

# A Meta-analysis of Age-related effect on Loss Aversion

Mehak Gupta

Indian Institute of Technology Delhi, Delhi, Civil lines, India

Sumitava Mukherjee

Indian Institute of Technology Delhi, New Delhi, India

## Abstract

Prospect Theoretic Loss aversion ( $\lambda$ ) suggests we overvalue losses compared to gains during decision making but the influence of age on loss aversion is unclear. We conducted a random-effects meta-analysis on 7 studies that measured loss aversion and the age of participants. The pooled estimate ( $\beta=0.0886$ , 95%CI [0.0087 0.1686]) revealed an effect of age on loss aversion. Considering age as continuous (n=1103, 5 studies;  $\beta = -0.005233$ ,  $t = -2.511$ ,  $p = 0.0122$ ) or categorical (n=1856, 8 studies;  $\beta=0.00856$ ,  $t = 0.111$ ,  $p = 0.912$ ) reflected substantial differences. Dividing participants broadly (< 46 and > 45 years) to explore differences in estimates of loss aversion ( $\lambda > 1$ ,  $\lambda = 1$ ,  $\lambda < 1$ ), also found significant differences,  $X^2(2, 1856) = 7.5362$ ,  $p = 0.0231$ . These findings underscore the veracity of meta-analysis for advancing and explicating previously underexplored aspects of decision theory.