination, privacy, and right to disengage be honored

- 4) Develop and implement survivorcentered, anti-harassment programs
- 5) Build cultural competency & cultural humility into anti-harassment programs

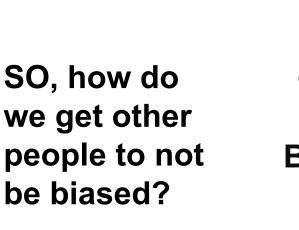


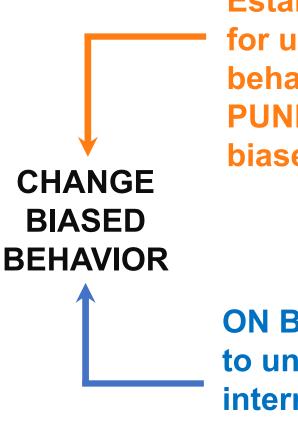
"No one should have to endure harassment to be able to do the work they love," -B. Voss, Associate Prof, Stanford



EXTRINSIC

INTRINSIC





Establish REWARDS for unbiased behavior & PUNISHMENTS for biased behavior

ON BOARD people to understand, interrogate, reflect, & disrupt their own biases

DISRUPTING BIASES

COGNITIVE BIASES

INDIVIDUAL TENDENCIES & CONTEXT

ENCULTURATED BIASES

In-Group / Out-Group

Status Quo

Fundamental Attribution

Social Learning

Personality

Lived

Experience

Identity

Norms, Mores, Values, & Rules

Philosophical & Ethical Perspectives

Cultural Relativism



COLLECTIVE ACTION



COLLECTIVE ACTION

Organizational

Field Site/Lab/Classroom

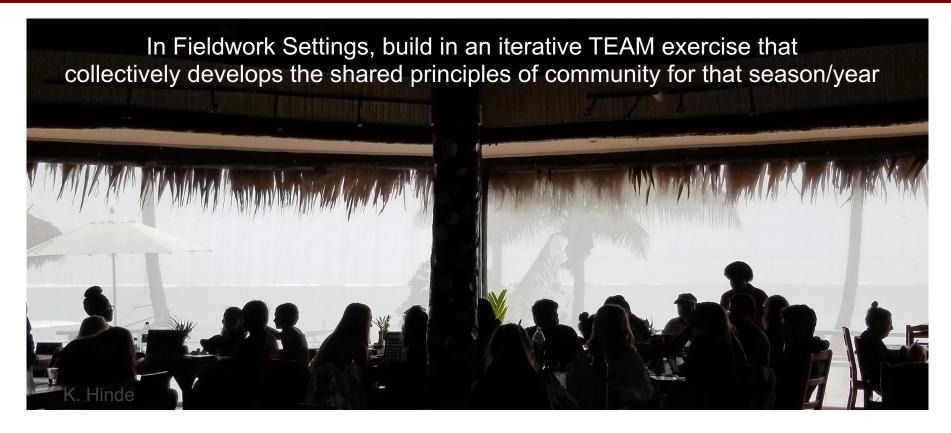
Codes of Conduct*
Principles of Community**
Oblique Reporting Mechanisms
Satellite Phones (departmental support)
Equity audits of TA, RA, trainee tasks

<u>Individual</u>

Implicit Bias Assessment
Continuing Education (at least annually)



PRINCIPLES OF COMMUNITY



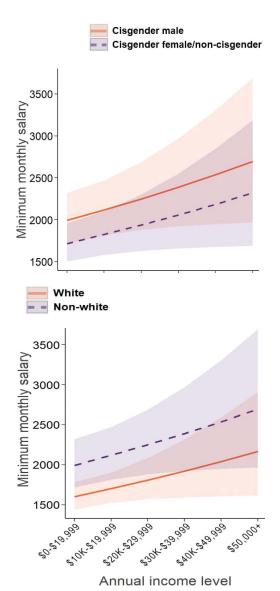


- 2. Small Group*"What's Missing?""Who's Missing?"
- Combine
 Refine
 "Finalize"
- 4. Individual Reflection & Commitment
- 5. Revisit & Refresh (repeatedly)

PRINCIPLES OF COMMUNITY

Women continue to undervalue their earning power, it's on researchers to not exploit that

Living wages are required to recruit racial minority & LGBTQ students and interns to work at field sites



Attracting Diverse Students to Field Experiences Requires Adequate Pay, Flexibility, and Inclusion 3

Alex J Jensen, Sara P Bombaci, Laura C Gigliotti, Stephen N Harris, Courtney J Marneweck, Mike S Muthersbaugh, Blaise A Newman, Shari L Rodriguez, Elizabeth A Saldo, Kyle E Shute, Keifer L Titus, Amanda L Williams, Sze Wing Yu, David S Jachowski

BioScience, biab039, https://doi.org/10.1093/biosci/biab039

Published: 14 April 2021

Additional considerations to recruit diverse junior colleagues:

- Pay
- Season/Timing
- Work/School Responsibility
- Family/Care Commitments
- Mental/Physical Health
- Work Conditions & Environment
- Qualification Level
- Housing
- Inclusive & Safe Workspace

Society for the Advancement of Biology Education Research (SABER) Diversity & Inclusion Speaker Series 2021

THANK YOU FOR BEING HERE TODAY

Katie Hinde, PhD



Center for Evolution and Medicine

Arizona State University Arizona State University



*This presentation included "digital illustrations that include the skeletal remains of humans & other animals, and other displays of death. These illustrations are not real depictions of skeletons who were once living people." —anthroillustrated.com, student-led initiative

Co-sponsored by Arizona State University's HHMI Inclusive Excellence Project, the SEISMIC Collaboration, the Community College BIO INSITES & the ASU RISE Center