

Supplementary Material

1 Supplementary Data

Experiment 1 Distributed Attention P1 ANOVA: The anchor type (2: hand, block), anchor side (2: left, right), stimulus side (2: left, right) and hemisphere (2: LH, RH) ANOVA for P1 mean amplitude data shows significant anchor type [$F(1,16)=6.36$, $p=.02$, $\eta_p^2=0.28$] indicating a greater P1 amplitudes for the block over hand conditions. The stimulus side effect [$F(1,16)=15.43$, $p=.001$, $\eta_p^2=0.49$] shows stronger P1 amplitudes for stimuli appearing on the left side. The stimulus side x hemisphere interaction indicates larger amplitudes for left side stimuli processed in the RH [$F(1,16)=13.41$, $p=.002$, $\eta_p^2=0.46$]. The anchor type x anchor side x stimulus side interaction was not significant, nor were any other main effects and interactions (all p 's $>.18$).

Experiment 1 Distributed Attention N1 ANOVA: The anchor type (2: hand, block), anchor side (2: left, right), stimulus side (2: left, right) and hemisphere (2: LH, RH) ANOVA for N1 mean amplitude data shows a significant anchor type main effect, with hand conditions producing greater N1 amplitudes than block conditions [$F(1,16)=20.36$, $p<.001$, $\eta_p^2=0.56$]. No other main effects and interactions approached significance (all p 's $>.10$).

Experiment 2 Focal Attention P1 ANOVA: The cue side (2: left, right), anchor type (2: hand, block), anchor side (2: left, right), stimulus side (2: left, right) and hemisphere (2: LH, RH) ANOVA for P1 mean amplitude data indicates little influence of hand proximity effects. The anchor side effect indicated greater P1 amplitudes for right over left side anchors [$F(1,13)=7.75$, $p=.02$, $\eta_p^2=0.37$], but the other main effects of cue side, anchor type, stimulus side and hemisphere were not significant [all F 's <1 , all p 's $>.65$]. The stimulus side x hemisphere interaction approached significance [$F(1,13)=4.20$, $p=.06$, $\eta_p^2=0.24$], suggesting larger contralateral amplitudes. The marginal cue side x anchor type x anchor side x stimulus side interaction suggested that attentional focus on one side with an anchor increased P1 amplitudes for visual stimuli appearing on that side with varying hand and block influences [$F(1,13)=4.23$, $p=.06$, $\eta_p^2=0.25$]. However, all other interactions were not significant [all F 's <3.86 , p 's $>.07$].

Experiment 2 Focal Attention N1 ANOVA: The cue side (2: left, right), anchor type (2: hand, block), anchor side (2: left, right), stimulus side (2: left, right) and hemisphere (2: LH, RH) ANOVA for N1 mean amplitude data indicates little influence of hand proximity effects. When attention was focused on one stimulus location, the cue side and the stimulus side overrode most hand contributions to any anchor effects. A significant cue x stimulus side interaction indicated increased amplitudes when the stimulus appeared on the same side as the attentional focus [$F(1,13)=5.98$, $p=.03$, $\eta_p^2=0.32$]. A significant anchor type x stimulus side interaction indicated larger N1 amplitudes for the hand condition when the stimulus appeared on the left side [$F(1,13)=5.98$, $p=.03$, $\eta_p^2=0.32$]. The cue x hemisphere interaction [$F(1,13)=4.49$, $p=.05$, $\eta_p^2=0.26$] indicated generally larger amplitudes for electrodes contralateral to the attentional cue and that participants maintained the instructed attentional set. Similarly, a significant stimulus side x hemisphere interaction [$F(1,13)=8.22$, $p=.01$, $\eta_p^2=0.39$] showed increased amplitudes in the cluster contralateral to the visual stimulus. An anchor type x stimulus side x hemisphere interaction [$F(1,13)=7.56$, $p=.01$, $\eta_p^2=0.37$] shows that although the hand condition produces equivalent N1 amplitudes for stimuli on both sides, the block

condition produces larger amplitudes for stimuli on the right. No other main effects nor interactions reached significance [all p 's $> .07$].