

# Contextual and Cultural Practices that Normalize Sexism in Geology Field Programs

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## INTRODUCTION

- Fieldwork is a required element for most undergraduate geology students.
- Research suggests that undergraduate female students may experience sexism and a hostile social climate in field settings, which can be a barrier to their future academic and career success.
- We conducted a study to examine the following research questions: What types of sexism are manifested in field programs? What contextual and cultural characteristics enable sexism to occur?

## METHODS

- We collected interview data from faculty and students in three geoscience field programs.

### Data Collection Sites and Participants

- The three programs were purposely selected because they were residential programs that focus on geology and occur in the western United States.
- Participants: 18 students (11 male and 7 female) and 17 instructors (12 male, 5 female). Instructors included faculty and teaching assistants.

### Data Collection and Analysis

- Individual interviews were conducted within one month of the end of each participant's field program.
- Data were analyzed by a team using a two-cycle coding process
  - First Cycle: descriptive codes were assigned to interview data
  - Second Cycle: first cycle codes were grouped and themes identified.
- Team members conducted peer review of coding to maintain consistency.

Table 1. Interview questions.

1.What is the most memorable experience in which you were treated differently based on gender in your field camp?
2.Can you tell me about what happened?
3.Who was involved (for example a student, professor, or someone else)?
4.When did it happen?
5.Where did this happen?
6.How did that experience affect you?
7.How did the experience make you feel?
8.Did you tell anybody about your experience? If yes, what happened? If not, what was the reason you didn't tell somebody?

## RESULTS AND DISCUSSION

### Theme 1: Sexism is a common experience in field programs and is normalized.

- Most participants (31 out of the 35) reported encountering or witnessing sexist comments or behaviors. Sexism was reported in all three field programs.
- Table 2 includes the types of sexism. Participants generally reported more than one type of sexism.
- Most participants (n=29) described sexist experiences as normalized within their geology field program.
- Normalization was identified as instances when participants accepted or "explained away" a sexist experience because they considered the sexist incident as a nonissue; accommodated and accepted the situation; described the type of sexism as frequently occurring, normal or typical; or explained away the incident as an expected social norm.
- Table 2 includes the normalization categories and examples for each type of sexism.

### Theme 2: Contextual and cultural practices within geology field programs enable sexism to be normalized.

- Four contextual and cultural practices in field programs enabled sexism to occur:
  - Physical aspects** associated with traditional, field-based program locations in remote wilderness areas enable differential experiences for women. For example, women were uncomfortable with the lack of privacy in open wilderness areas for bathroom use during the day.
  - Rules and guidelines:** Sexism was enabled because there were no official program rules and guidelines about behaviors; there were rules and guidelines but there was no training about them; and/or there were rules and guidelines and there was training, but the guidelines were not followed.
  - Curriculum and academic structure:** Traditional field programs usually have students working in groups to complete projects. Working in groups away from others can enable behaviors in how students interact. For example, male students were reported as frequently disregarding female students' ideas during group projects, even when those ideas were correct.
  - Blending academic and informal spaces and times:** Traditional, field-based programs blend formal academic contexts with informal spaces and times. For example, during the day, students work on academic projects and in the evenings they socialize and drink together. This blending makes the boundaries unclear for what behaviors are appropriate in each context.
- Table 2 includes the types of practices associated with each type of sexism.

## RESULTS AND DISCUSSION (CONTINUED)

Table 2. Types of sexism, examples of how each type is described as normalized, examples of the contextual and cultural practices enabling sexism to be normalized.

Sexist Comments and Jokes
<b>Normalization</b> <ul style="list-style-type: none"><li>Nonissue or accepted: Related to a sexist comment made by a student: "<b>I should've said something, but it was like, well, if nobody appears uncomfortable then I don't need to say something.</b> You know, it wasn't a particularly egregious statement. But, it stuck in my mind and bugged me afterwards. <b>I should have said something there. But I figured the total lack of reaction from everybody would hopefully have been enough.</b>" (Male instructor)</li><li>Frequently Occurring: "<b>It's very common to hear students saying sexual stories or jokes.</b> I'm really not comfortable with a lot of it, but I can tell you is it is <b>quite common</b> to hear students saying things." Male instructor</li><li>Typical: "<b>It was all within the range of normal.</b> Field camp brings something out in people that they wouldn't be in regular situations. Students become a lot more brash, and they start speaking freely about everything that's on their mind. One was a particularly inappropriate joke. There was a young man saying that women have smaller brains than men." (Female instructor)</li></ul> <b>Contextual and Cultural Practices</b> <ul style="list-style-type: none"><li>Blending academic and informal spaces and times: "People talk about sexual things <b>outside of class.</b> I guess just when you've been around the same people for five or six weeks, and, you know, <b>drinking around a fire,</b> stuff can come up." (Female student)</li></ul>
Differential Treatment or Experiences Based on Gender
<b>Normalization</b> <ul style="list-style-type: none"><li>Nonissue or accepted: Related to differential bathroom experiences: "<b>We females just figured it out or held it,</b> I guess." (Female student) "It's definitely a thing <b>you have to get over,</b> you know, try and find the best place, it wasn't a fun time" (Male student)</li><li>Social Norm: "We get quite a few male students from the South and they have that <b>southern gentleman culture</b> kind of thing where the guys carry the equipment and stuff like that – we certainly do have plenty of that, the guys stepping up in that regard. I don't think it comes from any sort of belief that women are inferior. <b>It's just the way the guys were raised.</b>" (Female instructor)</li></ul> <b>Contextual and Cultural Practices</b> <ul style="list-style-type: none"><li>Physical aspects: "I've heard complaints from the female students that they don't feel they have enough privacy going to the bathroom in the field, and I totally get that. In some areas where we work <b>there's not a lot of vertical obstacles to block view,</b> and that has made females uncomfortable." (Male instructor)</li><li>Rules and guidelines: Related to differential gender experiences going to the bathroom in the field: "During the day, you go and find some place where you think is hidden from view, which was a lot easier for the men to do. Yeah, that actually was kind of a problem in some cases for the females. Because on some days the group was never in place, so there was nowhere you could go with privacy and it's a lot harder for women to just like turn around. <b>It was never handled or acknowledged by the instructors.</b>" (Female student)</li></ul>
Women Treated or Perceived as Incompetent
<b>Normalization</b> <ul style="list-style-type: none"><li>Frequently Occurring: "There were gender issues in groups where the male students would think that the female students were not as strong. The males made some disparaging comments in jest, but nevertheless not well received. It's <b>quite a common occurrence.</b> And often it's wrong, by the way." (Male instructor)</li><li>Social Norm: "One of the guys said something sexist to one of the girls in our cabin implying that she was incompetent because she was a girl. This particular girl was one of the top students at her university, won awards, and had a 4.0 and did not deserve to have her judgment questioned. The guy said that he didn't realize that he was doing anything wrong or that it was offensive in any way, but <b>that's just how he was raised,</b> joking about things like that." (Female student)</li></ul> <b>Contextual and Cultural Practices</b> <ul style="list-style-type: none"><li>Curriculum and academic structure: "<b>I got grouped with the same male student a couple of times.</b> Any time I would have an idea, he would not include it in the assignment. Even if I had the correct answer, <b>he would ignore it, and I would see that reflected in our grades later on.</b> He always felt that he was smarter than me and that I didn't know as much. I felt like he was like "oh you're a female, and you don't know as much as I do. I discussed it with my three female friends at camp. We agreed, he obviously thinks that females aren't as smart or as capable." (Female student)</li></ul>
Physical Sexual Harassment
<b>Normalization</b> <ul style="list-style-type: none"><li>Frequently Occurring: "It's something that you see in a population of students. There were students who have crushes on other students take things too far. We had the situation where a male student wanted to have a physical relationship with a female student, but she wasn't interested. <b>That happens regularly.</b>" (Male instructor)</li></ul> <b>Contextual and Cultural Practices</b> <ul style="list-style-type: none"><li>Rules and guidelines: "We had the situation where male student wanted to take things further than the female. That happens on a regular basis. I don't know how far it goes to the point of inappropriate. <b>We don't get that kind of training as faculty, and it would be useful to know how to handle these things.</b>" (Male instructor)</li><li>Blending academic and informal spaces and times: "There was an incident with the male student. <b>The student and a girl got drunk and the guy tried to pressure the her to have sex.</b>" (Male instructor)</li></ul>
Gender Stereotype
<b>Normalization</b> <ul style="list-style-type: none"><li>Typical: "<b>I typically have more problems with men</b> than I have with women in terms of disciplinary situations, during grading – not when students were in earshot, I would say to the TAs 'you know, men are just more immature than the women. The women seemed to be better students. Why can't these guys grow up.' I know that's a gender stereotype." (Male instructor)</li></ul> <b>Contextual and Cultural Practices</b> <ul style="list-style-type: none"><li>Rules and guidelines: "There was one exercise taught by all men from industry. Everything they said made it seem like such a male-dominated industry. And they would always use men and male pronouns and only as a forced afterthought they would add "women" or a female pronoun. <b>The instructors were definitely aware of the negative vibes from the industry instructors, but they didn't really address it.</b>" (Female student)</li></ul>

## CONCLUSION

- Sexism has been normalized in the context of geology field programs. Sexism was described as typical, frequent, common, a nonissue, and an expected social norm.
- Sexism may have been allowed to be normalized because faculty and students are not aware that it exists or are not aware of the negative consequences of sexism.
- When participants described sexism as problematic, they found individual strategies to accommodate the sexism (see the Normalization category "Nonissue or accepted" examples in Table 2).
- We found contextual and cultural practices associated with traditional, field-based geology programs that enable sexism to persist and be considered normal.
- Sexism is a structural issue that must be addressed by changing the practices at field camp. Examples include: establishing guidelines for acceptable behaviors during the day and evening, creating safe reporting processes for sexual harassment, and implementing training for all instructors and students about the guidelines. The bathroom situation while in the field was described as a specific and systemic issue that impacted students in many ways. The bathroom situation can easily be addressed if programs provided inexpensive, mobile popup bathroom tents during the day and for all individuals.
- As long as individuals within geology field programs consider sexism to be a frequent and normal part of their experience and as long as contextual and cultural practices remain unchanged, sexism will not be disrupted in geology field programs.

## CONTACT INFORMATION AND ACKNOWLEDGEMENTS

- For questions and references, please contact Julie Sexton, [julie.sexton@colorado.edu](mailto:julie.sexton@colorado.edu).
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