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A FIRST: Arabic-English biliterates demonstrate the SNARC effect

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Abstract

The SNARC effect is demonstrated in number judgment tasks when subjects are faster to respond to higher values with responses made on the right and to lower values with responses made on the left. This effect has been found to be impervious to handedness but works best for single digit values. Researchers speculate the reason for this robust effect to be a Mental Number Line (MNL) from which numbers, proceeding from 0-9 are oriented in a horizontal fashion from left to right. This follows when people consistently use text that proceeds from left to right, but for 1 or 2 billion of people worldwide, text orientation proceeds right to left or top to bottom. The current experiments investigated whether the SNARC effect would be found among Egyptian Arabic-English biliterates who are highly proficient in both languages and for whom reading and writing proceed from right-to-left, except for the numbering system. To our knowledge we have found the first ever demonstration of the typical SNARC effect among this population.