viewpoints

how i beCame A soCioGenomiCisT
by dalton conley

In 1997, I had recently completed my doctoral dissertation on the impact of family wealth on socioeconomic attainment and racial inequality in post-civil rights America. As I was turning my thesis into a book (Being Black, Living in the Red), I came across What Money Can’t Buy: Family Income and Children’s Life Chances by sociologist Susan Mayer of the University of Chicago Harris Graduate School of Public Policy Studies. Her book challenged my assumptions and forever altered my research trajectory.

In this clever volume, Mayer deployed a number of counterfactuals and natural experiments to show that the traditional estimates of the effect of income on children’s life chances have been grossly overstated. For example, she showed that a dollar from a transfer payment had little to no effect on children while a dollar from earnings had a much bigger effect—suggesting that it was the underlying attributes of the parents that led them to earn money that were having the positive effect, not the dollars per se. She also showed that additional income did not usually result in the purchase of goods or services that we would expect to improve the human capital or life chances of children. While there were certainly limitations to her work and some questionable assumptions in her models, she upended the world of poverty research as far as I was concerned.

While I went on to publish my book with the appropriate warnings against interpretation of my parental wealth “effects” as causal, the Mayer work sent me off in search of a correctly specified way to assess the impact of parental resources and family conditions on children’s outcomes. This journey led me first to econometrics and labor economics, which I viewed as well ahead of sociology in confronting the issue of endogeneity and selection bias.

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Though I found difference-in-differences, instrumental variable, and regression discontinuity approaches helpful in generating more consistent estimates, such approaches all suffered from the limitation that the researcher had to take what she could get in terms of natural experiments. There is—as far as I know—no good instrumental variable for parental wealth, for example. There is no regression discontinuity for race. Even if we considered randomized controlled trials, there remained severe limits to the sort of factors that were adjustable and therefore able to be studied in a causal, counterfactual framework. To quote Penn sociologist Herb Smith, “Nobody denies that the moon causes the tides even though we can’t perform an experiment on it.”

genetic endowment – the lurking variable

This frustration, in turn, led me to study genetics. The recent addition of genetic markers (single nucleotide polymorphisms or SNPs) to large datasets such as the Health and Retirement Study, the National Longitudinal Survey of Adolescent Health, and the Wisconsin Longitudinal Survey has opened up a new frontier for the social sciences. (Similar efforts are also underway in Europe, for example with the Biobank Project in the United Kingdom and large-scale genotyping of subjects at several European twin registries.) We now enjoy the possibility of directly confronting, measuring and controlling for one of the two main “lurking” variables that bias traditional models of socioeconomic attainment. That lurking variable is, of course, genetic endowment. (The other being the influence of cultural practices that are also transmitted across generations.)

Whether sociologists care one whit about how genetic endowments at conception matter for life chances, how they interact with social environment, and whether they are a random lottery at birth (or rather are socially structured by “tribe”), sociologists should at least want to include genotype in their models in order to better specify the social variables about which we do care. That is, by constructing and including genetic risk scores for outcomes, we can obtain correctly specified, unbiased parameter estimates for the variables (such as education, etc.) that typically interest social scientists.

Furthermore, we can then interact genetic propensity with exogenous environmental variables to go from the adage “a gene for aggression lands you in the board room if you are to the manor born but in prison if you’re from the ghetto” to a robust research agenda on GxE effects. Genotype, in fact, may be the prism by which we come to understand why some individuals react so differently to the same social stimulus—be that a poor neighborhood, a family breakup, or a learning intervention. Heterogeneous treatment effects abound in the social science literature; perhaps innate disposition can provide a rational accounting of them.

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Identical twins reared separately have been found to drive the same car models, to smoke the same cigarette brands, and to masturbate over photos of construction workers. Only a rube would believe that there could be a “gene” that controls such behaviors.

Edsall suggests that genetics, natural selection, and evolutionary psychology might answer a question that has plagued American politics since 1968: “Why do so many poor, working-class and lower-middle-class whites—many of them dependent for survival on government programs—vote for Republicans?” He helpfully points to the voting behavior of West Virginians in the last presidential election: the state’s median family income is 48th in the nation; nearly 1 in 5 of the state’s...