

The classic Flanker effect is highly replicable but relatively small and fragile (i.e., very sensitive to stimulus characteristics).

We hypothesized that the reason for that is that subjects can settle into concentrating on the central location.

We therefore predicted that if a switching component were added, requiring subjects to sometimes focus on the flankers and sometimes on the central stimulus, that the flanker effect would be far larger and far more robust (less sensitive to stimulus size or distance between stimuli).

Our prediction was resoundingly confirmed. The Flanker effect was dramatically larger in the mixed-condition than in single-task blocks (in both cases comparing non-switch incongruent and congruent trials). It was also much less sensitive to variations in stimulus characteristics.