Healing Otherness: Neuroscience, Bias, and Messaging

Tomorrow’s Detroit and Detroit’s Tomorrow: The Economics of Race Conference 2016

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PRESENTER:
John A. Powell, Director, Haas Institute

AUTHORIAL SUPPORT:
Alyson Reimer, Haas Institute
The problem of “Othering” is the problem of the 21st century.
How far have we come?
To achieve transformative change, we must create an environment in which everyone belongs. Belonging is the greatest gift society can give us.
Othering,” defined...

We define othering as a set of processes, structures, and dynamics that engender marginality and persistent inequality across any of the full range of human differences. Othering and marginality can occur on a group basis or at the individual level.
Dimensions of othering

Dimensions include but are not limited to, sex, religion, race, ethnicity, socioeconomic status, disability, sexual orientation, and skin tone.
We engage in othering for many reasons, both intentionally and unintentionally. Today, we will focus on some of the unintentional reasons for othering including, but not limited to:

- Fear & anxiety
- Categorizing
- Stereotyping
- Implicit bias
- In-group preference
- Racial anxiety
- Confirmation bias
- Stereotype threat

Mind Science
Dominant hierarchy of organizing our sense of self:

What happens when the hierarchy is reversed?
As diversity grows, so does anxiety...

Increase in diversity change

Fear & anger othering

Bridging Leadership Narrative Structure Culture

Empathy, belonging, & inclusion

Breaking

Increase in anxiety
Neurological origins of fear and anxiety.

- Our limbic system categorizes what we perceive.
  - The limbic system is a very old part of the brain; it can be found in animals.
  - It is also very fast.
- One part of the limbic system, the amygdala, is responsible for strong emotional responses (i.e., fight or flight)

The role of the unconscious mind

The human brain processes 11 million bytes of information per second

• Consciously aware of any 40 of these, at best
• Only 2% of emotional cognition is available to us consciously
• Messages can be framed to speak to our unconscious
• The process of Othering occurs in our unconscious network: this can lead to racial, ethnic, or religious bias

See David Brooks, The Social Animal (2011)
The role of the unconscious mind, continued...

The subconscious mind uses three processes to make sense of the millions of bits of information that we perceive:

1. Sorting into categories
2. Creating associations between things
3. Filling in the gaps when we only receive partial information
Schemas

These three processes together add up to schemas – the “frames” through which our brains help us understand and navigate the world.

Schemas help us organize information into broader categories

- Meanings associated with those category are then activated

Schemas are social. They exist in our environment, language, and metaphors

- The unconscious is not just an individual or internal phenomenon
Our brains in action: creating associations.

Please state the *colour of the text*

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<tr>
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Which is darker: Square A or Square B?

The Checker Shadow Illusion
Our brains in action: filling in the gaps.

What shapes do you see?
Our brains in action: filling in the gaps, continued...

Our subconscious fills in the lines for us, to form a shape we are familiar with.
Face Priming
Face Priming (Slow Motion)
Priming influences what we see

Levels of Degradation

Frame 15
Awareness Test
Implicit bias and society

- There is a strong connection between the individual and society
- Bias is social rather than individual.
- Role of material conditions as primes.
Confirmation Bias:
We judge behavior differently depending upon the stereotypes or negative associations.
Along with or instead of negative associations toward an out-group, most people tend to hold favorable attitudes toward in-groups. “In-group” preference explains how people can legitimately feel “non-racist” or free from gender stereotypes.

In-Group members: “more human”

Paternalistic stereotype
low status, not competitive

Contemptuous stereotype
low status, competitive

Admiration
high status, not competitive

Envious stereotype
high status, competitive
Categorizing People:
- Schemas about people are referred to as “stereotypes” and we use them all the time.

Stereotypes:
- traits associated with a particular group.

Attitudes:
- warmth or coldness toward a particular group.
What is stereotype threat?

- When people are aware of a negative stereotype about their group in a domain in which they are identified, their attention is split between the activity at hand and concerns about being seen stereotypically.

- Stereotype threat diverts cognitive resources that could otherwise be used to maximize task performance.
Effects and examples of stereotype threat.

**Effects:**
- Elevated levels of anxiety (cardiac functioning)
- Higher levels of stress (cortisol)
- Lower working memory
- Worse performance

**Examples:**
- Women and math
- Blacks on standardized tests
- Working class and verbal tests
- “White men can’t jump”
- “White people are prejudiced”
- People with disabilities
- People with mental illness
- Age
Impact of implicit bias and stereotype threat.

Implicit bias can leak into everyday interactions.
- Stereotype threat, “the threat of being viewed through the lens of a negative stereotype, or the fear of doing something that would inadvertently confirm that stereotype” (Claude Steele)
- “Micro-aggressions” and subtle body language affect interpersonal interactions
- Cumulatively, these interactions reinforce or exacerbate already existing inequalities within and across systems
- A recent survey found that white college students bought into the trope that Asian Americans are more competent, and blacks and Latinos need to “work harder.” (Park et al. 2015)
Stereotypes & biases: cognitively, we cannot avoid them!

- Intelligence is associational and emotional: we cannot live without schemas
- Having biases and stereotypes, however, do not make us racist: it makes us human
- Working for equity and justice requires engaging at three levels
  - Structural
  - The conscious
  - The unconscious
Racial anxiety

Racial/other anxiety: The other implicates who we are and our well-being.
To recap... 

- Bias affects what we see, how we behave, and how we react to certain stimuli.
- Bias affects the structures we create and inhabit.
- Combining uncertain evidence with widespread beliefs underwritten by cultural stereotypes leads to unconscious reasoning or implicit bias.
- Racial anxiety leads to avoidance of interracial interaction.
- Racial anxiety inhibits solidarity between races.
- Stereotype threat can result in the unintentional self-perpetuation of existing stereotypes.
- Stereotype threat depletes cognitive resources that could otherwise be used to maximize task performance, resulting in, among other things, disparities in academic achievement.
Direct Intergroup Contact: Direct interaction between members of different racial and ethnic groups can alleviate intergroup anxiety, reduce bias, and promote more positive intergroup attitudes and expectations for future contact.
Indirect forms of Intergroup Contact: When people observe positive interactions between members of their own group and another group (vicarious contact), they report lower bias and anxiety, and more positive inter-group attitudes.
Stereotype threat interventions.

- Social belonging interventions
- Wise criticism
- Behavioral scripts
- Growth mindset
- Value-Affirmation
- Removing triggers
As diversity grows, so does anxiety...

- Increase in diversity change
- Increase in anxiety
- Leadership, Narrative, Structure, Culture
- Bridging, Lea
- Fear & anger, othering
- Empathy, belonging, & inclusion
Closing thoughts & remarks
Read *Racing to Justice* today!

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