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The effect of loss and gain expression in the riddle on insight problem solving

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Abstract: Previous studies suggested that heuristics sometimes obstructed solving particular insight problems (e.g. Knoblich, 1999). Abe & Nakagawa (2008) took up the Cheater Detection Model (CDM: Cosmides, 1989) as an adaptive heuristic within social environment, and suggested that it has a negative influence on the 'missing dollar' riddle. In this study, we examined the same type of insight problem from a different point of view, i.e., the balance of loss and gain. We made two isomorphic riddles: in one riddle some amount of money was lost and was never found (the loss condition), and in another riddle the same amount of money was spent for additional service (the benefit condition). The percentage of correct answer was significantly higher for the latter. The result suggested that the balance of loss and gain influenced the cognitive set of the participants. The occurrence of loss might draw their attention on outflow of the money.