

If NSF/ EHR adopted critical race theory (CRT) as one of several lenses from which to approach broadening participation (BP) then what acts/ actions become possibilities?

The Similarity of Gender and Race

Fundamental processes that situate gender as a structural constraint or affordance are the same for race:

- Physical attributes are perceived
- Social meanings that denote worth are activated
- Actions, including socialization, based on social meanings ensue

Conceptualization of Race

Race is **not** a genetically validated phenomenon. It is a construction, with traceable historical origins, that ascribes meanings to aspects of human physiognomy. These racial meanings serve varied sociopolitical aims that impact the lived experiences, hence worldviews, of groups and their members.

Select CRT Tenets

- CRT centers race consciousness and racism
- CRT challenges the notions of colorblindness and meritocracy
- CRT insists upon historical and contextual analyses
- CRT situates the experiential knowledge of people of color and their communities as valid and central

If the primary premise of CRT is accepted as appropriate and valid and race matters as a consequence of ever-present racism then in what ways does it matter in STEM?

A Slice of "Race Emphasis" STEM Education Research

Individual--the locus of understanding underrepresentation in STEM and the site for addressing it reside within a person

- Deficit model dominates
- Capital model exists

A Slice of "Race Emphasis" STEM Education Research

Structural— the locus of understanding underrepresentation in STEM and the site for addressing it reside in systems that are informally and formally institutionalized

Academic and Social Integration

Individual

Psychological

- Stereotype (identity) Threat
- ✦ Affirmation
 - self
 - values
- Social Belonging

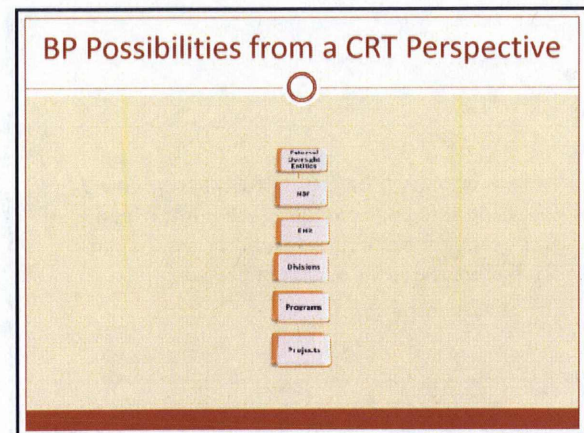
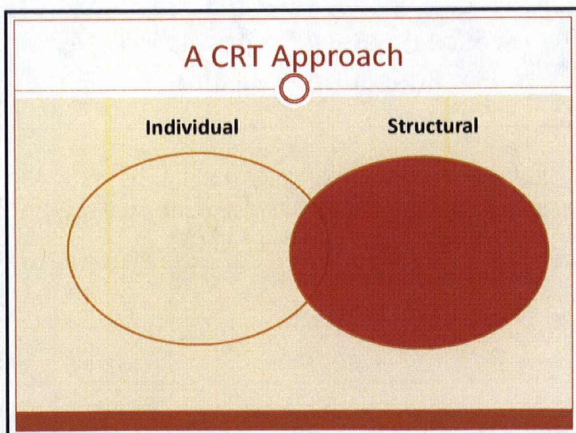
Academic and Social Integration

Individual	Structural
<u>Psychological</u>	<u>Climate</u>
○ Stereotype (identity) Threat	○ Environment
✦ Affirmation	○ Faculty & Peers
○ Self/ values	<u>Access & Optimization</u>
○ Group	○ Capital Development
○ Social Belonging	

Academic and Social Integration

Individual	Structural
<u>Psychological</u>	<u>Climate</u>
○ Stereotype (identity) Threat	○ Environment
✦ Affirmation	○ Faculty
○ Self/ values	<u>Access & Optimization</u>
○ Group	○ Capital Development
○ Social Belonging	

Note: An orange arrow points from "Affirmation" in the Individual column to "Faculty" in the Structural column.



Discussion Prompts for 5-2-2012 Presentation

Consider each fictitious scenario developed by American Institutes for Research (AIR). What actions might be taken if the responses to the following questions included CRT as an informative lens?

- (1) What emphases might be added in the program description if CRT informed the development of the program?
- (2) What would be prominently featured in the program's solicitation?
- (3) What elements would be heavily considered in the review process in the selection of programs for funding?
- (4) What data would be included in the program's data collection in order to examine and evaluate program impact upon the field? What data would projects be expected to gather from project implementation and what data would projects be expected to report?

Scenario 1

The Advancing the STEM Pipeline (Pathway) Program is focused on improving the persistence of URMs, women, and students with disabilities in undergraduate STEM degree programs, with the intent of building and maintaining the STEM academic and workforce pipeline (pathway). Data demonstrate that many students leave STEM fields after their freshmen or sophomore years to pursue degrees in non-STEM fields of study. This program will award 5-year projects to individual colleges or universities to fund activities geared toward (1) recruiting URMs, women, and students with disabilities into undergraduate STEM degree programs; (2) providing academic and social support and assistance to URMs, women, and students with disabilities who are pursuing STEM degrees; (3) developing more interactive STEM faculty-student relationships; and (4) creating more welcoming and diverse environments for URMs, women, and students with disabilities in STEM academic departments.

Scenario 2

The Investing in STEM Education Program seeks to innovate, identify, and invest in new approaches to fostering K-12 students' interests and skills in STEM in order to help high-needs school districts build educational pipelines (pathways) for future STEM workforce needs. Preparing students for future careers in the STEM workforce requires effective STEM education from kindergarten through 12th grade. Investing in STEM Education provides 2- to 5- year grants for teachers in high-needs schools to implement new approaches to STEM Education in K-12 classes. Projects should include a classroom component and integrate an innovative STEM school curriculum, but after-school, summer, virtual, and extra-curricular components are encouraged.

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