

Do Subliminal Hints Facilitate Sequential Planning When Solving a Spatial Insight Problem?

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Abstract: Subliminal information has been suggested to facilitate insight problem solving. The present study examined whether subliminal hints may influence not only retention of the goals but also planning of sequential steps required to solve the nine-dot problem. Using continuous flash suppression, participants were subliminally presented with either an image depicting the entire solution of the problem, the three steps to solve the problem in a sequential order, or an image of the nine dots that does not involve solution of the problem. Participants presented with the entire solution of the problem tended to show better solution performance and greater relaxation of constraints than those in the latter two conditions, whose performance failed to significantly differ from each other. These results indicate that subliminal information may be stored as a global and static visuo-spatial representation to influence solution but may not involve planning of each step to achieve insight problem solving.