The Interaction Between Task Switching and Priming

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**Introduction**

Can we reduce task switching costs through priming?

Switch Task: “Report the larger shape for ‘G’ and the smaller shape for ‘L’.”

**Methods**

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<tr>
<th>Switch task</th>
<th>Target Priming</th>
<th>Distractor Priming</th>
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**Can priming reduce switch costs?**

Using the keyboard, complete the switch task

1. Square
2. Triangle
3. Circle

**Can we reproduce the switch costs?**

N=36

- Task Switching (Acc)
- Task Switching (ms)

**Yes, task switching is costly**

Did priming reduce switch costs?

**Target priming increased switch costs**

Distractor priming reduced switch costs

**What’s the source of this priming effect?**

Drag the mouse to the solid shaped side for ‘L’ and the dotted shaped side for ‘G’

“To get to the next trial, drag the mouse to the center of the screen.”

**Do we see the same switch costs?**

Can we reproduce the priming effects?

**Discussion**

In the context of task switch,
1) **Target priming increases** the switch cost$^{1,2}$ while distractor priming **reduces** switch cost$^{3,4}$.
2) These effects take place **upstream** of motor planning/execution$^2$.

**References:**