

BRAIN NEWS THAT YOU CAN USE #99 SEPTEMBER 28, 2023

IS CHILDHOOD ADVERSITY A LENS FOR MORAL JUDGMENTS? https://neurosciencenews.com/child-adversity-moral-juudegement-23806/

Summary: Researchers uncovered how a person's childhood adversity shapes others' judgments of their actions.

The study reveals that people perceive negative actions by those with challenging childhoods as less a result of their moral character and more due to their upbringing, thus blaming them less. Conversely, when these individuals exhibit positive behavior, they receive greater praise, seen as a true reflection of their deeper character.

This "asymmetric sensitivity" in judgments offers insights into human empathy and moral evaluations.

Key Facts:

- 1. Actions by individuals with adverse childhoods are seen less as a reflection of their core moral character and more due to their environment.
- 2. Positive actions by those with childhood adversity are perceived as deeply rooted in their genuine character, leading to more praise.
- 3. This research builds on earlier findings that information about a person's adversity-filled past can affect judgment, shedding light on the why behind these judgments.

Source: University of Missouri

It's human nature to be judgmental. But why do we place less blame on someone, or give more praise, if we find out that person had a history of suffering in childhood?

In a recent study, University of Missouri researchers discovered why someone's childhood adversity influences how others judge their behavior.

The finding contributes to a growing body of evidence that suggests judgments of praise and blame are "asymmetrically sensitive" to certain types of information about someone's life history, said Philip Robbins, associate professor and chair of the Department of Philosophy.

"In the case of negative or anti-social behavior, we see the actions of people with adverse childhood experiences as less of a reflection of their fundamental moral character, and more as a reflection of the environment they were raised in, so we blame them less for those actions," Robbins said.

"On the other hand, when someone has experienced adversity in childhood and does something good, we tend to think of that behavior as more reflective or expressive of who the person is deep down, so we praise them more for it."

The research, based on statistical analysis of survey results from 248 participants, suggests that struggling with adversity in early life can be a "deformative experience," reshaping an individual's moral development.













"Experiences deform people's behavior in the sense that adverse experiences can pull people away from who they really are on a deeper level by pushing them onto an 'alternative' track of anti-sociality that they otherwise wouldn't be on." Robbins said.

The research conducted by Robbins and Fernando Alvear, a doctoral candidate in philosophy at MU, builds upon earlier work by Robbins and other colleagues, including Paul Litton, dean of the MU School of Law.

Previously, Robbins and his colleagues found that people tend to think of a violent criminal as less culpable and less deserving of punishment when told that the accused had suffered serious harm in childhood.

They also found that people tend to give more praise to someone for their good deeds as an adult after discovering that person had to overcome adversity or suffering earlier in life, such as abuse and neglect as a child.

The current study by Robbins and Alvear aimed to address a largely unanswered question from the earlier work about why this kind of information has this effect on people's judgements.

"This has all sorts of implications for people's social interactions," Robbins said.

"Moral judgment is tremendously important for how we relate to others as people because they form an essential part of social judgment.

"The current research is part of a larger project aimed at understanding how moral judgment works. This understanding could potentially reorient people's thinking in ways that could have positive effects on the everyday practice of blaming and praising."

Robbins believes there is a natural "track" for a person's development, and people who haven't experienced challenging life events, including loss, trauma or other social disadvantages, do not typically develop strong anti-social tendencies later in life.

"People generally learn to behave in morally appropriate ways toward other people, such as not hurting, harming or speaking ill of them," Robbins said.

"When people don't learn these lessons, they are pulled off-track from the natural path of development. People may not be saints or heroes, but most of us aren't villains either."

FROM CLICKS TO COMPULSION: UNRAVELING THE HABIT LOOP OF SOCIAL MEDIA https://neurosciencenews.com/social-media-compulsive-behavior-23839/

Summary: Social media usage evolves from a conscious choice to an automatic habit, particularly among frequent users. The study reveals that 'likes' and comments increasingly matter less to habitual users, who continue posting regardless of public engagement or consequences.

Structural changes to platforms like Facebook may temporarily slow down these frequent posters, but they quickly adapt. These findings raise questions about the efficacy of motivational interventions in regulating harmful or misleading content online.

Key Facts:

- 1. Frequent, habitual social media users continue to post at a consistent rate, even when the number of 'likes' or comments they receive changes.
- 2. Initial structural changes to social media platforms can slow down habitual posting behavior, but frequent users often quickly adapt back to their old posting speeds.













3. Motivational interventions are less effective on habitual users, who appear to be more resistant to changes influenced by positive or negative social feedback.

Source: USC

People join social media to enhance their social lives, make new friends and build an online identity while expressing themselves. However, as they delve deeper into these digital realms, their behavior changes.

Engaging in likes, shares, posts and retweets becomes habitual, eclipsing the original motivations that initially drew them to the platform. What was once a conscious choice transforms into automatic, almost impulsive action.

Those are the findings of a new study by researchers at the USC Dornsife College of Letters, Arts and Sciences.

Despite public health experts raising concerns about the negative impact on mental health and overall well-being, particularly among young users, a significant majority of Americans — 70%, according to Pew Research — still find themselves drawn to their apps daily, some even hourly.

Psychology researchers Wendy Wood and Ian Anderson at USC Dornsife compared posting rates of frequent, habitual users with those of infrequent, nonhabitual users. They wanted to know if those groups' rates varied in response to the reactions and comments they received from others.

The research was published online earlier this year in *Motivation Science*.

Building on previous work, the researchers conducted three consecutive studies focused on Instagram and Facebook posting behavior. They found evidence that users develop posting habits that differ based on how frequently they use the two apps.

The studies highlighted how a daily habit of posting can become insidious over time — shifting from posting with a goal in mind to posting automatically with little thought. And this behavior can lead to a never-ending urge to share content on these platforms.

Using metrics from Facebook and comparing habitual users with infrequent or new users, the researchers investigated whether social rewards motivate the two types of users in the same way.

Anderson said he and Wood also looked at whether automatic, habitual, repeated posting on Facebook or Instagram happens when social motivation is limited or absent. "In other words, do these frequent users just post no matter if they are receiving likes or comments from their posting? Or are they posting just out of sheer habit?" he asked.

Social rewards only work for some The researchers found that likes, comments and shares had less impact on frequent habitual users' motivation to post than on infrequent users and new users.

In a preliminary study using Instagram user data gathered from a study conducted by Emilio Ferrara of the USC Viterbi School of Engineering, Woods and Anderson found, as expected, that social rewards in the form of likes indeed did motivate users to engage more frequently and faster. The more likes a user received, the more frequently they posted. Fewer likes resulted in a slower posting rate.

However, digging a little deeper, the researchers made an intriguing discovery: Social rewards such as likes increased engagement primarily among new or infrequent users. In contrast, frequent users continued posting at their usual rate regardless of the reactions they received from others.













Woods and Anderson conducted a second study to test this theory further, examining more than 1,900 Facebook posts.

They found that positive reactions motivated increased and faster engagement only among infrequent and new users but not among frequent users. Replicating the results from Instagram, habitual Facebook users continued to post quickly regardless of whether they received positive or negative recognition.

Habitual users don't care what you think The findings confirmed what Woods and Anderson suspected: With enough repetition, users form habits or mental associations tied to specific contextual cues. Context cues include factors such as the location or time when they use the app or receive notifications.

For example, a user who frequently uses the app while lying in bed, sitting on the couch or at a particular time of day will start associating using the app with those specific situations. Once these habits are formed, users respond quickly and automatically whenever they encounter these context cues, with minimal deliberation.

In this second study, the researchers also surveyed the participants and found that for those with really strong habits, even though they said they cared about the social rewards and reactions from other people, their behavior told a different story. These users post at roughly the same rate, no matter how many likes they get. This can have adverse consequences, Anderson said.

"They're not just ignoring the likes, they're also ignoring the consequences of posting, which is how misinformation starts to spread," he said.

The study indicates that motivational interventions won't impact habitual and nonhabitual users in the same way. Simply telling people not to share certain types of content that could be harmful, dangerous or false will not be effective for habitual users, even if it works for nonhabitual users.

Structural site changes may work To further test the hypothesis that frequent habitual users are not motivated by positive feedback or warnings about not posting harmful or misinformation, the researchers examined whether a structural change in a social media platform would alter the posting rates of such users.

In 2007, Facebook changed its platform design to increase engagement, launching a status update bar and placing content from a user's friends at the forefront of their news feed.

The change initially slowed down highly frequent posters' automatic responses. But, for infrequent users, the structural change did what it intended to do: increase engagement with others and speed up their posting rate after receiving positive reactions.

The study demonstrated that the design of social platforms could have an impact for the better on the posting rates of habitual posters by slowing them down for a moment.

However, over time, these users regained their posting speed, suggesting that they re-trained their habitual posting behavior to fit the platform's new design.

Anderson concluded that if social media companies are serious about addressing issues such as misinformation, hate speech and adolescent mental health, they must also change their platforms' structure to impact habitual users.

"Interventions that work for one type of user just don't work for the other. There will have to be something really disruptive structurally on these social media sites to change the behavior of habitual users," he said.













He said that if Facebook and Instagram wanted to move behavior in another direction, they would have had to change the structures to make users post accurate content. That has not happened to the degree necessary to break frequent users' bad habits

Knowing Two Languages Enhances Memory and Prediction

Summary: Could being bilingual make you better at predicting words and enhancing memory?

A new study reveals that bilingual individuals have a unique advantage when it comes to memory retention and word prediction, due to the "competing words" effect. By constantly selecting from a larger pool of potential words in two languages, bilinguals train their brains for superior cognitive functions.

The more proficient you are in your second language, the more these benefits shine.

Key Facts

- 1. The same neural apparatus processes both the first and the second languages in bilingual individuals, activating competing words from both languages.
- 2. Bilinguals with high proficiency in their second language show enhanced memory and prediction abilities compared to monolinguals and bilinguals with low second-language proficiency.
- 3. Eye-tracking data supports the claim that bilinguals focus longer on objects with overlapping word sounds, leading to improved memory retention.

Source: The Conversation

BILINGUAL BRAIN BOOST: HOW KNOWING TWO LANGUAGES ENHANCES MEMORY AND PREDICTION

Bilingual Brain Boost: How Knowing Two Languages Enhances Memory and Prediction - Neuroscience News

Summary: Could being bilingual make you better at predicting words and enhancing memory?

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Source: The Conversation

The Paradox of Progress: Why More Freedom Isn't Making Women Happier https://neurosciencenews.com/women-happiness-psychology-23862













Summary: Despite gains in freedom and employment opportunities, research indicates women are experiencing higher levels of anxiety, depression, and sleep issues than before. A survey suggests that dissatisfaction with societal treatment may be a key factor.

The gender wellbeing gap widened during the pandemic but showed that women rebound faster emotionally, possibly due to stronger social connections. While facing social inequality, women report higher levels of purpose in life, often derived from altruistic activities.

Key Facts:

- 1. Women across different countries and age groups are experiencing higher levels of anxiety, depression, and sleep disturbances despite societal advances.
- 2. The gender gap in well-being increased during the pandemic, but women showed greater emotional resilience, possibly due to stronger social networks.
- 3. Women generally report having more purpose in their lives compared to men, often attributed to engaging in more altruistic endeavors.

Source: The Conversation

Something strange is going on in <u>women's happiness</u> research. Because despite having more freedom and employment opportunities than ever before, women have <u>higher levels of anxiety and more mental health challenges</u>, such as depression, anger, loneliness and more restless sleep. And these results are seen across many countries and different age groups.

A recent survey conducted by the American Psychological Association may hold some clues as to why. The results found that most US women are <u>unhappy</u> with how society treats them.

Many women are still the main caregivers for children and elderly relatives. Most also have the double burden of <u>managing the home and family arrangements</u> on top of paid work responsibilities. And within the workplace three in five women have experienced bullying, sexual harassment or verbal abuse.

The gender gap in wellbeing was notably documented during the pandemic, as many women took on more domestic and caregiving responsibilities <u>on top of work</u>. But it was also noted that although women took a bigger hit to their wellbeing they were quicker to recover, <u>which seems to indicate thatwomen are more emotionally resilient than men.</u>

One of the factors that may contribute towards women's resilience is social connection. In one 2019 study, researchers found that women scored higher than men for positive relationships with others as well as <u>capacity for personal growth</u>. In essence, women tend to be better than men at getting support. They ask for help sooner and so are more likely to overcome adversity quicker.

Women have also been found to place greater value on social connections than men. Studies have found that <u>women's friendships are more intimate</u> – women favor face-to-face interactions that enable more self-disclosure and emotional support. Whereas men's friendships tend to be more <u>side by side</u>, <u>pursuing shared activities</u>. Think catching up watching a football match versus catching up over coffee. Again, this may explain the buffer to women's mental health.

HAPPINESS VERSUS PURPOSE Although women may not be as happy in the moment as men and face greater social inequality, <u>a recent study suggests</u> that women report having more purpose in their lives. And having meaning and purpose in life is associated with better health and living longer.

The study found that women tend to engage in more altruistic endeavors, such as supporting others and charity volunteering which leads to a greater sense of meaning and purpose.













However, the researchers also point out that this is likely linked to cultural norms of women being encouraged to put the needs of others first. While putting others first does not necessarily make you happier, having a sense of meaning in life definitely contributes towards happiness.

Given all this, women need to make time for themselves to protect their wellbeing. Here are four evidence-based ways to help you do this:

- **1. Try therapy** Having a place just for you, where you can talk about how you feel and express your emotions is important for your psychological wellbeing. Art-based therapies are <u>particularly beneficial for women</u> as are <u>group-based interventions</u> that allow women to speak openly with other women which can <u>reduce</u> <u>feelings of stigma and shame</u>.
- **2. Connect with nature** Spending time outdoors in natural settings can be very comforting. A recent study found that nature-based interventions are particularly healing for women who have experienced trauma or illness. Indeed, as women, our biology and values often align with the natural world. The term "Mother Earth" reflects the feminine tendency to be life-giving and nurturing. So make sure you factor some time outside in nature into your daily or weekly plans. A walk on the beach, a run through the woods or reading a book in the park, it all helps.
- 3. Move yourself Studies show that when women engage in regular physical activity it increases <u>self-acceptance and personal growth</u>. Aerobic exercise is particularly helpful for <u>cognitive health as women age</u>. High impact, weight-bearing exercise such as jumping and running improve <u>bone health for women in middle</u> age and regular moderate exercise, such as walking has been shown to improve symptoms of the menopause.
- 4. Cut down on alcohol Women face gender-specific risks related to alcohol, including a greater risk of being a <u>victim of violence</u> and more health-related issues such as <u>heart disease and breast cancer</u>. Women also become intoxicated quicker than men which can make them <u>more vulnerable</u>.

Given that women are twice as likely as men to experience anxiety, reducing or eliminating alcohol may be sensible. Indeed, research shows quitting alcohol can significantly improve women's health and happiness.

BREAST MILK ALTERNATIVE BOOSTS IQ AND EXECUTIVE FUNCTION IN KIDS

Breast Milk Alternative Boosts IQ and Executive Function in Kids - Neuroscience News

Summary: Researchers discovered a complex milk component that, when added to infant formula, can offer long-term cognitive benefits to children.

The study found that formula supplemented with milk fat globule membrane (MFGM) and lactoferrin for a year raised children's IQ by 5 points at age 5 ½. The effect was most noticeable in children's speed of processing information and visual-spatial skills.

This breakthrough offers a promising alternative for families who face challenges in breastfeeding.

Key Facts:

- The study used formula enriched with milk fat globule membrane (MFGM) and lactoferrin, components naturally present in mammalian milk, but often removed in commercial infant formula.
- Children who were fed this enriched formula had a 5-point IQ increase and displayed significantly improved executive function when tested at 5 ½ years old.













• The benefits of enriched formula were sustained long after the feeding ended, supporting the idea that early nutrition has a long-term impact on brain development.

Source: University of Kansas

Breast milk is widely acknowledged as the most beneficial nutrition for infants, but many families face medical or logistical challenges in <u>breastfeeding</u>. In the U.S., just 45% of infants continue to be exclusively breastfed at 3 months of age, according to the Centers for Disease Control.

WHY HOUSEHOLD MESS TRIGGERS STRESS AND ANXIETY https://neurosciencenews.com/anxiety-stress-messy-home-23874/

Summary: The presence of clutter can often lead to feelings of stress and anxiety. The brain tends to favor order, reducing the competition for attention and mental load.

While clutter affects many, women may experience heightened stress levels due to societal expectations and roles.

Not all clutter is bad; occasional disorder can spark creativity, but understanding its impact can lead to better mental well-being.

Key Facts:

- 1. A cluttered environment can lead to cognitive overload, as the brain struggles to prioritize attention amidst distractions.
- 2. Studies suggest that women might be more affected by clutter-induced stress than men due to societal roles and expectations.
- 3. While constant disorder is unproductive, perfectionism in cleanliness can also be harmful, linking to anxiety and poor mental health.

Source: The Conversation

Do you ever feel overwhelmed by the sight of <u>clutter and mess in your home</u>? Have you walked in the door only to feel overloaded by scattered papers, unwashed dishes and clothes in disarray? Maybe you've even had arguments because it bothers you more than it bothers you partner or housemates.

You're not alone. Many people report a messy house can trigger feelings of stress and anxiety.

So why do clutter and chaos make some of us feel so overwhelmed? Here's what the research says – and what you can do about it.

Cognitive overload When we're surrounded by distractions, our brains essentially become <u>battlegrounds</u> for attention. Everything competes for our focus.

But the brain, as it turns out, prefers order and "singletasking" over multitasking.

Order helps reduce the competition for our attention and reduces mental load. While some people might be better than others at <u>ignoring distractions</u>, distractable environments can overload our cognitive capabilities and memory.

Clutter, disorder and mess can affect more than just our cognitive resources. They're also linked to our eating, productivity, mental health, parenting decisions and even our willingness to donate money.













Are women more affected than men? Research suggests the detrimental effects of mess and clutter may be more pronounced in women than in men.

One <u>study</u> of 60 dual-income couples found women living in cluttered and stressful homes had higher levels of cortisol (a hormone associated with stress) and heightened depression symptoms.

These effects remained consistent even when factors like marital satisfaction and personality traits were taken into account. In contrast, the men in this study seemed largely unaffected by the state of their home environments.

The researchers theorised that women may feel a greater responsibility for maintaining the home. They also suggested the social aspect of the study (which involved giving home tours) may have induced more fear of judgement among women than men.

We will all live with clutter and disorganisation to some degree in our lives. Sometimes, however, significant clutter problems can be linked to underlying mental health conditions such as <u>obsessive-compulsive</u> <u>disorder</u>, <u>hoarding disorder</u>, <u>major depressive disorder</u>, <u>attention deficit hyperactivity disorder</u>, and <u>anxiety</u> disorders.

This raises a crucial question: which came first? For some, clutter is the source of anxiety and distress; for others, poor mental health is the source of disorganisation and clutter.

Not all mess is a problem It's important to remember clutter isn't all bad, and we shouldn't aim for perfection. Real homes don't look like the ones in magazines.

In fact, disorganised spaces can result in increased creativity and elicit fresh insights.

Living in constant disorder isn't productive, but striving for perfectionism in cleanliness can also be counterproductive. Perfectionism itself is associated with feeling overwhelmed, anxiety and poor mental health.

Mess makes me anxious so what can I do about it? It's important to remember you have some agency over what matters to you and how you want to prioritise your time.

One approach is to try to reduce the clutter. You might, for example, have a dedicated de-cluttering session every week. This may involve hiring a cleaner (if you can afford it) or playing some music or a podcast while tidying up for an hour with your other household members.

Establishing this routine can reduce clutter distractions, ease your overall mental load and alleviate worry that clutter will spiral out of control.

You can also try micro-tidying. If don't have time for a complete cleanup, commit just five minutes to clearing one small space.

If the clutter is primarily caused by other household members, try to calmly discuss with them how this mess is affecting your mental health. See if your kids, your partner or housemates can negotiate some boundaries as a household over what level of mess is acceptable and how it will be handled if that threshold is exceeded.

It can also help to develop a self-compassionate mindset.













Mess doesn't define whether you are a "good" or "bad" person, and, at times, it may even stimulate your <u>creativity</u>. Remind yourself that you deserve success, meaningful relationships and happiness, whether or not your office, home or car is a mess.

Take comfort in <u>research</u> suggesting that while disorganized environments can make us susceptible to stress and poor decision-making, your mindset can buffer you against these vulnerabilities.

If clutter, perfectionism or anxiety has begun to seem unmanageable, talk with your GP about a referral to a <u>psychologist</u>. The right psychologist (and you may need to try a few before you find the right one) can help you cultivate a life driven by values that are important to you.

Clutter and mess are more than just visual nuisances. They can have a profound impact on mental wellbeing, productivity and our choices.

Understanding why clutter affects you can empower you to take control of your mindset, your living spaces and, in turn, your life.











