Propositions

I. With few exceptions, traditional candidate gene studies of complex behavioral traits did not yield any real insights into the genetics of behavioral phenotypes because of small sample sizes leading to low statistical power, and an inability to address methodological challenges such as population stratification and undisclosed multiple-hypothesis testing (Chapter 2).

II. Even for behavioral phenotypes that are mostly environmentally determined, a well-powered GWAS can successfully identify replicable genetic associations (Chapters 3 and 4).

III. Because educational attainment is measured in large numbers of individuals, it will continue to be useful as a proxy phenotype in efforts to characterize the genetic influences of related phenotypes, including cognition and neuropsychiatric disease (Chapter 4).

IV. The number of credibly established genetic associations identified via genome-wide association studies, and the predictive power of polygenic scores derived from the findings of such studies, is rapidly increasing and will continue to increase in the years ahead (Chapters 3 and 4).

V. Polygenic scores and quasi-experimental methods for causal inference will usher in an era of more credible research on gene-by-environment interactions (Chapter 5).

VI. The tradeoff between sample size and cross-cohort heterogeneity is quantifiable and should therefore be accounted for in the design phase of studies (Chapter 6).

VII. Bad quality control is detrimental to statistical power in genome-wide association studies.

VIII. Science should not be conceived as a race to be the first on the finish line, but as a collaborative effort to advance the research frontier.

IX. Any entity capable of intelligently designing something as improbable as a Dutchman's Pipe would have to be even more improbable than a Dutchman's Pipe. (*R. Dawkins*)

X. If you trust in yourself… and believe in your dreams… and follow your star… you'll still get beaten by people who spent their time working hard and learning things and weren't so lazy. (*T. Pratchett*)

XI. Somewhere, something incredible is waiting to be known. (*C. Sagan*)