

How Prior Expectations Influence Older Adults' Perception and Action during Object Interaction

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Supplementary Materials

Old and young participants' lifts across the final medium lift, the first large lift, and the first small lift were compared with separate repeated-measures ANOVAs for each group and each dependent variable.

In terms of grip force rate (Fig. S1A), for the young group, we observed a significant main effect of size [$F(2,36) = 10.92, p < 0.001$]. Post-hoc paired-sample t -tests demonstrated that this main effect was driven entirely by the transition from large to small [$t(18) = 4.08, p < 0.001$]; no difference between the forces used in the transition from medium to large was observed [$t(18) = 1.47, p = 0.16$]. For the old group, there was no main effect of size [$F(2,34) = 0.41, p = 0.67$].

In terms of load force rate (Fig. S1B), we observed a similar pattern of data with the young group once again showing a main effect of size [$F(2,36) = 5.63, p = 0.007$] — an effect driven by the transition from large to small [$t(18) = 3.28, p = 0.004$] with no difference between the forces used from the transition from medium to large [$t(18) = 0.19, p = 0.84$]. As with grip force rate, there was no main effect of size observed for the old group [$F(2,34) = 0.12, p = 0.88$].

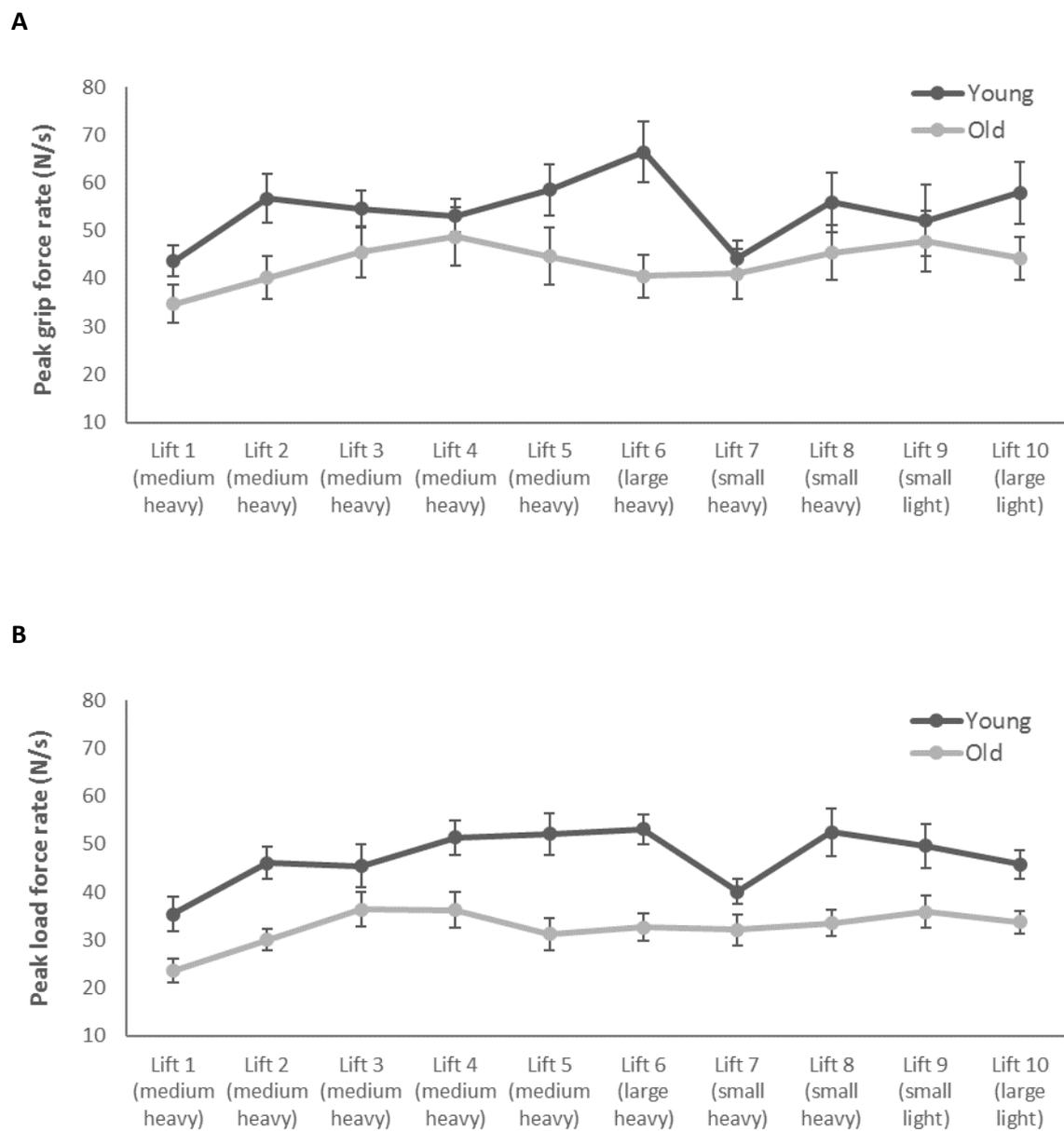


Figure S1. Young and old participants' (A) grip force rates and (B) load force rates over the five practice washout lifts of the medium-sized cylinder, followed by initial variations in object size (trials 6-7) and the subsequent variations in object weight (trials 8-9). Error bars show standard error of the mean.