

Diversity Round Table: Neuroscience and the LGBTQ Community

OHBM Diversity and Inclusivity Committee Co Organizer

University of Miami
Miami, FL
United States

Lucina Uddin, Ph.D. Organizer

University of Miami
Psychology
Coral Gables, FL
United States

2962

Symposium

OHBM initially launched a Diversity and Gender Task Force in 2017 to address the growing need to recognize and address multiple forms of inequity with respect to gender balance and geographical representation on the Council (<https://www.ohbmbrianmappingblog.com/blog/you-spoke-we-listened-steering-a-new-course-with-respect-to-gender-equity>). Since 2017, this initiative has worked towards tackling a range of issues surrounding underrepresentation at OHBM. The task force has grown and evolved into a Diversity and Inclusivity Committee (<https://www.ohbmbrianmappingblog.com/gender--diversity-committee.html>) that meets regularly to ensure that the needs of the diverse OHBM community are adequately represented at all levels of the organization and in all of its activities. As neuroscientists, the OHBM community increasingly recognizes that some groups are historically marginalized in ways that ultimately hinder both social and scientific progress. One way to combat these issues is to expose them and openly discuss ways to address them. This second Diversity Round Table follows up on the success of our inaugural symposium in 2019 focusing on gender biases in academia (https://www.pathlms.com/ohbm/courses/12238/sections/15843/video_presentations/137799). The goal of this year's symposium is to facilitate productive discussions around ways in which we can ensure that the voices of underrepresented groups, including those in the LGBTQ community, are given a platform.

Objective

1. Familiarize the audience with research (and lack thereof) on LGBTQ individuals, with a focus on how increasing awareness around issues faced by this community can impact academic careers.
2. Engage the audience on discussion surrounding the issue of how to overcome implicit and explicit biases in science and academia.
3. Present cutting-edge neuroscience research examining the neural basis of gender identity.

Target Audience

The target audience is all OHBM members.

Presentations

LGBTQ Challenges in STEM: The Need for Data and Policy Change

LGBTQ people face both similar and unique challenges in STEM relative to other under-represented groups. Whether conscious or not, harmful stereotypes and attitudes may manifest in admissions, hiring, tenure and promotion, grants and publication decisions, ultimately hindering LGBTQ scientists' careers or driving them out of the STEM pipeline. LGBTQ people may also decide to leave their field due to non-inclusive STEM environments, resulting in lost talent. Indeed, recent studies suggest that LGBTQ people are less represented in STEM than statistically expected, reporting negative workplace experiences, and leaving STEM fields at a high rate despite strong interest. A primary mechanism to eliminate such challenges are STEM diversity policies and initiatives, which are informed by official data collections, but these often leave out sexual orientation and gender identity altogether. In this talk I will argue that, as with other under-represented groups, federal data collection and reporting, and a concerted involvement of the government, universities, funding agencies, and scientific societies, is needed to eliminate the challenges LGBTQ people face in U.S. STEM fields. I will discuss efforts by me and my colleagues to have sexual orientation and gender identity measures included in major federal data collections and reporting of U.S. college graduates, doctoral degree holders, and faculty in STEM. I will also discuss steps scientists could take to effect change in STEM data collection and diversity policies, and to promote greater inclusivity of LGBTQ people in STEM.

Presenter

Jon Freeman, New York University New York, NY
United States

How can we create a better neuroscience of trans identity?

Since 1995, when Dick Swaab's group published its seminal paper on the bed nucleus of the stria terminalis, the rate of publication of neuroscience studies focused on transgender individuals has accelerated considerably. Though this crescendoing interest has coincided with enormous technical advances in human neuroscience—including a critical movement toward reproducible, large-scale research—so far few general statements can be made about the brains of cis and trans individuals. I will present a review of the current neuroscience of trans identity and highlight the manifold contradictions and limited reliable findings in that work. This state of affairs is not simply a consequence of the intrinsic difficulties of human neuroscience research; instead, a suite of unthoughtful assumptions has made some of this research both scientifically untenable and socially questionable. In particular, I will highlight the ways in which mistaken assumptions about the relationship between gender identity and sexual orientation, oversimplification or neglect of the complex relationship between biological and social factors, and an elision of nonbinary and gender diverse individuals have held back the progress of trans research. The status of trans research in neuroscience proves that research on marginalized individuals can only maximize its scientific impact, and its social effectiveness, when it embraces the lived realities of those individuals.

Presenter

Sexual Orientation and Gender Identity Development: Insights from Thai gay men and sao praphet song

Previous literature posited that inter-individual variation in sexual orientation and gender identity among members of the same birth-assigned sex results from processes related to early-life sex differentiation of the brain. To test this hypothesis, prior studies examined whether gay, lesbian, bisexual or transgender individuals differ from comparison groups of same-birth-sex heterosexuals in terms of sex-differentiated brain features or other variables that serve as markers of differential early-life exposure to processes thought to affect brain sex differentiation. However, few studies have taken both sexual orientation and gender identity into consideration, and none have done so in a non-Western cultural context. Thus, the literature provides limited insight regarding similarities and differences in sexual orientation and gender identity development, as well as whether processes influencing these traits transcend cultural boundaries. This presentation will summarize findings from three Thai studies that address these gaps. People of diverse sexual orientations and gender identities have been visible and generally accepted in Thailand for at least several decades. Here, we compare Thai heterosexuals to gay men and sao praphet song (translated as “a second kind of woman”); sao praphet song are markedly feminine birth-assigned males who are sexually attracted to men. These groups were compared on variables relevant to brain and psychological sex differentiation: (1) handedness (N = 661), which provides a marker of differential prenatal brain development; (2) visuospatial skills (N = 671), which are thought to be related to prenatal testosterone exposure affecting brain sex differentiation; and (3) structural brain differences measured using T1-weighted and DTI images (N = 125). The presentation will detail similarities and differences between gay men and sao praphet song on these variables. Discussion will highlight how these studies inform the developmental bases of sexual orientation and gender identity, respectively, as well as the cross-cultural ubiquity of processes influencing these traits.

Presenter

Doug VanderLaan, University of Toronto Toronto, Toronto
Canada

The gap between neuroimaging of gender and gender studies of the brain: New perspectives on transgender research

Last decade the demand for transgender care has exploded and the publications predominately in the fields such as endocrinology, surgery, psychology and sociology, have surged. Due to this increased visibility of trans identity in society and in several research fields, also neuroimaging scientists started to investigate brain differences between transgender and cisgender populations. Despite small sample size of preliminary neuroimaging studies and non-consistent results, the interest to delve deeper into the topic is present, and this neuroimaging research may also soon expand to other populations, such as non-binary persons. However, while increased interest for otherwise marginalized minority groups is a sign of inclusivity, from perspectives in gender studies there is a risk to further stigmatize transgender and gender non-confirming people. For instance, transgender people suffer at elevated rates from depression and anxiety, and recently an increased prevalence of autism has been suggested in populations with gender dysphoria, but it is so far unclear how we can disentangle ‘otherness’ from sociobiological variety. How to distinguish brain effects from effects of sociological background? What does it mean to find

gender or sex differences in the brain in general, and what do we want to understand? Upon recent increased interest to investigate the brains of transgender individuals, it is the right timing to analyse the use of terminology, the purpose of the study and how to interact responsibly with the trans community.

Presenter

Jonathan Vanhoecke, Humboldt University Berlin, Berlin
Germany
