Diversity 101
for the STEM Disciplines

UCDAVIS
GRADUATE STUDIES
Grad Student Orientation
Sept 13, 2016

Steve Lee, PhD
Graduate Diversity Officer
for the STEM Disciplines
Roadblocks & Roadsigns Toward Diversity in the STEM Disciplines

Steve Lee - Graduate Diversity Officer for the STEM Disciplines

Graduate Student Orientation
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Challenges toward increasing diversity

The *deficit model* focuses on weaknesses of minorities.

Direction towards increasing diversity

*Diversity 3.0* seeks to enhance excellence through diversity.
A major road block is the focus on deficits

- Consider a quote about 1st-generation students
  - Quote reveals the deficit model and possible unconscious bias

- In contrast, Nicole Stephens’ research provides a balanced view
  - seeking interdependence vs independence

- What happens if we focus only on deficits?
  - for faculty, administrators, staff?
  - for students?
Do we have an unconscious bias?

- Science faculty rated a student (male or female) for a lab manager.
Do we have an unconscious bias?

- Science faculty rated a student (male or female) for a lab manager.

<table>
<thead>
<tr>
<th>Competence rating</th>
<th>male student</th>
<th>female student</th>
</tr>
</thead>
<tbody>
<tr>
<td>male faculty</td>
<td>4.01</td>
<td>3.33</td>
</tr>
<tr>
<td>female faculty</td>
<td>4.1</td>
<td>3.32</td>
</tr>
</tbody>
</table>

We all have unconscious biases
Why do we have unconscious biases?

Google: Making the Unconscious Conscious
An alternative is to apply Diversity 3.0

Marc Nivet from Assoc of American Medical Colleges (2011)

**Diversity 1.0**
- diversity *opposes* excellence; deficit model
- Civil Rights era to current
- can lead to lowering standards

**Diversity 2.0**
- diversity is *equal, but separate* from excellence
- separate offices for diversity and academic rigor
- can lead to setting quotas

**Diversity 3.0**
- diversity *enhances* excellence
- a study with medical schools showed that holistic review led to improving diversity and excellence
Diversity 3.0 – diversity promotes productive work


- Page claims that:
  - Diverse perspectives and tools enable people to find more and better solutions and contribute to overall productivity
  - Diversity is particularly important when problems are complex

- Support:
  - game show *Who Wants to be a Millionaire*
  - toolbox analogy
What can I do?
Suggested Action Items:

Graduate Diversity Network (GDN)

- Join the GDN LinkedIn Group

- Attend the GDN Journal Club meeting
  - Wed, Sept 21 at 3:30-4:30pm
  - Student Community Center (SCC) in Room D (2nd floor)
What can I do?
Suggested Action Items:

Join graduate student organizations

- ADSE: Alliance for Diversity in Science & Engineering
  - https://www.facebook.com/ADSEUCD/

- ESTEME: Equity in STEM and Entrepreneurship
  - http://biotech.ucdavis.edu/ESTEME/


References

- Jo Handelsman, et al
  - “Science faculty’s subtle gender biases favor male students” *PNAS*, 2012, p 16474.

- Marc Nivet

- Scott Page
  - www.youtube.com/watch?v=lt9UeknKwZw

- Scientific American, “How Diversity Makes Us Smarter”
  - Sept 16, 2014, Katherine W. Phillips
The **deficit model** focuses on weaknesses and neglects the value of minorities.

**Diversity 3.0** seeks excellence through diversity.
What’s the Destination?