



**MEASURING WORKING MEMORY, AND AFFECT THROUGH NATURE AND  
URBAN EXPOSURES**

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There are several documented cognitive and affective benefits associated with spending time in natural environments, or even looking at pictures of natural scenery. Contrarily, increased use of technology and time spent in urban environments are associated with depletion of cognitive resources, leading to mental fatigue, and an increasing prevalence of mental illness. Attention Restoration Theory (ART) suggests that exposure to natural environments can restore depleted resources such as attention and improve mood. This study measured attention restoration after spending time in either a natural or urban environment. 100 Students from the University of Utah were randomly assigned to take a nature walk through a local park or an urban walk through downtown Salt Lake City. To measure attention restoration, we compared changes in performance on the Operation Span (OSPAN), a working memory task, and changes in self-reported mood using the Positive and Negative Affect Schedule (PANAS) before and after going on a 20-minute walk in one of the two outdoor environments. Results from the study showed that both groups exhibited an increase in positive affect and decrease in negative affect, showing that going outside for a walk can boost mood regardless of environment. There were no significant changes in OSPAN scores before and after the walk, possibly suggesting the dosage of the environment was too low to have an impact on working memory. Future studies should analyze how the length of time spent in environments impact attention restoration.

