CONCEPTUAL AND THEORETICAL FRAMEWORKS IN SCIENCE EDUCATION RESEARCH
**THEORIES**

- They consist of a set of concepts, shared ideas that capture regularities in events, that seeks to explain how and why. They are broad enough in scope to apply to numerous situations under a myriad of circumstances.

**CONCEPTUAL FRAMEWORKS**

- They consist of various concepts that originate from different theories. These concepts are used to develop understandings of the unfamiliar and reveal new insights about the unfamiliar.
CONCEPTUAL FRAMEWORKS IN ACTION

- Research Questions
- Methods
  + What data are collected
  + How data are analyzed
- Findings
  + How they are framed and explained
- Implications
  + What is highlighted as important
Individual

Contexts in close proximity to the individual
Individual

context

context

context
Human development is mediated by culture. The development of individuals is embedded in the culture in which they live.

Human development is influenced by power structures and subsequent relations that exist within historical and contemporary contexts in which development occurs.
Socio-Cultural Perspectives

- Communities of Practice
- Figured Worlds
- Funds of Knowledge
- Third Space
- Culture (cultural difference, cultural reproduction)
- Social constructivism
- Activity Theory
Mediating Artifact

Subject

Rules

Community

Object

Division of Labor

Outcome

(Engeström et al., 1999)
CRITICAL PERSPECTIVES

- Social Reproduction
- Cultural Reproduction
- Colonialism
- Hegemony
- Critical Social Theory
- Critical Feminist Theory
- Critical Race Theory
CRITICAL RACE THEORY TENETS

- Racism is normal in America.
- Racism has advantaged some groups over others (whiteness as property, interest convergence).
- The existence and attainability of objectivity, neutrality, color-blindness, and meritocracy are questionable at best and are vehicles to maintain an oppressive status quo at worst.
- Historical and contextual analyses of phenomena are imperative.
- The experiential knowledge of people of color and their communities of origin are central to analysis of phenomena.
Racism is a combination of racial prejudice (racial biases) and power that is used to dominate and oppress. Prejudice and power in concert are employed in maintaining and advancing a person or a group’s dominance. Racism functions at the level of individuals (individual racism) and institutions (institutional racism.) (Bonilla-Silva, 1997)
HISTORICAL AND CONTEXTUAL ANALYSES

Cultural-Historical  Ontogeny  Microgenesis

(Cole, 1996)
WHITENESS AS PROPERTY

- The right to possess
- The right to use
  - Power to decide who is included and excluded
- The right to dispossess
  - Power to transfer privileges to others

(Harris, 1995)
WHAT CONCEPTUAL OR THEORETICAL FRAMEWORKS ARE MOST SUITED FOR YOUR WORK?


