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LOCATION OF PRESENTING AUTHOR: America (North)

TIME ZONE OF PRESENTING AUTHOR: USA Central Time

TYPE OF SUBMISSION: Oral paper

MEMBER STATUS: Associate

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ELIGIBLE FOR THOMPSON AWARD: Yes

ELIGIBLE FOR ROWE AWARD: Yes

TITLE: The genetic and environmental components of economic behavior

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KEYWORDS: Income, intelligence, twins, genoeconomics

ABSTRACT:

The emerging field of genoeconomics is attempting to answer perennial questions regarding the determinants of wealth accumulation and social inequality. A plethora of studies has demonstrated that genetic factors explain some of the variance in income, wealth and saving rates (Cronqvist & Siegel, 2015; Hyytinen et al., 2019; Xu et al., 2017). Less studied has been the heritability of saving attitudes. Using data from the Colorado and Minnesota Twin Study (2,214 twins) we estimate the heritability of various economic outcomes (labor income, family income, financial strain, financial problems, living hand-to-mouth). Additive genetic effects range from 0.42 to 0.50. All outcomes

associate significantly with intelligence and educational attainment polygenic scores. Saving attitude shows small heritability (0.02) and is strongly predictive of all economic outcomes, an effect which is not mediated by intelligence. Intelligence is associated more with labor income than with family income, while the opposite is true for saving beliefs. The evidence suggests that there is a component of economic behavior distinct from intelligence, related to personality attributes such as constraint and conscientiousness. This factor is not highly heritable and is predictive of economic success.

Cronqvist, H., & Siegel, S. (2015). The Origins of Savings Behavior. *Journal of Political Economy*, 123(1), 123–169. <https://doi.org/10.1086/679284>

Hyytinen, A., Ilmakunnas, P., Johansson, E., & Toivanen, O. (2019). Heritability of lifetime earnings. *The Journal of Economic Inequality*, 17(3), 319–335. <https://doi.org/10.1007/s10888-019-09413-x>

Xu, Y., Briley, D. A., Brown, J. R., & Roberts, B. W. (2017). Genetic and environmental influences on household financial distress. *Journal of Economic Behavior & Organization*, 142, 404–424. <https://doi.org/10.1016/j.jebo.2017.08.001>

GRANT SUPPORT: Grant number: R01 DA042755 from the U.S. National Institute on Drug Abuse
