$2 \times 2$ study design


## Main effect of $A$ vs. $B$



Compared to


## Main effect of 1 vs. 2



## Simple effect of 1 vs. 2 , within A



Compared to



## Simple effect of 1 vs. 2, within B



Compared to


## Simple effect of A vs. B, within 1



Compared to


## Simple effect of A vs. B, within 2



Compared to

## Interaction: seeing if the simple effect of 1 vs . 2 is different between $A$ and $B$



Compared to


## Interaction: seeing if the simple effect of A vs.

 $B$ is different between 1 and 2
minus


Compared to
minus


