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**Visuospatial priming of the mental number line.**

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Summary: It has been argued that numbers are spatially organized along a “mental number line” that facilitates left-hand responses to small numbers, and right-hand responses to large numbers. We hypothesized that whenever the representations of visual and numerical space are concurrently activated, interactions can occur between them, before response selection. A spatial prime is processed faster than a numerical target, and consistent with our hypothesis, we found that such a spatial prime affects non-spatial, verbal responses more when the prime follows a numerical target (backward priming) than when it precedes it (forward priming). This finding emerged both in a number-comparison and a parity judgment task, and cannot be ascribed to a “spatial-numerical association of response codes” (SNARC). Contrary to some earlier claims, we therefore conclude that visuospatial-numerical interactions do occur, even before response selection.

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