## New Research From Clinical Psychological Science

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The Half-Empty/Full Glass in Mental Health: A Reference-Dependent Computational Model of Evaluation in Psychopathology

Francesco Rigoli, Cristina Martinelli, and Giovanni Pezzulo

Rigoli and colleagues propose a computational theory of how impairments in reference-dependent evaluation (i.e., attributing value to outcomes relative to their context) might underlie mental illness. The theory suggests that evaluation derives from comparing an object against a reference point parameter and weighting any discrepancy using an uncertainty parameter. Maladaptive evaluation occurs when these two parameters do not reflect the statistical properties of the context. For example, when the reference point parameter is affected, perfectionism, which is associated with eating disorders, can occur. When the uncertainty parameter is too small or too large, it exaggerates or attenuates emotional sensitivity, respectively; this is associated, for instance, with borderline personality disorder and schizophrenia, respectively.

There Is No Evidence That Associations Between Adolescents' Digital Technology Engagement and Mental Health Problems Have Increased

Matti Vuorre, Amy Orben, and Andrew K. Przybylski



To test whether the association between technology use and adolescent mental health is becoming more harmful, Vuorre and colleagues examined adolescents' use of smartphones, social media, and television, which raised concerns about mental health in the late 20th century similar to those recently raised by digital technology. In the last decade, technology use has become less associated with depression, but social-media use has become more associated with emotional problems. Overall, there was no consistent strengthening of technology's relations with mental health over time. However, drawing firm conclusions about this relationship might be premature.

Longitudinal Coupling of Depression in Parent-Adolescent Dyads: Within- and Between-Dyads Effects

## Over Time

Julianne M. Griffith, Jami F. Young, and Benjamin L. Hankin



Griffith and colleagues assessed depressive symptoms in adolescents and their parents every 3 months for 2 to 3 years. Results indicated cofluctuation in parental and adolescent depression—that is, deviations in parental depression were associated with similar deviations among their adolescent children at the same time points. However, parental depression did not predict future adolescent depression, or vice versa. Individual differences between dyads (adolescent—parent pairs) and contemporaneous within-dyad effects characterized the coupling of depressive symptoms among parents and adolescents across time. Thus, parental and adolescent depression show contemporaneous cofluctuations but no prospective predictive power.

Lower Cardiovascular Reactivity Is Associated With More Childhood Adversity and Poorer Midlife Health: Replicated Findings From the Dunedin and MIDUS Cohorts Kyle J. Bourassa et al.

People who experienced childhood adversity (e.g., abuse, neglect) appear to have a blunted cardiovascular physiological reaction to stressors, an outcome associated with poorer health. Bourassa and colleagues found that participants who had experienced more childhood adversity had lower cardiovascular reactivity, and people with lower cardiovascular reactivity were more likely to report poorer health and greater inflammation. Moreover, participants with lower cardiovascular reactivity were aging biologically faster and/or had increased risk of early mortality. Greater reactivity among participants who were more conscientious, less depressed, and higher functioning partially explained these results.

Growth in Self-Regulation Over the Course of Adolescence Mediates the Effects of Foster Care on Psychopathology in Previously Institutionalized Children: A Randomized Clinical Trial Cora E. Mukerji, Mark Wade, Nathan A. Fox, Charles H. Zeanah, and Charles A. Nelson

Mukerji and colleagues evaluated the growth trajectories of self-regulation from ages 8 to 16 among three groups of children: those who had been institutionalized and were in foster care, those who were still institutionalized, and those who had never been institutionalized. They found that children in foster care experienced modest growth in self-regulation over adolescence and, by age 16, achieved the same level of self-regulation as never-institutionalized children. Compared with children who remained at an institution, those placed in foster care appeared to show less psychopathology due to increased growth in self-regulation, resulting in reduced peer difficulties. These findings indicate that foster care might mitigate the effects of institutionalization on psychopathology.

Marital Satisfaction as a Moderator of Molecular Genetic Influences on Mental Health Susan C. South, Frank D. Mann, and Robert F. Krueger

Can relationship quality serve as an important context for the expression of genetic influences on psychopathology? South and colleagues analyzed whether marital satisfaction moderated the association between polygenic risk scores (PRSs; genetic influences on psychopathology) and measured phenotypes (e.g., depressive symptoms, alcohol use, neuroticism) in mental health. One of the main findings was

that the PRSs for anxiety were more strongly related to the anxiety phenotype when marital satisfaction was low than when it was high. This indicates that relationship quality may influence genetic susceptibility to environmental influences in anxiety.

## The Futures We Want: How Goal-Directed Imagination Relates to Mental Health

Beau Gamble, Lynette J. Tippett, David Moreau, and Donna Rose Addis



Positive and detailed imagining of one's goals is linked to increased well-being and reduced depressive symptoms, this research suggests. Participants generated personally relevant, plausible, and specific goals (e.g., passing an exam). For some of their goals, they also imagined and described a relevant future scene in their life (i.e., goal-directed simulation task). Results indicated that higher well-being and lower depressive symptoms were linked to generating more attainable, controllable goals and to more detailed and positive goal-directed imagination. At a 2-month follow-up, participants reported higher well-being when their goal-directed imagination had been positive.