

Implicit and explicit adaptation just do not add up

$$\text{adaptation} = \text{implicit} + \text{explicit}$$

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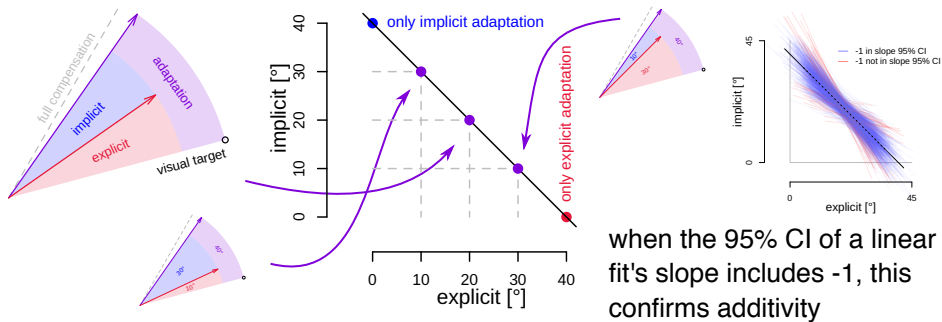
Additivity of implicit and explicit adaptation

The additivity assumption is that total adaptation is the simple sum of explicit and implicit adaptation. We could forego measuring implicit adaptation, since:

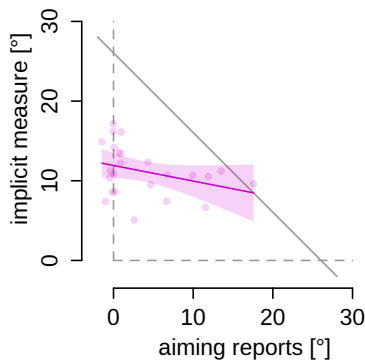
$$\text{implicit} \sim \text{adaptation} - \text{explicit}$$

This predicts a linear relationship with slope -1

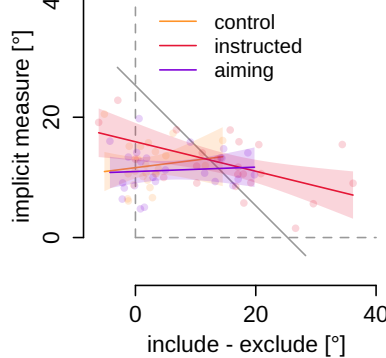
simulations based on an additive process:



Independent Measures

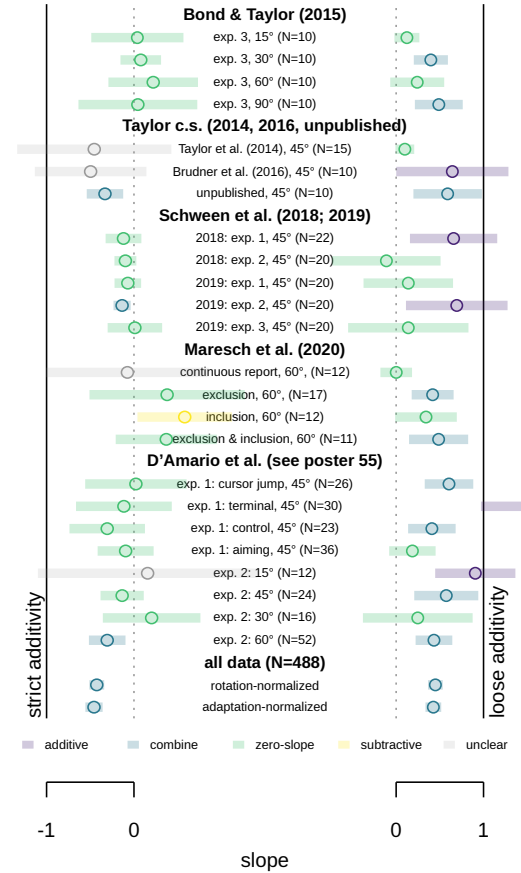


Dependent Measures



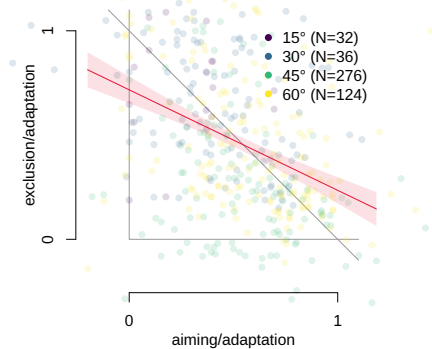
The data does not show the predicted slopes: *additivity is not confirmed.*

Previous data

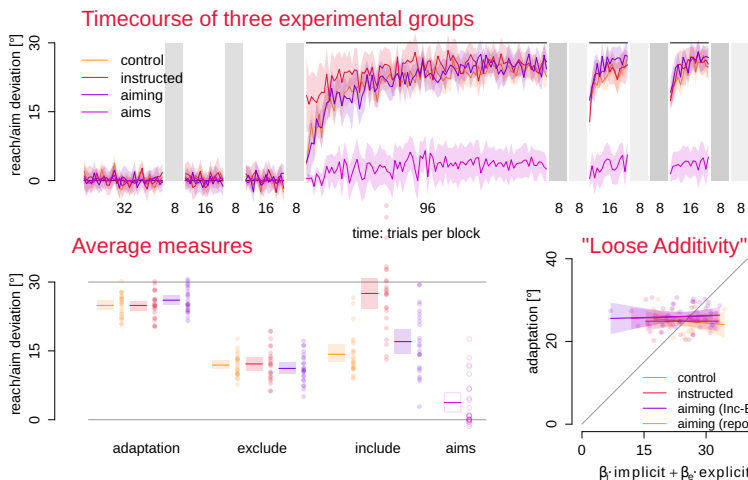


None of the other data sets have the slope predicted by strict additivity.

Global pattern



The noise in these measures makes any prediction unreliable.



Measures of implicit and explicit adaptation do not linearly add