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Magnitude Comparisons of Discounted Prices: Are They Similar to Fractions?

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Abstract

The present study examines whether peoples mental representation of discounted prices, which have a part-whole relationship of the current price to the original price, is similar to that of fractions. Participants performed a fraction comparison task and a deal comparison task on the same set of fractional magnitudes. In two experiments, we observed worse performance (error rate, RT of correct trials) on the deal comparison task. The distance effect, where magnitude comparisons are made more slowly and less accurately the closer two magnitudes are, observed in the two tasks was best modeled using logarithmic distance between the fractional magnitudes as a predictor of performance.