

The influence of mental fatigue on delay discounting

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Abstract

The capacity to continually exert self control appears to become temporarily depleted over time, leading to mental fatigue and self-control failures. Some researchers have proposed that self control requires limited resources which must be periodically replenished, but no direct evidence supports this theory. An alternative explanation is that mental fatigue is an evolutionarily-adaptive feature for managing motivations, serving to temporarily disincentivize the present course (or type) of action, thereby redirecting behavior towards other goals that may better serve an individuals evolutionary fitness. Since self control is typically associated with delayed gratification and self-control failures with immediate gratification, mental fatigue may generally encourage immediately-gratifying behavior by temporarily increasing the extent to which individuals devalue all future rewards (delay discounting). To test this hypothesis, the present study examines whether delay discounting increases for participants who have recently completed a fatiguing task.