

Individual differences in the use of cues during insight problem solving

Previous studies indicated that facilitating effects of implicit hints on insight problem solving are not universal. To clarify the mechanisms of this variability, the relationship between the use of hints and individual differences in personality traits were investigated. Participants engaged in a Remote Associates Test in which solution words were subliminally presented in one third of the trials. During the test, participant's pulse rate was measured as an indicator of arousal. After the test, participants completed the Big Five personality scale (TIPI-J). The participants' "extroversion" and "openness" were positively correlated with the effect of hints during low pulse rate, whereas they were negatively correlated during high pulse rate. These results suggest that solver during low arousal could utilize the cues, and their search through the problem space may become broader. During high arousal, however, their focus attention may become narrower, and extrinsic cues may not be associated with the problem.