

Researchers suggest risk preference should be considered a psychological trait like intelligence

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(Medical Xpress)—A small team of researchers with the University of Basel in Switzerland has conducted a study of risk preference in people

and has found evidence that suggests risk preference should be considered a psychological trait like intelligence. In their paper published on the open access site *Science Advances*, the group describes the experiments they carried out and what they found when studying their results.

A lot of work has gone into developing methods for measuring how intelligent a person is, resulting in standardized tests that are believed to be reasonably reliable. More recently, brain scientists and cognitive specialists have begun to wonder if there might be other brain-associated characteristics that might be measurable and subjected to [standardized tests](#), as well. In this new effort, the researchers have focused on [risk preference](#) or aversion, and the possibility that it might be measurable and compared to others, offering a scale of sorts.

To learn more about how eager people are to engage in risky behavior, the researchers enlisted the assistance of 1500 volunteer adults to take a series of tests (39 tests in all), which together were meant to gauge a person's desire to seek out risky behavior. The team then analyzed the data and found that 61 percent of the variation in risky behavior scores could be summed up with a single component—a person's risk preference quotient, if you will. The remaining factors could all be attributed to which particular type of risk was involved. The single component, which the team dubbed as R, is general, the team notes, which suggests it can be applied multiple to risk situations along with other factors attributable to a particular type of risk.

The researchers cannot explain why an individual might have a given score (which offers insight into how likely they are to engage in risky behavior), but suggest it might have to do with genetics or perhaps a stronger or weaker ability to assess the possible outcomes of risky [behavior](#). They also note that other factors might contribute to a risk factor, such as natural chemical reactions that occur when exposed to a

possible risk or differences in factors that contribute to inhibition. The team concludes by suggesting their study offers evidence that risk [preference](#) should be classified as an enduring cognitive trait.

More information: Renato Frey et al. Risk preference shares the psychometric structure of major psychological traits, *Science Advances* (2017). [DOI: 10.1126/sciadv.1701381](https://doi.org/10.1126/sciadv.1701381)

Abstract

To what extent is there a general factor of risk preference, *R*, akin to *g*, the general factor of intelligence? Can risk preference be regarded as a stable psychological trait? These conceptual issues persist because few attempts have been made to integrate multiple risk-taking measures, particularly measures from different and largely unrelated measurement traditions (self-reported propensity measures assessing stated preferences, incentivized behavioral measures eliciting revealed preferences, and frequency measures assessing actual risky activities). Adopting a comprehensive psychometric approach (1507 healthy adults completing 39 risk-taking measures, with a subsample of 109 participants completing a retest session after 6 months), we provide a substantive empirical foundation to address these issues, finding that correlations between propensity and behavioral measures were weak. Yet, a general factor of risk preference, *R*, emerged from stated preferences and generalized to specific and actual real-world risky activities (for example, smoking). Moreover, *R* proved to be highly reliable across time, indicative of a stable psychological trait. Our findings offer a first step toward a general mapping of the construct risk preference, which encompasses both general and domain-specific components, and have implications for the assessment of risk preference in the laboratory and in the wild.

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