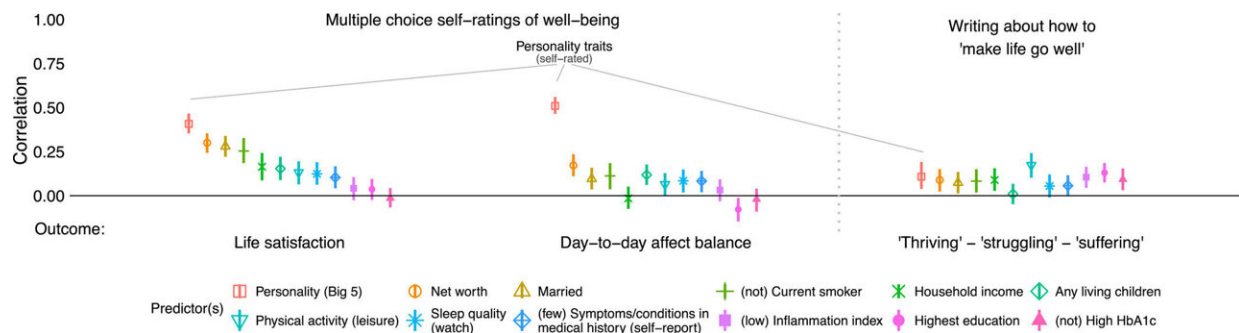# Circumstances influence happiness as much as personality, find study

April 25 2023, by James Dean

Well-being associations for multiple-choice measures of life satisfaction and day-to-day affect versus a writing-based measure of "thriving." Correlation for personality traits represents adjusted multiple R (estimates are adjusted downward to account for the inclusion of more variables than comparisons). Error margins are bootstrapped 95% confidence intervals. $N = 1,044$. Credit: *Proceedings of the National Academy of Sciences* (2023). DOI: 10.1073/pnas.2212867120

Happiness can't be bought, but nor does it depend mostly on one's mindset, as many happiness surveys would suggest, according to a recent study by Cornell psychology researchers.

They find that objective circumstances and behaviors, such as wealth and health, influence happiness as much as subjective psychological traits, like an outgoing nature.

Their analysis shows that surveys of happiness and [life satisfaction](link) overstate the importance of psychological traits because they are measured similarly, asking respondents to rate themselves using scales or multiple-choice questions, sometimes the same questions.

But a methodological change—simply asking someone how they're doing—enables a fairer comparison. In written responses to such an open-ended question in one large study, personality's huge advantage relative to circumstances and behaviors disappeared, according to the analysis.

"If we look at the research, it suggests that people are just happier because they have a happy personality," said William Hobbs, assistant professor of psychology and government in the College of Human Ecology and College of Arts and Sciences. "Our study suggests that's not the case, that there are many drivers of happiness. For some it might have to do with personality, for others saving money, exercising or spending time with family and friends."

Hobbs is the lead author of "For Living Well, Behaviors and Circumstances Matter Just as Much as Psychological Traits," published in *Proceedings of the National Academy of Sciences* (*PNAS*). Anthony Ong, professor of psychology in the College of Human Ecology and professor of gerontology in medicine at Weill Cornell Medicine, is a co-author.

Their findings could inform happiness research as well as policies that increasingly seek to demonstrate happiness benefits. They suggest that policies targeting circumstances and behaviors, such as reducing inequality or smoking, may be more valuable than interventions focused on psychology, which might not be possible to implement on a population scale.

To test whether open-ended questions better capture circumstances' influence on happiness, the researchers tapped the only nationally representative longitudinal study that has systematically included an open-ended question about well-being. From 2004 to 2016, the Midlife in the United States (MIDUS) study asked, "What do you do to make life go well?"

Hobbs and Ong scored more than 1,000 responses using a large language model, validated by research assistants and sentiment analysis software, to assess whether they reflected thriving, struggling or suffering, terms used to describe scales in Gallup happiness reports. Using a pre-existing language model and other automated scoring systems limited the researchers' control over the tests, and multiple measures helped assess sensitivity to different shortcomings across the happiness scores.

The MIDUS study also provided information about respondents' income, education and whether they were married or had children, a measure of social connectedness; health behaviors, including smoking or physical activity; and medical history and certain current health indicators.

Analyzing answers to the open-ended question, the researchers found that the measures of circumstances and psychological traits were correlated roughly equally with how happy people said they were.

"If we don't use self-ratings and closed-ended questions to study happiness, then things like health and money and to some extent social connectedness are just as strongly associated with happiness as personality," Hobbs said. "If we correct for this methodological problem, then they look about the same."

While closed-ended questions are crucial for researchers to track life's ups and downs and compare results, Hobbs and Ong suggest that the open-ended approach they evaluated "appears to be a uniquely promising

addition to the well-being and wellness studies repertoire … [and] provides a view of well-being from the perspective of survey respondents."

Hobbs said advances in machine learning and artificial intelligence now make it possible to ask people if they are happy in different ways, and still have replicable ways of scoring responses. Language models introduce their own biases, he said, but they probably aren't multiple-choice survey response biases and so they enable fairer comparisons between personality and circumstances than existing closed-ended measures.

"Perhaps the best way to see whether someone is doing well," the researchers concluded, "is to ask them."

More information: William R. Hobbs et al, For living well, behaviors and circumstances matter just as much as psychological traits, *Proceedings of the National Academy of Sciences* (2023). DOI: 10.1073/pnas.2212867120

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