**JCLS DE&I committee session #4 (6/2/21)**

*Topic:* ***“Queer science: Temporality and futurity for queer students in STEM”***

*Speaker: Olivia Ottone, PhD Candidate, Jefferson University*

Date/Time: Wednesday, June 2nd, 2021 at 3 pm

**Introduction**

*(Sessions will be recorded for documentation purposes and will not be released to the public at any time)*

*Speaker background:*

Olivia is currently a PhD candidate in the Cell Biology and Regenerative Medicine program

Olivia’s master degree work focused on gender bias in STEM-based higher education

**Research question:** How do MIoSG (minoritized identities of sexuality and/or gender) students majoring in STEM experience and navigate campus learning environments and their disciplines/fields?

* Consideration for temporality, futurity and space in a neoliberal context
* Do STEM learning environments constitute homonormalizing environments for students with MIoSG?
* How does this impact them in the future?

How you exist vs how you are expected to exist

Pronouns are related to gender but not necessarily mutually inclusive

***Article Review***

*Queer science: Temporality and futurity for queer students in STEM*

Abstract: The sociopolitical landscape for queer people has changed dramatically in recent decades; however, progress has been both halting and uneven. While this is evident in many areas of professional and private life, this study focuses on the experiences of queer students in STEM learning environments in US colleges and universities…..These findings point to a tension between queer identities and STEM fields arising not from the nature of the fields themselves but from science’s interconnectedness with a neoliberal economy. This tension not only structures participants’ current experiences in STEM learning spaces but also flavors the way they consider their futures as queer scientists.

* Friedensen RE, Kimball E, Vaccaro A, Miller RA, Forester R. *Queer science: Temporality and futurity for queer students in STEM*. *Time & Society*. April 2021. doi:[10.1177/0961463X211008138](https://doi.org/10.1177/0961463X211008138)

**Speaker’s Presentation**

*“Queer science: Temporality and futurity for queer students in STEM”*

*Methods:*

* Electronic flyer recruitment
* Primary data collection: semi-structured interviews
* Secondary data collection: member-checking focus group
* Participants: 51 undergrad, 5 grad from 4 institutions (2 public NE, 1 private NE, 1 public SE)
* Students were asked to report their gender and sexual identity (self-reporting instead of being given a stringent list of options to choose from)
* Characteristics of participants (*N*= 61): 73.7% White, 6.6% Black, 6.6% Latinx, 3.3% Asian American, 3.3% Native American, 3.3% bi/multi-racial, 1.6% Arab/North African, 1.6% South Asian
* Disciplines (*N*= 56): 51.8% engineering, 16% computer science, 8.9% biology, 7.1% food science & nutrition, 3.6% environmental science, 3.6% marine science, 3.6% neuroscience, 1.8% kinesiology, 1.8% mathematics, 1.8% natural resources

The data may be skewed due to the large proportion of White participants vs other groups; however, this study is part of another larger study

*Findings:*

Science’s interconnectedness with a neoliberal sociopolitical economy gives rise to tension between queer identities and STEM disciplines via three broad themes:

* (re)negotiation of queer politics within academic disciplines
* Multiple bifurcation of self, time and space required to simultaneously navigate queerness and STEM (i.e. hiding who you are within STEM-based spaces)
* Development of utopian projections of the future intended to reconcile queer identity, neoliberalism and STEM

*Notable quotes from the paper:*

* “students seemed to have an impoverished sense of future possibilities”
* “STEM educators should review curricula -for individual courses as well as programs of study- to include space and time for the inclusion of critical theory and humanities”
* “STEM fields can be intentional about requiring electives centered around the humanities and should look to recruit STEM professors who can engage students in the complexity of the here and now of their identities”
* “At the end of the day, these MIoSG students are attempting to dream their way to different futures in STEM than the ones that they have been previously offered but find themselves potentially limited by a lack of alternatives due to STEM’s entanglement with neoliberal policies”

***Discussion:***

*Questions from the panel members*

Q1. Has anyone had an integrated way of learning (sciences along with the humanities)?

* Out-of-the-norm ideas resonate more with students if you find ways to make it relevant to them
* Some universities (but not all) offer courses that touch on these topics; however, there isn’t always that much flexibility in which humanities courses you can choose

Q2. Is there safe-space training at Jefferson?

* Students should have outlets to express who they are if they feel that there may be conflict with their PI or professor
* There are some courses but not enough

*Questions from the attendees*

Q1. Is biosex the appropriate term when talking about anatomy and physiology?

* Sex = biological vs. gender = social construct
* Establish that these are two distinct and separate meanings to these terms to reduce the confusion
* What is a better way of teaching this from an instructor’s perspective?
* Prefacing lectures that differentiate sex vs gender

Q2. What would it look like to engage these issues in a STEM classroom?

* When applying for programs, what do you do when there is no option to choose from that applies to your identity?

Q3. How do we hold faculty accountable in order to make students feel safer in the classroom in the short-term?

* Its up to every to student to have that conversation one-on-one with their professors; many may be unaware that they’ve offended you
* Having basic training sessions for teachers to make them aware of these issues; however, what good is training if there are no consequences?

**Quotes**

“We need lots of education both at the level of the professors and the students per say…….I think that cultivating that culture is really important.”