Aimed at integrating cutting-edge psychological science into the classroom, “Teaching Current Directions in Psychological Science” offers advice and how-to guidance about teaching a particular area of research or topic in psychological science that has been the focus of an article in the APS journal Current Directions in Psychological Science. Current Directions is a peer-reviewed bimonthly journal featuring reviews by leading experts covering all of scientific psychology and its applications, and allowing readers to stay apprised of important developments across subfields beyond their areas of expertise. Its articles are written to be accessible to nonexperts, making them ideally suited for use in the classroom.

The Story of My Life and Yours: Stability and Change
by David G. Myers


Researchers, after patiently following lives through time, have been struck by the stability of our human traits. Across decades, our temperaments, personalities, and intelligence endure. “As at age 7, so at 70,” says a Jewish proverb.

Figure 1. Moray House Test raw scores for the Lothian birth cohort of 1921 at ages 11 and 90 (from Deary, Pattie, & Starr, 2013).

An extraordinary tribute to human stability was sparked when Patricia Whalley, with help from APS Fellow Ian J. Deary and his coworker Lawrence Whalley, located a data goldmine buried
on dusty Edinburgh University basement storeroom shelves (Deary, Whalley, & Starr, 2009). The discovery: the long-forgotten results of intelligence tests administered on June 1, 1932, to 87,498 11-year-olds — almost every Scottish child born in 1921. “This will change our lives,” Deary aptly replied when Whalley told him the news.

Seizing this rare opportunity and combining it with their later discovery of data from a 1947 testing of almost all Scottish 11-year-olds — the only other known time when a nation has tested the intelligence of an entire age cohort in its population — Deary and his intrepid collaborators tracked down survivors and retested them at ages 70 to 90. Their consistent finding was that intelligence differences persist. Even without adjusting for the test’s imperfect reliability — children’s scores would vary some if they were retested the next day — the correlations across time have ranged from .67 (for those retested at age 70) to .54 (for those retested at age 90; see Fig.1).

The Scottish investigations — which make my short list of psychology’s greatest studies — also revealed that higher-IQ 11-year-olds lived longer, healthier lives with less risk of dementia. Among girls scoring in the highest 25%, 70% were alive at age 76 — as were only 45% of those scoring in the lowest 25% (Whalley & Deary, 2001). “Whether you live to collect your old-age pension depends in part on your IQ at age 11,” remarked Deary (2005).

Life is, in part, a story of stability, rooted in our enduring genes and brain. But as the variability in the Scottish Mental Surveys data indicates, it also is a story of change. That, too, is a lesson from the striking findings of Greg Walton (2014), Geoffrey Cohen, and APS James McKeen Cattell Fellow Carol Dweck — showing that minutes-long psychological interventions can boost school achievement. We are formed by our nature and our nurture.

In a modest naturalistic observation that followed lives across time, I, too, was struck both by stability and change. My procedure was simple:

- I closely observed my small college classmates while living with them for 4 years.
- I allowed 50 years of life to unfold, taking us to varied places.
- I observed them again at a recent 3-day reunion.

The stability of their traits was stunning. Thoughtful, serious Bill was still making deeply felt pronouncements. Determined Annette continues to achieve. Enthusiastic Steve could still talk for 10 minutes while hardly catching a breath. Joker George still had an impish, edgy spirit. Happy Fiona still laughed and grinned. A half century had elapsed, and everyone seemed the same person … until I listened to what they said. Traits endured, but attitudes had changed. Some now were ardent progressives with a passion for gay rights; others expressed Tea-Partyish contempt for moral decay and big government. Until they spoke, I had no idea who was going take what stance.

As the remarkable Scottish intelligence studies demonstrate, our lives are marked by a stability that feeds our identity as well as by a potential for change that enables us to grow and to hope for a brighter future.

To support teaching colleagues who might wish to present the Scottish findings, Ian J. Deary has generously agreed to make available to teachers everywhere the slides he offers Edinburgh University introductory psychology students. These include photos of the storeroom discovery, photos of the participants then and now, and illustrations of the findings, such as the figure above. View or download the teaching slides.
References


September 30, 2014