

# The effects of thermal comfort on mere exposure effect

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**Abstract:** In this study, we focused on the influence of indoor thermal comfort on the mere exposure effect while manipulating the Predicted Mean Vote (PMV). We used neutral random shapes as the stimuli and controlled exposure frequency (0, 1, 5, 10, and 15 times) and PMV (+2=hot,+1=warm,0,-1=cool -2=cold). After the acclimation phase, participants were exposed to each stimulus, and 5 min later, were asked to rate preference, familiarity, novelty, and thermal comfort using a 7-point scale as well as recognition of old and new items. The result showed that, only in a slightly warmer environment, the mere exposure effect occurred definitely. As the number of stimulus presentations increased, the preference for the stimuli did not increase so much during the cold and normal environment condition and showed unstable tendency during the hottest background condition. These results suggested the importance of the control of thermal environment treated as an external noise.