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Improved Self-Control Associated with Using Relatively Large Amounts of Glucose: Learning Self-Control Is Metabolically Expensive

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ABSTRACT

The current study examined whether changes in glucose during a self-control task would predict changes in self-control performance later on. Participants attended two experimental sessions, spaced two weeks apart. During each session, they had their glucose measured, completed the Stroop task as a measure of self-control, and then had their glucose measured again. Larger decreases in glucose (from before to after the Stroop task) during the first session predicted larger increases in improvement on the Stroop task during the second session, in the form of increased speed. Learning self-control might benefit from using larger amounts of glucose. Learning self-control is metabolically expensive. These findings raise the possibility that self-control fatigue occurs because metabolic energy is depleted during the learning of self-control.

KEYWORDS

Self-Control; Self-Regulation; Glucose; Metabolism; Learning; Fatigue; Energy; Memory

Cite this paper

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