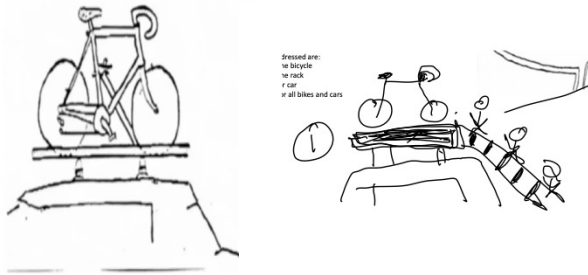


What are the neurocognitive mechanisms underlying design fixation?

#2100137: Collaborative Research: Learning Preferences and Domain Differences in Design Fixation
#2100138: Collaborative Research: Learning Preferences and Domain Differences in Design Fixation

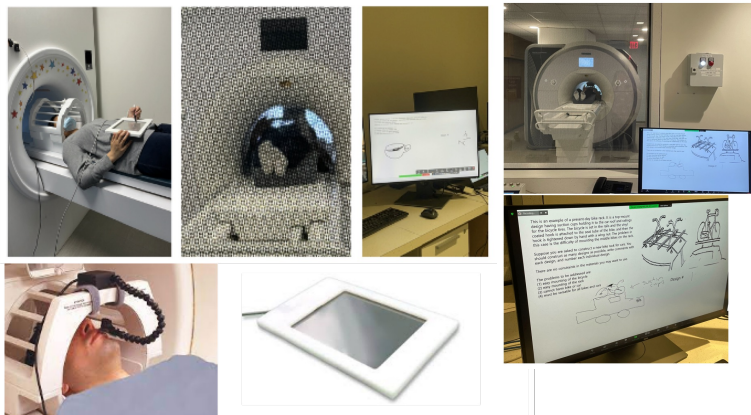
Background



Example Design

Fixated response

Mechanical engineering and design students differ in their susceptibility to **fixation to pictorial examples** during design problem solving.



What is Not Yet Known

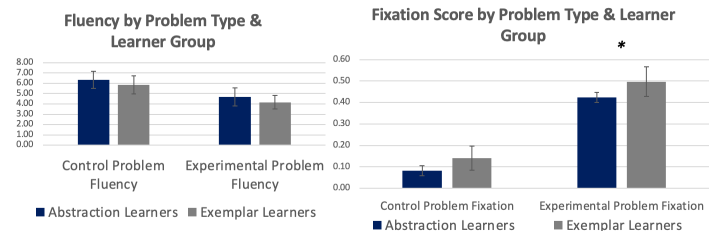


Abstraction Learners



Exemplar Learners

Do **learning preferences** underlie differences in **design fixation**?



Methods

Learning preferences

fMRI

- We are collecting **behavioral** and **brain imaging** data from **freshmen + senior mechanical engineering & product design** students during **learning & design tasks**.
- Segment & analyze **verbal protocols** during design & **map on to brain imaging data**.

Challenge Area

Postdoc Recruitment

- Hiring staff with relevant expertise
- Recruitment of specific student groups
- Very rich dataset; prioritization of analyses



Evangelia G. Chrysikou, John Gero, Dong Ho Kim, Julie Milovanovich

Preliminary findings: <http://tiny.cc/hut2yz>

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