

How are beliefs about humans' place in nature associated with students' conceptions of marine ecosystems?

#2400411: *Cognitive Foundations of Environmental Science Education*

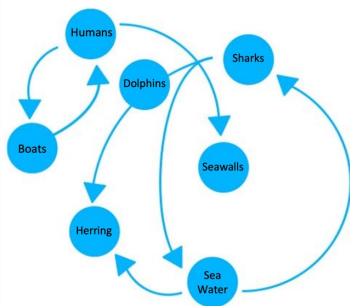
Background

Human Exceptionalism

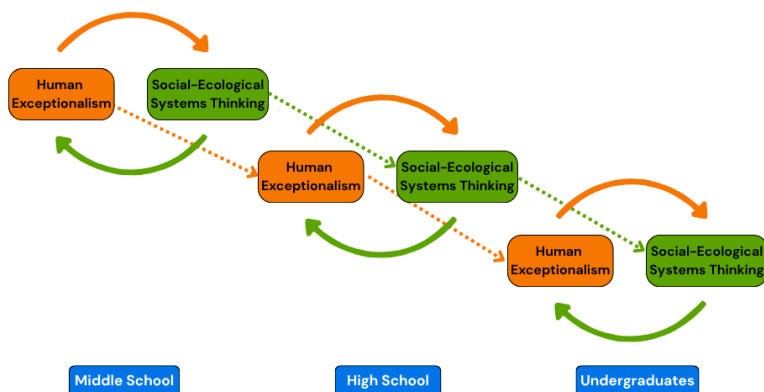
Humans are superior to nature



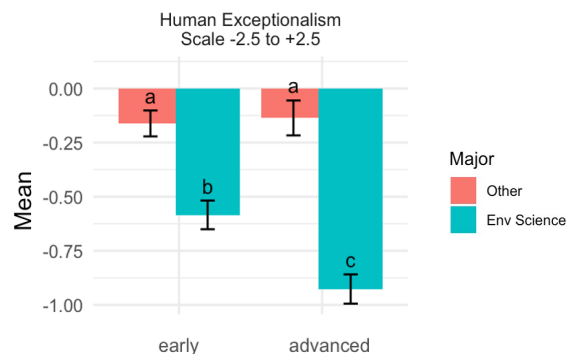
Social-Ecological Systems Thinking



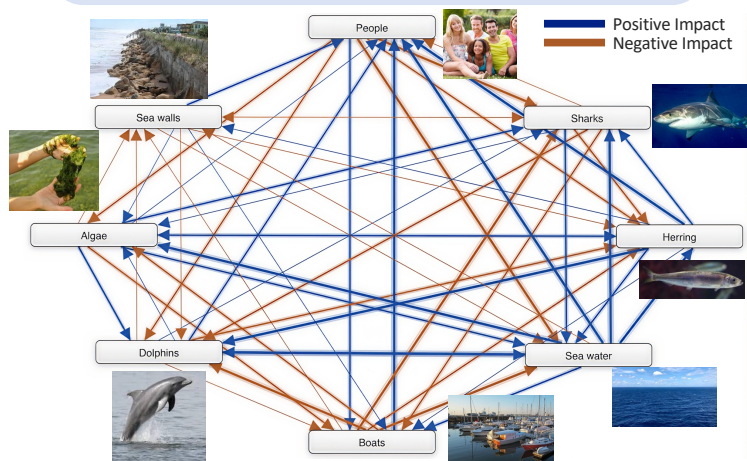
How do human exceptionalism and social-ecological thinking emerge and differ across levels of education?



Preliminary Findings



Environmental Science majors report **less human exceptionalism**. But their **social-ecological systems thinking doesn't structurally differ** from others.



Methods

Mixed-Methods

Developmental

- Collected data from 500+ undergraduate students
 - 2 (Env. Sci Major/Others) x 2 (Early/Advanced)
- Collected data from 8 schools, ~500 students
 - 2 (Middle/High School) x 2 (Inland/Coastal)

Challenge Area

Data & Recruitment

- Data validity and quality in Middle & High school samples
- High attrition in undergraduate longitudinal study with one-year follow up
- Assessing systems thinking



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