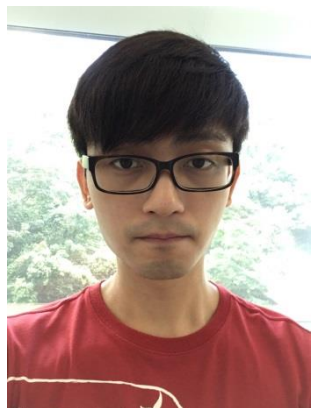


Departmental Seminar

Examining the Theoretical Determinants of Operational Momentum

11:30 a.m. – 12:30 p.m. | August 3, 2017 (Thursday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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Abstract

Operational Momentum (OM) is the observation that people tend to overestimate answers to addition problems and underestimate subtraction answers. While the effect had been demonstrated for both symbolic and non-symbolic notation, the theoretical determinates of the effect is still under debate. First, it has been proposed that a shift of attention in along the mental number line was the cause of OM. Second, OM may have been due to a flawed uncompression of operands. Both popular theories make specific predictions as to how children might exhibit OM over time; however no study so far has looked at whether or not these predictions conform to the performance of a large cross-section of children. Therefore, study 1 attempted to bridge this research gap by measuring the OM bias among children grades 1-6. Results indicate that children from grade 2 and grade 6 exhibit an OM effect, and that the effect is weaker than the adult controls'. The results contradict with the predictions of current prevalent theories, which suggest that the OM effect may be mediated by other developmental factors.

~All are Welcome~