

# New Research From Psychological Science

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Read about the latest research published in *Psychological Science*:

## [Educational Attainment and Personality Are Genetically Intertwined](#)

*René Mõttus, Anu Realo, Uku Vainik, Jüri Allik, and Tõnu Esk*

In this study, the researchers examined whether phenotypic variation in personality traits is associated with polygenic propensity for educational attainment. The researchers examined more than 3,000 Estonian adults who were part of the Estonian Biobank cohort. The participants gave a blood sample for DNA testing, reported their highest level of educational attainment, and completed an assessment of personality domains of the five-factor model and their 30 facets. The researchers also collected personality ratings of participants provided by informants (e.g., spouse, friend, child, or sibling). The researchers found that the education polygenic scores — an estimate of molecular-genetic propensity for education — were correlated with various personality traits, especially those in the neuroticism and openness domains. This correlation closely mirrored the relationship between these traits and phenotypic education. The researchers indicate that there are many possible interpretations of these findings and that more research is needed.

## [Reprioritization of Features of Multidimensional Objects Stored in Visual Working Memory](#)

*Young Eun Park, Jocelyn L. Sy, Sang Wook Hong, and Frank Tong*

Most objects people come across in their daily lives have several different features. The *integrated-object hypothesis* suggests that all the features of an object are bound together in working memory and stored in an integrated format. The researchers examined whether the individual features of an object that has already been encoded can be unbound during the maintenance stage of visual working memory. To test this, participants, in the first of several studies, viewed sine gratings that varied in color and orientation. After viewing the gratings, participants were shown a neutral cue or a cue that indicated whether their memory was likely to be tested for the color of the grating or the orientation of the grating. After a variable length of time, participants were asked to indicate either the color or the orientation of the stimuli. The researchers found enhanced working memory performance for the feature that was prioritized; however, this boost was associated with decreased performance for the deprioritized feature. This finding challenges the assumption that features of an object are obligatorily represented as an integrated object in visual working memory.

## [Categories and Constraints in Causal Perception](#)

*Jonathan F. Kominsky, Brent Strickland, Annie E. Wertz, Claudia Elsner, Karen Wynn, and Frank C. Keil*

In the real world, when an object (A) collides with another object (B), it is unusual to see object B moving at a faster speed than object A — unless object B is self-propelled. Research on casual perception finds that people are sensitive to this, categorizing events in which object B moves faster than object A as “triggering” or “releasing” events, and events in which object B moves slower than object A as “launching” events. The researchers examined whether there is a distinction in causal perception between these two types of events by having participants view pairs of disks (A and B) involved in causal or noncausal events in which each disk in the pair moved at the same speed or at different speeds (disk A moves faster than disk B or vice versa). The researchers observed categorical boundaries within causal perception in that incidences in which disk B moved faster than disk A were viewed as being categorically different than symmetrical-speed events or events in which disk A moved faster than disk B. This categorical distinction was seen in children as young as 7 to 9 months old, suggesting that this may be an early-developing component of causal perception.