

Genetic Inheritance of Time Discounting Behavior

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Abstract

Although many studies have focused on the subjective time discount rate, few have addressed the influence of genetic factors. We explore to what extent variances in the subjective time discount rate can be accounted for by genetic factors using the classical twin approach, i.e., using an ACE model and alternative models. The data are based on a questionnaire survey of 104 aging Japanese twin pairs. Questions measuring the subjective time discount rate are designed to identify the immediate future choice (i.e., 2 days or 9 days), and a more distant future choice (i.e., 90 days or 97 days). We conclude that 37.3% of the variation can be accounted for by additive genetic factors for the immediate future choice; and, for the distant future choice, 24.5% of the variation can be accounted for by dominant genetic factors.

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