

2022's Top Research Includes Flavor-Sensitive Fetuses and Less-Lonely Older Adults

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From a cranky-faced fetus scowling at her mother's healthy lunch choice to an octogenarian still benefiting from long-ago musical lessons, the most impactful psychological science research published in 2022 reveals that new understandings of human behavior—studied across the lifespan and from within a remarkable diversity of topics and scientific subdisciplines—continue to resonate with wide audiences.

Here are the 10 most impactful articles published in [APS's six peer-reviewed research journals](#) in 2022. The ratings are based on a combination of the articles' readership views and their Altmetric Attention Scores, a weighted approximation of all the attention a research output gathers online, including social media shares and mentions as well as citations. In all, the APS journals published 421 articles in 2022.

Listen to a conversation about these findings on the APS podcast, [Under the Cortex](#).

#1: [Flavor Sensing in Utero and Emerging Discriminative Behaviors in the Human Fetus](#)

By Beyza Ustun, Nadja Reissland, Judith Covey, Benoist Schaal, and Jacqueline Blissett

Psychological Science

An acquired taste? It seems fetuses don't find kale particularly delicious either. Examining 4D ultrasound scans of women who were between 32 and 36 weeks pregnant, the researchers saw that fetuses created more of a "laughter face" response when exposed to the flavor of carrots their parents consumed and more of a "cry face" response when exposed to the flavor of kale.

#2: Experience of Playing a Musical Instrument and Lifetime Change in General Cognitive Ability: Evidence From the Lothian Birth Cohort 1936

By Judith A. Okely, Katie Overy, and Ian J. Deary

Psychological Science

In a win for music educators, researchers found that an instrument's effect might last well beyond the period of training. Individuals born in 1936 in Scotland were tested for general cognitive ability at age 11 and then again at age 70. The more their musical experience, the greater their cognitive gains, even adjusting for factors such as socioeconomic status, years of education, and disease history.

#3: No Evidence That Siblings' Gender Affects Personality Across Nine Countries

By Thomas Dudek, Anne Ardila Brenøe, Jan Feld, and Julia M. Rohrer

Psychological Science

No, your brother (or sister) didn't shape your personality. Using data from more than 85,000 people in 12 large representative surveys covering nine countries, the researchers investigated major personality traits including risk tolerance, trust, and agreeableness. The results suggested that the next younger or older siblings' gender had no effect on personality.

#4: Understanding and Addressing Older Adults' Loneliness: The Social Relationships Expectations Framework

By Samia C. Akhter-Khan, Matthew Prina, Gloria Hoi-Yan Wong, Rosie Mayston, and Leon Li

Perspectives on Psychological Science

Giving to and being valued within a community can go a long way toward preventing loneliness in older adults. The authors characterize loneliness as a perceived discrepancy between expected and actual

social relationships. Their framework outlines six social relationship expectations of older adults, including generativity and contribution, and being respected and valued. The other four (e.g., having contacts, feeling cared for) are universal across age.

5: Critical Ignoring as a Core Competence for Digital Citizens

By Anastasia Kozyreva, Sam Wineburg, Stephan Lewandowsky, and Ralph Hertwig

Current Directions in Psychological Science

Please don't feed the trolls. Choosing what to ignore and where to invest one's limited attention can empower online users to avoid the excesses, traps, and information disorders of today's digital world, the authors suggest. Cognitive strategies to develop this competence include self-nudging (removing temptations from one's digital environment); lateral reading (verifying a claim's credibility elsewhere online); and the do-not-feed-the-trolls heuristic (not rewarding malicious actors with attention).

6: Motivating Personal Growth by Seeking Discomfort

By Kaitlin Woolley and Ayelet Fishbach

Psychological Science

Embrace the squirm. Proposing that seeking discomfort as a signal of growth can increase motivation, the authors tested their theories in areas of personal growth including taking comedic risks in improvisation classes. A simple instruction to participants—to interpret immediate discomfort as a signal of self-growth—did more to motivate them than standard instructions.

7: Test Anxiety Does Not Predict Exam Performance When Knowledge Is Controlled For: Strong Evidence Against the Interference Hypothesis of Test Anxiety

By Maria Theobald, Jasmin Breitwieser, and Garvin Brod

Psychological Science

Test-anxious students won't flub what they already know, but they might miss out on learning gains during test prep. According to an analysis of mock exams that medical students completed shortly before their actual high-stakes exams, test anxiety did not affect their performance beyond their level of knowledge, but *high* trait test anxiety did limit their further learning during the exam-preparation phase. This points to interventions focused on knowledge acquisition instead of anxiety reduction.

8. How to Change Negative Outcome Expectations in Psychotherapy? The Role of the Therapist's Warmth and Competence

By Anna Seewald and Winfried Rief

Clinical Psychological Science

First impressions are so powerful in therapy that even the most skeptical patient is likely to expect—and experience—better results if they feel the therapist is warm and competent. In an online experiment, the researchers presented different videos of therapist-patient interactions. The more the therapist appeared to be caring and engaged, the more positive the subjects were about outcomes.

9. Estranged and Unhappy? Examining the Dynamics of Personal and Relationship Well-Being Surrounding Infidelity

By Olga Stavrova, Tila Pronk, and Jaap Denissen

Psychological Science

Cheating is rarely the first sign that a relationship is in trouble. Analyzing data from German couples, the researchers found that infidelities were usually preceded by a gradual decrease in relationship functioning and both partners' well-being. This well-being usually did not recover in the years following the infidelity, except when women were the unfaithful partners and/or the partners were less committed to the relationship to begin with.

10: Does Objectively Measured Social-Media or Smartphone Use Predict Depression, Anxiety, or Social Isolation Among Young Adults?

By Craig J. R. Sewall, Tina R. Goldstein, Aidan G. C. Wright, and Daniel Rosen

Clinical Psychological Science

Digital technology isn't making our kids unhappy. In their contribution to this popular area of study, the researchers examined the associations between three aspects of digital-technology use (duration and frequency of smartphone use, duration of social-media use) and three aspects of psychological distress (depression, anxiety, and social isolation) among a sample of young adults. Most of these relationships were statistically nonsignificant.

[Read about the top 10 articles of 2021.](#)

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