

Unwelcome behaviors at the Evolution meetings: Survey results

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Abstract

Anecdotal reports of unwelcome behaviors at previous Evolution meetings prompted SSE, ASN, and SSB to survey participants about meeting climate.

Big Picture

- 14% of 882 respondents report experiencing unwelcome behavior
- 3% included assault or harassment
- Undergraduates, LGBTQA+, women, pre-tenure faculty, and members from underrepresented groups experienced the most unwelcome behavior
- Targeted individuals primarily cited gender, age, and ethnicity

Introduction

- Science is full of unwelcome behaviors, including harassment, assault and more. This has been well documented, including in our field^{1,2,3,4}
- Incidents at Evolution 2017 strongly indicated that attention was merited
- The three societies formalized a robust Code of Conduct, as well as procedures for confidential reporting and the hiring of an external safety officer (Dr. Sherry Marts this year)
- They also approved an IRB-approved study of unwelcome behaviors.
- We sent out surveys to 5,116 unique addresses and received 882 responses.

Methods

- Study was approved by an institutional review board (UTK IRB-18-04442-XM)
- Invitations to the survey were sent to all 5,116 unique email addresses aggregated from membership and meeting attendee information from all three societies.
- Only those receiving the invitation directly were allowed to fill out the survey
- Survey responses were analyzed in R, using the packages drake, googledrive, knitr, plotly, ggplot2, plyr, Hmisc, superheat, RColorBrewer, gridExtra, xlsx, and kableExtra, as well as 42 functions in over 500 lines of code.
- Confidence intervals were calculated using Hmisc::binconf() with an alpha of 0.05.

Results

- Overall, 10% of Evolution respondents report being belittled, 6% were made to feel unwelcome, 2% report being bullied, discriminated against, or harassed, and 1% report being assaulted.
- A total of 7 respondents reported assault; note that these assaults may have happened at the Evolution meeting over a multi-year span
- Individuals at higher risk: 18% of undergraduates attending a meeting report being harassed and/or assaulted, and the proportion of women experiencing unwelcome behavior is three times that of men at Evolution.
- Our members adjust their behavior based on this unwelcome behavior. 21% of women think about their personal safety more as a result of past experiences at Evolution (for men 1%)
- Across all members surveyed, 16% look for opportunities to intervene

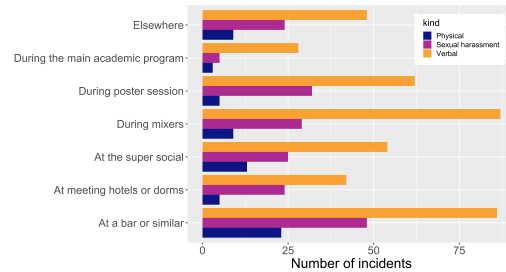


Figure 1: Location of unwelcome behaviors: number of responses for each. Physical harassment or assault is most common at local bars or similar and at the meeting-sponsored super social, even though these make up far less time than the main academic program.

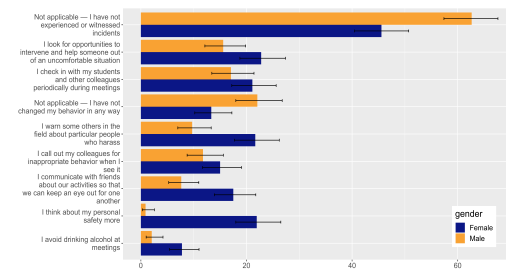


Figure 2: Percentage of individuals changing their behavior in response to past incidents at Evolution.

Topics for Discussion

- Harassment, assault, and other unwelcome behaviors are present at the Evolution meetings.
- Women, people from underrepresented ethnicities, and undergraduates, are far more likely to experience this than members of other groups.
- One unexpected finding is that LGBTQA+ individuals, while experiencing unwelcome behavior at an elevated rate, attribute this more to sex/gender or age than to their sexual orientation.
- Unwelcome behavior based on age was remarkably high across all groups.

One caveat is that we did not ask about all possible traits: the fact that overall there is not much perceived unwelcome behavior based on religion or disability, for example, does not mean it does not exist. It is possible that people with a particular religion or disability experience unwelcome behavior at a very high rate, but make up only a small component of the population, and so this signal cannot be detected using these data.

References

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- Waldman, M. 2018. "Prominent geneticist out at UC Irvine after harassment finding." Science <https://www.sciencemag.org/news/2018/06/prominent-geneticist-out-uc-irvine-after-harassment-finding>

Table 1: Survey responses and results. The first first two columns after "Number of people responding" reflect reported incidence of harassment or assault, percentage (lower, upper), in biology in general and at the Evolution meetings, respectively; the last column shows reports of any unwelcome behavior at the Evolution meetings. Note the large proportion of undergraduates experiencing harassment and assault at the meeting. For clarity, cells with a rounded average of zero were left blank.

Category	Selection	Number of people responding	Biology: Harassment/Assault	Evolution meetings: Harassment/Assault	Evolution meetings: Unwelcome behavior
All	All	882	15 (13, 17)%	3 (2, 4)%	14 (12, 17)%
Orientation	Straight or heterosexual	622	16 (14, 19)%	3 (2, 5)%	16 (13, 19)%
	Gay, lesbian, bisexual, pansexual, or asexual	68	29 (20, 41)%	4 (2, 12)%	26 (17, 38)%
Gender	Female	360	28 (24, 33)%	5 (3, 8)%	25 (21, 30)%
	Male	340	6 (4, 9)%	1 (0, 3)%	8 (6, 11)%
	Non-binary, fluid, neutral, or non-conforming	6	17 (1, 56)%		17 (1, 56)%
Ethnicity	White, non-Hispanic	564	16 (13, 20)%	3 (2, 5)%	16 (13, 20)%
	Other than White, non-Hispanic	77	22 (14, 33)%	3 (1, 9)%	23 (15, 34)%
Career stage	Undergraduate	11	36 (15, 65)%	18 (5, 48)%	27 (10, 57)%
	Graduate student	165	16 (11, 23)%	4 (2, 8)%	14 (9, 20)%
	Postdoc	160	16 (11, 23)%	3 (1, 7)%	19 (13, 26)%
	Pre-tenure faculty	101	19 (12, 28)%	4 (2, 10)%	24 (17, 33)%
	Non-tenure track faculty	33	12 (5, 27)%		15 (7, 31)%
	Tenured faculty	218	19 (14, 25)%	1 (0, 4)%	15 (11, 20)%
	Non-academic professional	11			18 (5, 48)%
	Academic professional	21	14 (5, 35)%		5 (0, 23)%

Table 2: Individuals' perceptions of why they were targeted, percentage (lower, upper). Individuals are not part of any one category, and there can be interaction terms (someone presenting a gender that suffers discrimination, and an ethnicity that suffers discrimination, may suffer far more discrimination than someone in just one of these categories - this is also known as intersectionality). For example, women were eight times more likely to receive unwelcome behavior as a result of physical traits than men were. For clarity, cells with a rounded average of zero were left blank.

Category	Selection	Sex or gender	Sexual orientation	Age	Race ethnicity nationality	Physical traits	Real or perceived disability	Religion	Other
All	All	11 (9, 14)%		8 (6, 10)%	2 (2, 4)%	4 (2, 5)%		1 (0, 1)%	3 (2, 5)%
Orientation	Straight or heterosexual	13 (11, 16)%		9 (7, 11)%	3 (2, 5)%	4 (3, 6)%		1 (0, 2)%	4 (2, 5)%
	Gay, lesbian, bisexual, pansexual, or asexual	21 (13, 32)%	4 (2, 12)%	19 (12, 30)%	1 (0, 8)%	6 (2, 14)%	1 (0, 8)%		6 (2, 14)%
Gender	Female	25 (21, 30)%	1 (0, 2)%	16 (13, 20)%	3 (2, 5)%	8 (5, 11)%	1 (0, 2)%		4 (2, 6)%
	Male	1 (0, 3)%		3 (1, 5)%	3 (2, 5)%	1 (0, 3)%		1 (0, 3)%	4 (2, 6)%
	Non-binary, fluid, neutral, or non-conforming	17 (1, 56)%		17 (1, 56)%					
Ethnicity	White, non-Hispanic	15 (12, 18)%	1 (0, 2)%	10 (8, 13)%		4 (3, 6)%		0 (0, 1)%	4 (2, 5)%
	Other than White, non-Hispanic	16 (9, 25)%		10 (5, 19)%	17 (10, 27)%	6 (3, 14)%	1 (0, 7)%	1 (0, 7)%	5 (2, 13)%
Career stage	Undergraduate	18 (5, 48)%		18 (5, 48)%		9 (0, 38)%			
	Graduate student	15 (10, 21)%	1 (0, 4)%	11 (7, 17)%	4 (2, 8)%	3 (1, 7)%			1 (0, 3)%
	Postdoc	14 (9, 20)%		10 (6, 16)%	2 (1, 6)%	6 (3, 10)%	1 (0, 3)%		5 (3, 10)%
	Pre-tenure faculty	18 (12, 26)%	1 (0, 5)%	11 (6, 18)%	4 (2, 10)%	7 (3, 14)%		2 (1, 7)%	9 (5, 16)%
	Non-tenure track faculty	6 (2, 20)%		3 (0, 15)%	3 (0, 15)%	3 (0, 15)%	3 (0, 15)%		9 (3, 24)%
	Tenured faculty	11 (8, 16)%		8 (5, 13)%	1 (0, 4)%	3 (1, 6)%		1 (0, 3)%	3 (1, 6)%
	Non-academic professional	18 (5, 48)%		18 (5, 48)%		9 (0, 38)%			
	Academic professional	10 (3, 29)%			5 (0, 23)%			5 (0, 23)%	