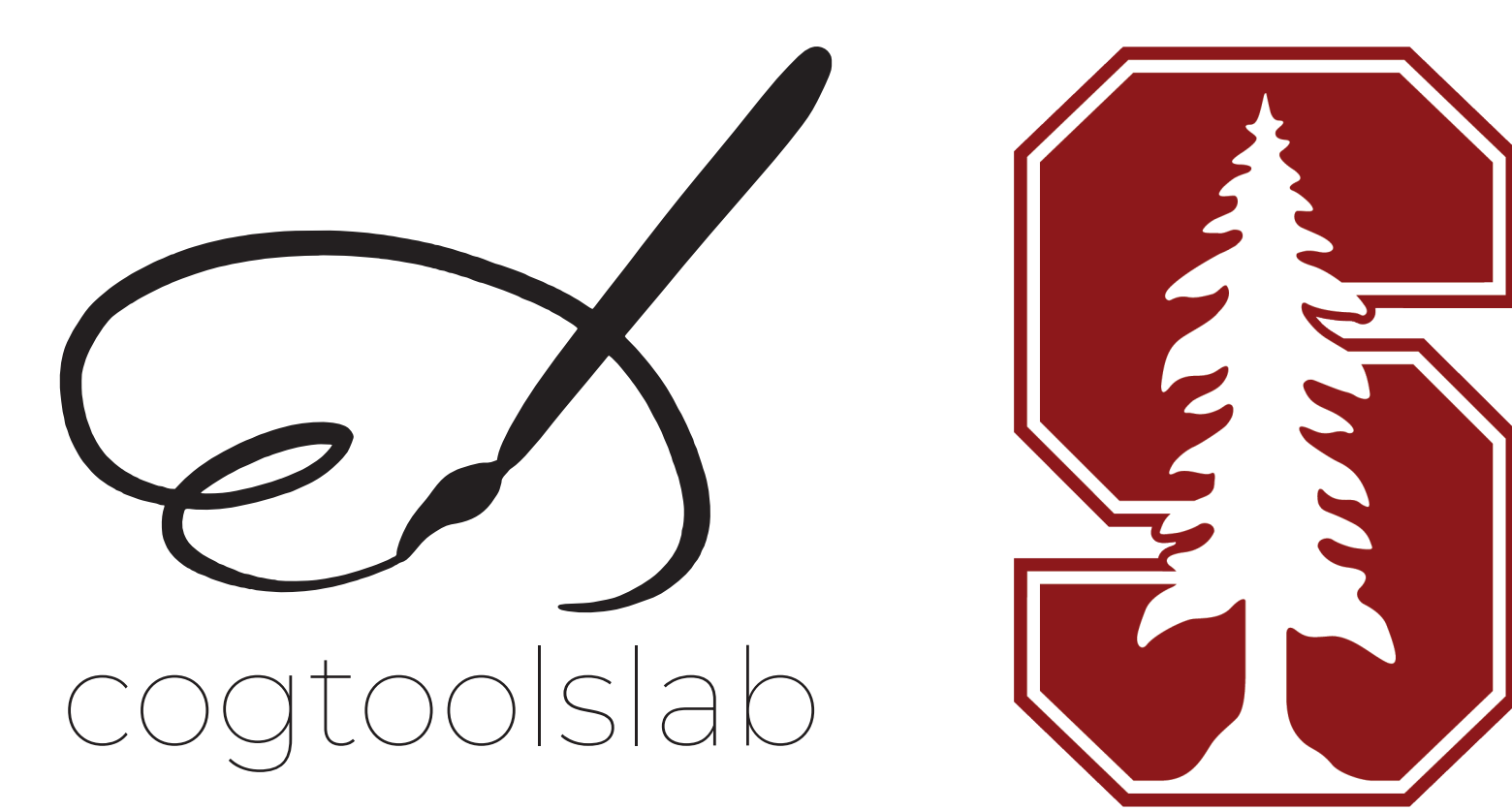


Consequences of prior experience on visual problem solving



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We rarely face the same problem twice, but many problems are similar.

Motivation

1. What patterns do we notice across similar problems?
2. How does that change how we approach new problems?

Methods

Stimuli

1. make shortcut

shortcut

2. generate tangram with shortcut

less efficient: (6 pieces)

more efficient: (4 pieces)

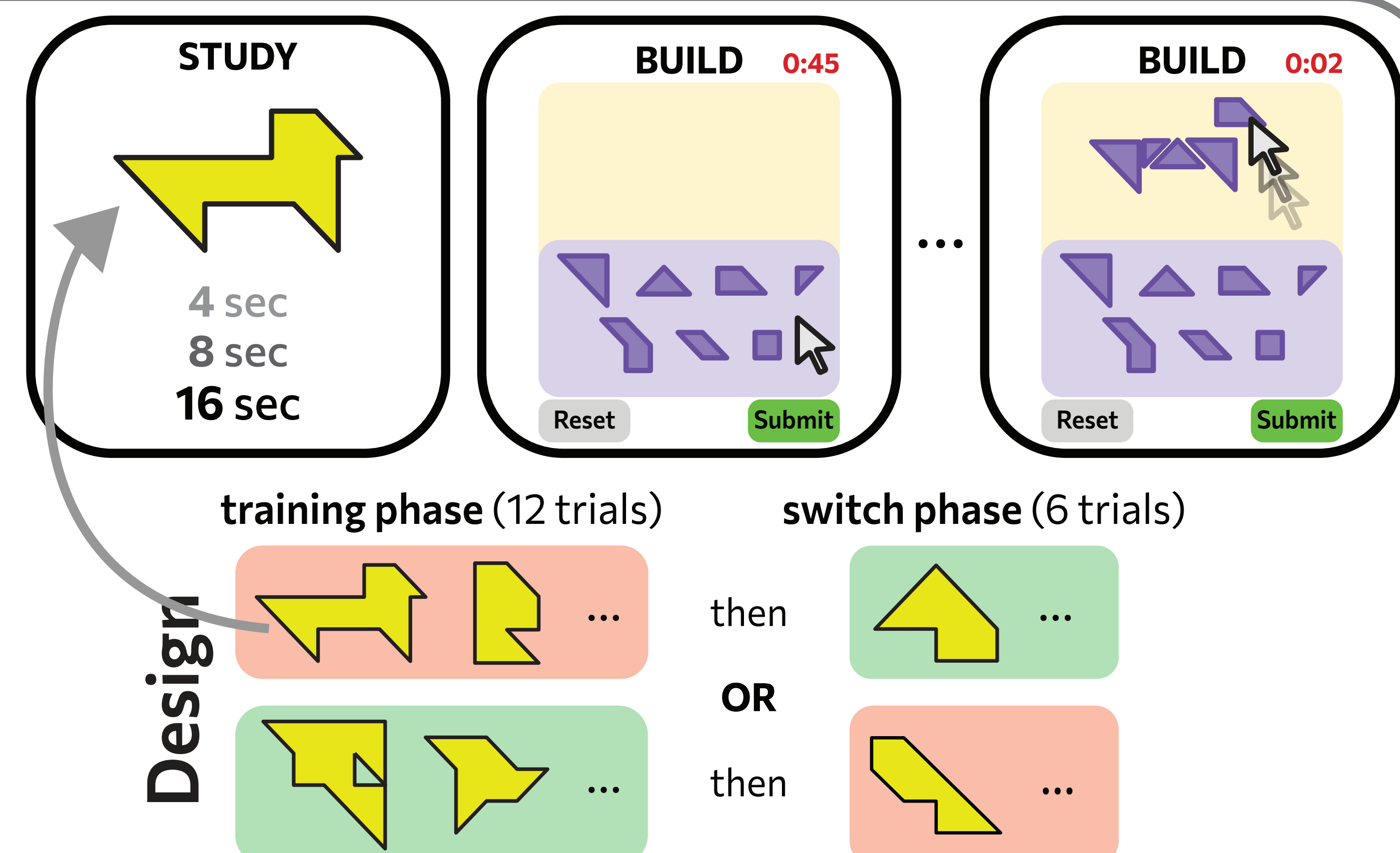
same tangram, multiple solutions

3. repeat (x12)

they all share a pattern!

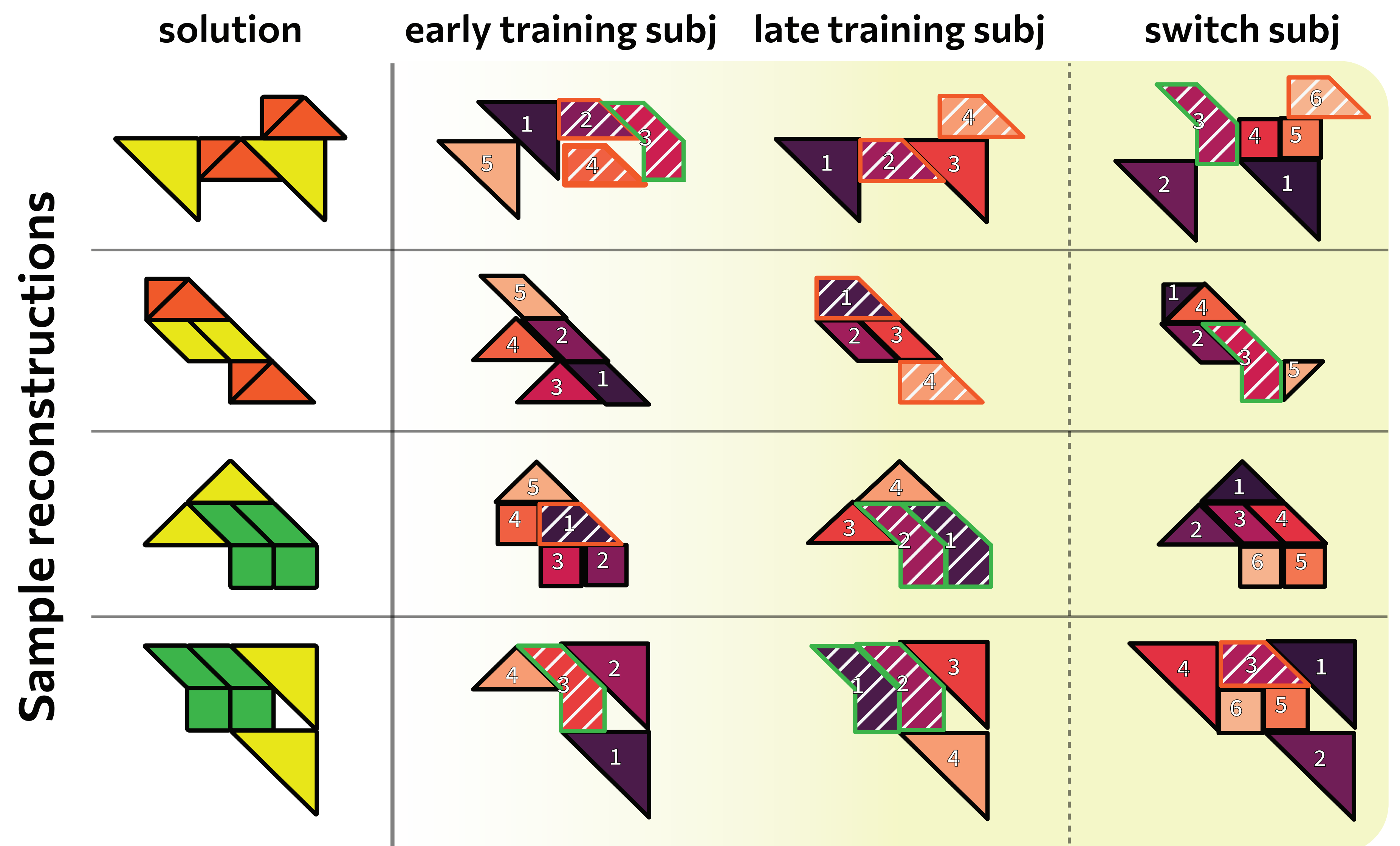
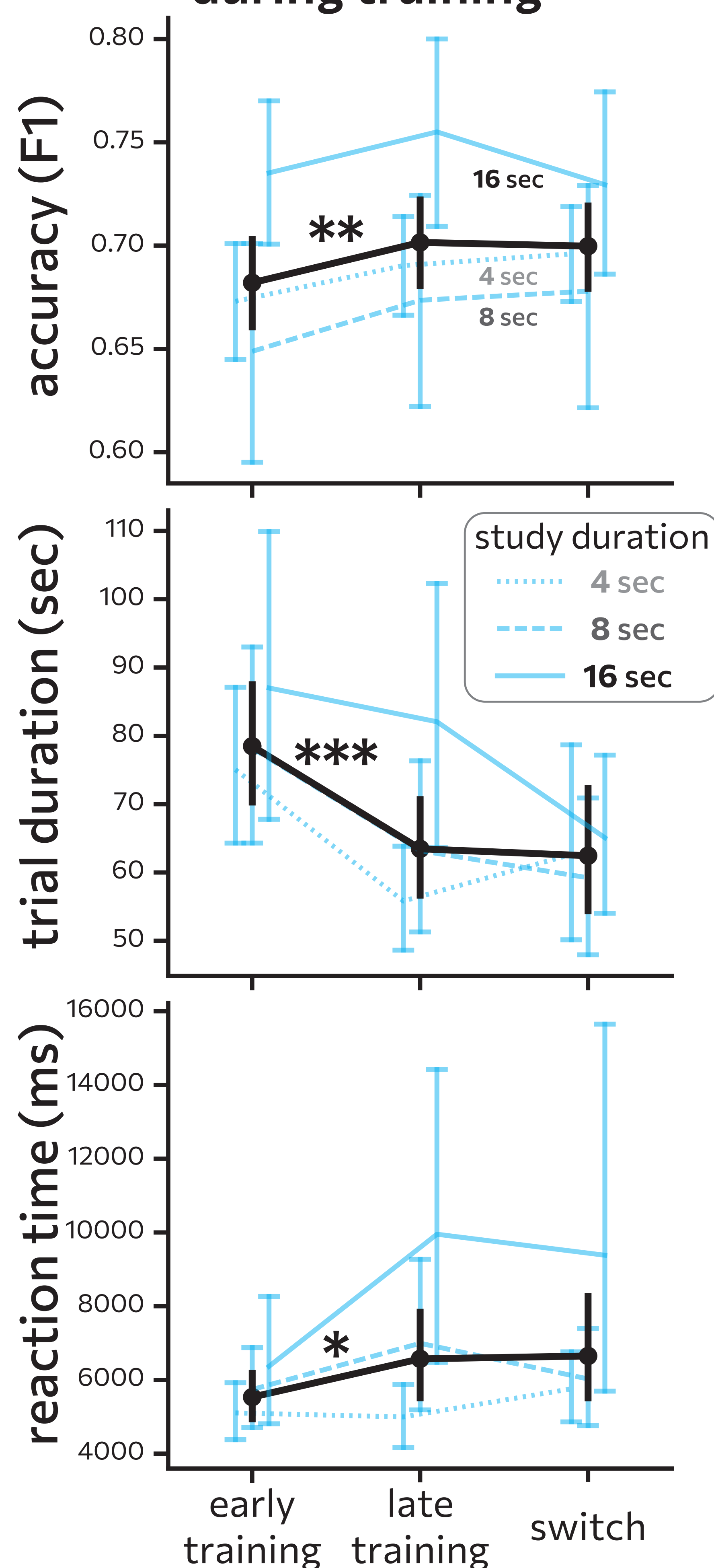
4. do again with different shortcut

Task

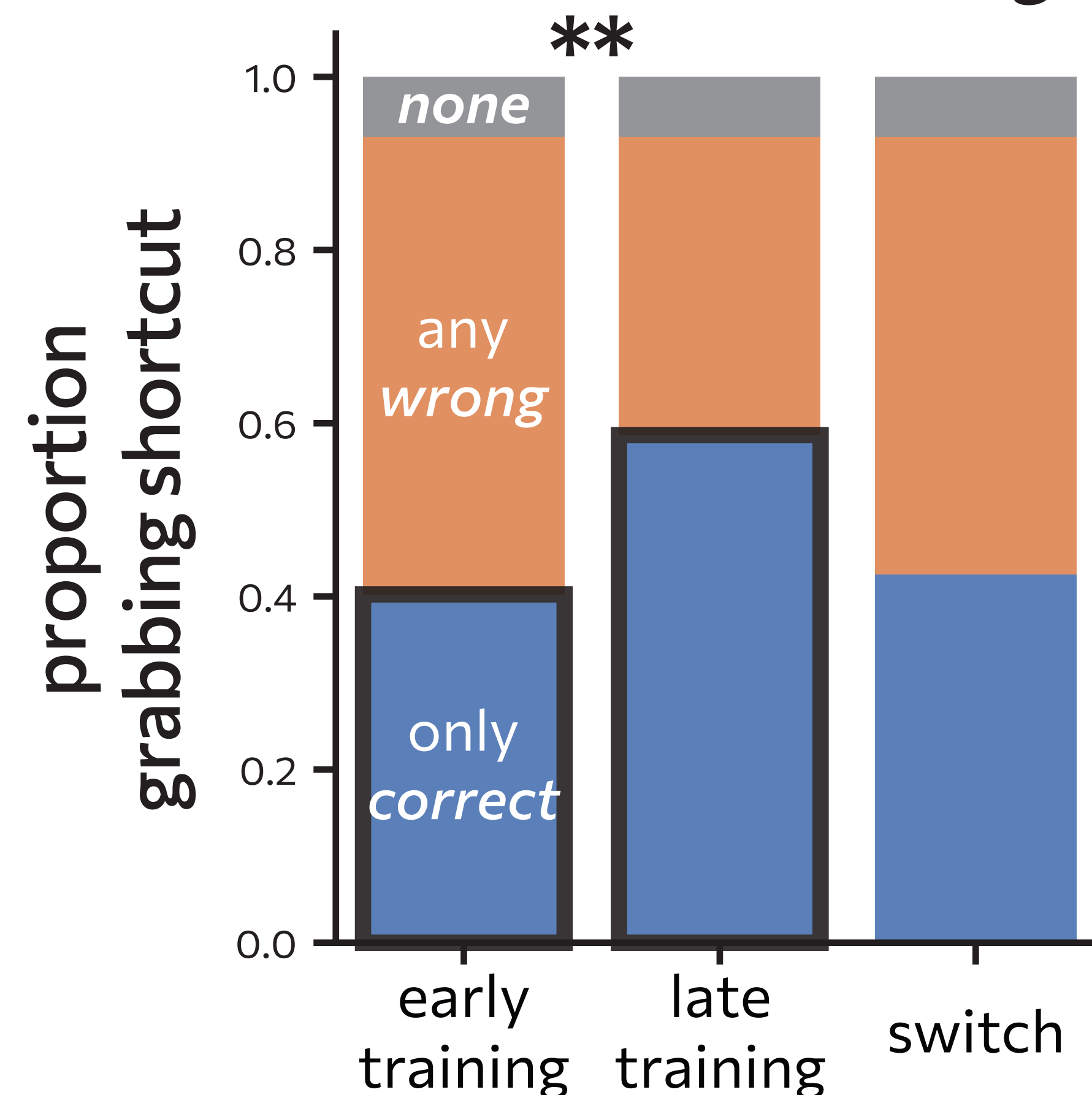


Results N=87

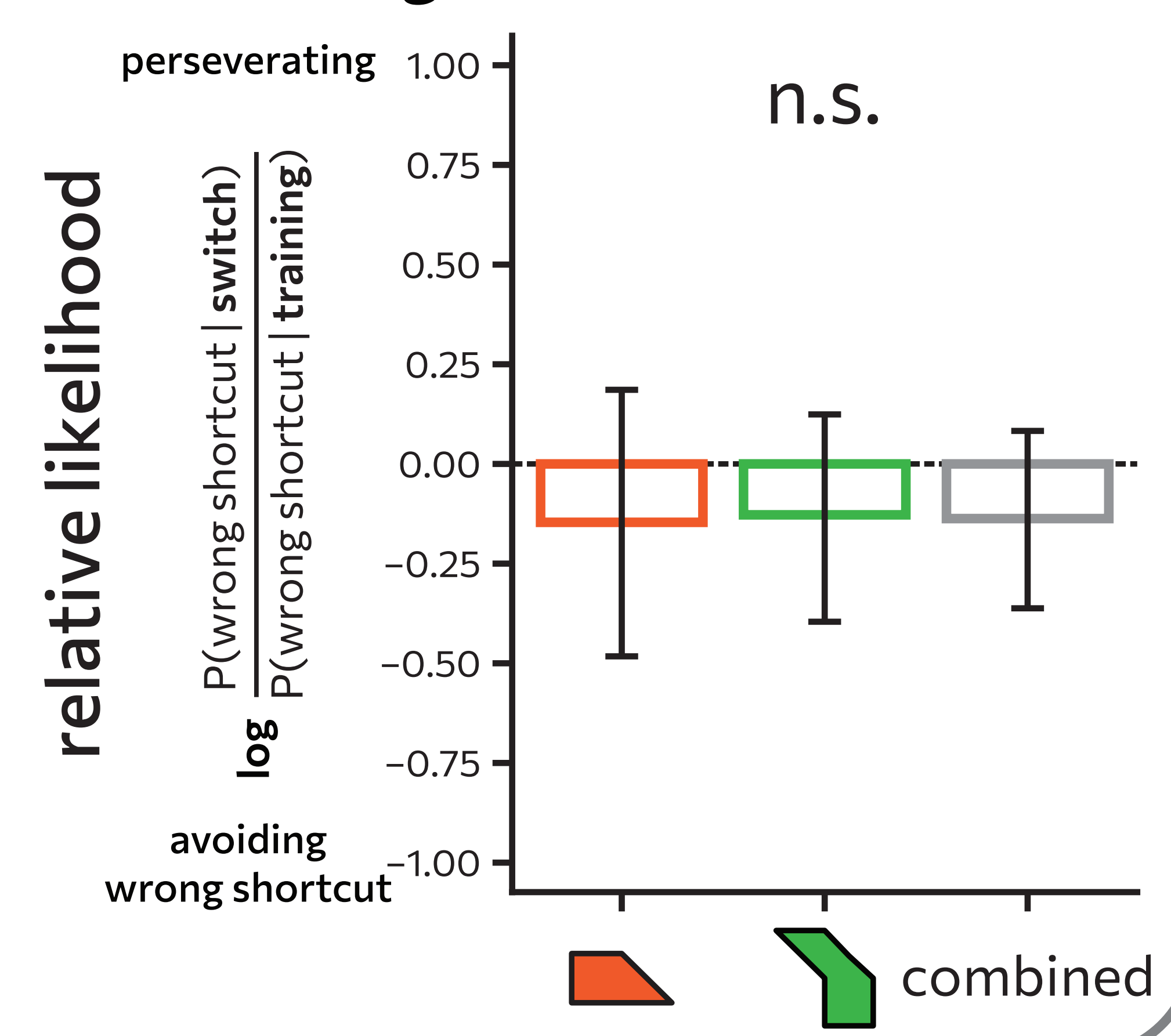
Subjects improve speed & accuracy during training



Subjects grab correct shortcut more often later in training



No evidence of perseveration on wrong shortcut in switch



Discussion

People can infer efficient procedures to recreate novel shapes.
 How, when and why does experience impact performance on these tasks?