

New Research From Psychological Science

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[Causal Inference About Good and Bad Outcomes](#)

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People's experiences with good or bad outcomes can influence their learning, and the effects might depend in part on their beliefs about what causes or influences the outcomes, this research suggests. Participants (an MTurk sample) imagined that they were mining for gold and had to make several choices between yellow and green mines (e.g., participants saw a green and a yellow mine and pressed a button to indicate which one they would explore to obtain gold and then repeated this for several trials). After making each choice, participants received either gold or plain rocks as rewards from which they could learn the rates of rewards for each mine (e.g., 30% for the yellow and 70% for the green). However, in some cases they were told that a bandit could intervene and change the outcome negatively (less gold) or a tycoon could intervene and change the outcome positively (more gold). By using computational modeling, the authors showed that when an intervening character produced the negative outcomes, participants learned more about the rate of reward from positive outcomes, and vice versa. Also, learning rates were lower (but higher than zero) when participants believed that the hidden agent intervened. These effects occurred both when participants knew and when they did not know the percentage of trials in which the agent would intervene. This indicates that the extent to which good and bad outcomes affect learning is influenced by both the salience of positive or negative outcomes and the attribution of those outcomes to hidden causes or agents. Understanding the role of causal inferences about good and bad outcomes in learning may help to understand systematic biases with real-world consequences (e.g., excessive risk aversion or risk-seeking behaviors).

[Preschoolers Optimize the Timing of Their Conversational Turns Through Flexible Coordination of Language Comprehension and Production](#)

Laura Lindsay, Chiara Gambi, and Hugh Rabagliati ?



In conversations, people are able to take turns speaking with the smallest possible silent gap between them. To examine how this ability develops, Lindsay and colleagues tested preschoolers and adults. Participants played a maze game in which they conversed with an avatar (e.g., Peter Pan) who was trying to find a parrot or a parrot and a tiger. Anytime the avatar reached a fork in the road, he encountered two familiar cartoon characters (e.g., Po and Boots) and the animals hiding behind them. The avatar then asked the participant where one of the animals was hiding, mentioning the relevant character either earlier in his question (e.g., “Is Po hiding the parrot?”) or later (e.g., “Is the parrot hiding behind Po?”). Analysis of participants’ response times indicated that both children and adults seemed to prepare their responses ahead of time on the basis of their predictions and that they showed smaller silent gaps when the question gave critical information earlier. The benefit of providing information earlier in the questions was particularly salient for both children and adults when the avatar was looking for only one animal. These results suggest that preschoolers are able to optimize the timing of their conversation turns and that they already show the ability to use language comprehension to predict information and formulate a response. Hence, timeliness of a child’s response may allow adults to monitor the child’s degree of understanding and thus provide appropriate feedback to enhance his or her language and knowledge acquisition.

[Property Damage and Exposure to Other People in Distress Differentially Predict Prosocial Behavior After a Natural Disaster](#)

Tom Vardy and Quentin D. Atkinson



After individuals experience a natural disaster, do they show more altruism and cooperation or less? Vardy and Atkinson tested individuals from two communities on the island of Tanna, Vanuatu, 8 months before and 4 months after experiencing a cyclone that destroyed most of Tanna’s buildings and left locals without shelter, electricity, or food. Participants were given two cups and had to decide how to distribute 10 coins. They made different types of decisions based on combinations of whether they could allocate money (a) to people from their own or another religion, (b) to people from their own or another village, and (c) to themselves. After the cyclone, participants kept more money for themselves than they gave to others, gave more to individuals with the same religion as theirs, and showed no differences in how they split the money between members of their own village and members of a different village with the same religion. Participants who experienced property damage were less likely to give to others, but participants who had been exposed to other people in distress were more likely to. This indicates that individuals might adjust their prosocial behavior in response to natural disasters, but the nature of the adjustment depends on how the disaster affected them. These findings are important for predicting postdisaster cooperative behaviors.