IS COGNITIVE DISSONANCE ACTUALLY A THING?

A foundational 1956 study of the concept, focussed on a U.F.O. doomsday cult, has been all but debunked by new research.

By Shayla Love

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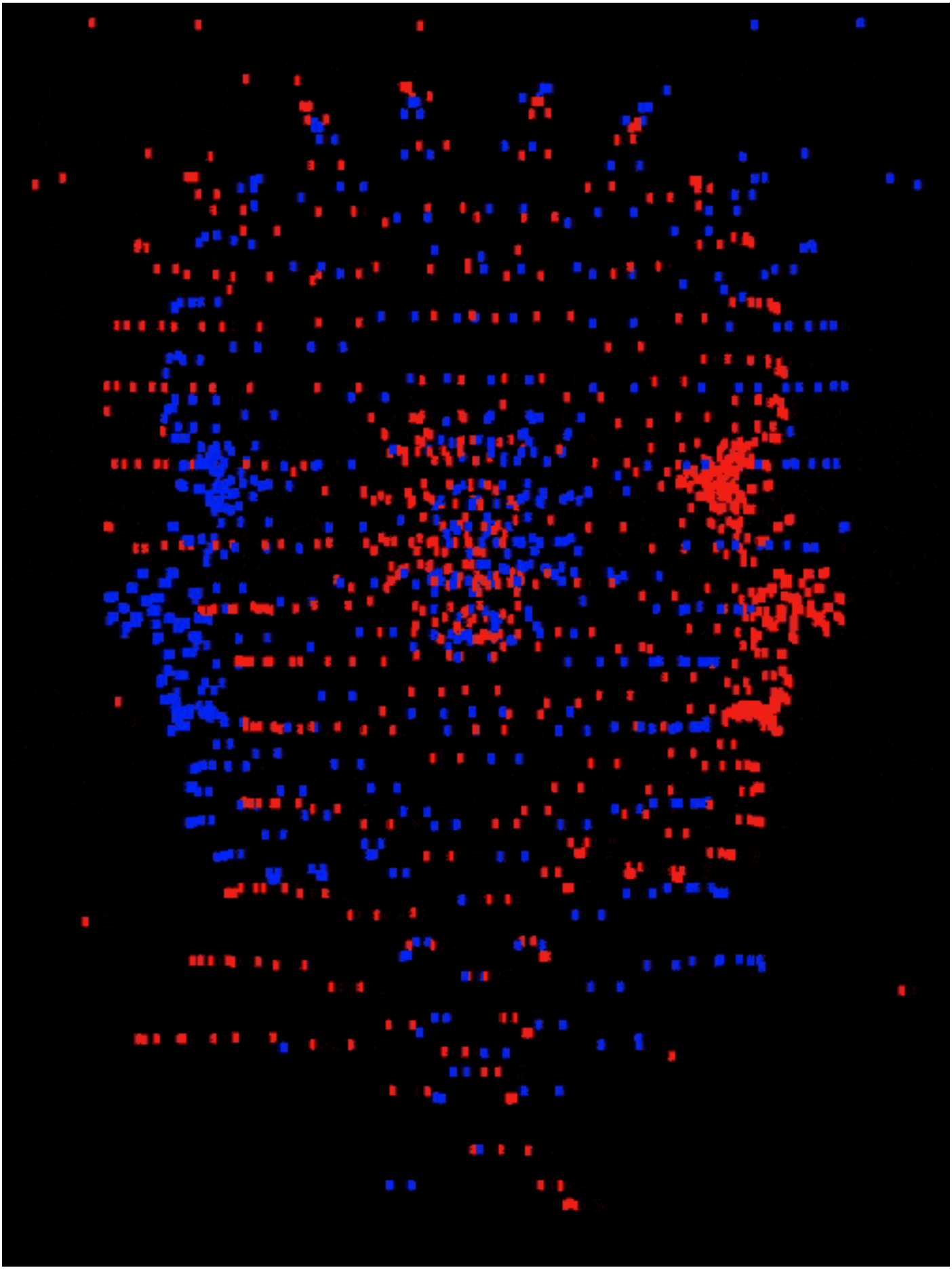

Illustration by Vivek Thakker

In 1934, an 8.0-magnitude earthquake hit eastern India, killing thousands and devastating several cities. Curiously, in areas that were spared the worst destruction, stories soon spread that an even bigger disaster was on its way. Leon Festinger, a young American psychologist at the University of Minnesota, read about these rumors in the early nineteen-fifties and was puzzled. Festinger didn't think people would voluntarily adopt anxiety-inducing ideas. Instead, he reasoned, the rumors could better be described as "anxiety justifying." Some had felt the earth shake and were overwhelmed with fear. When the outcome—they were spared—didn't match their emotions, they embraced predictions that affirmed their fright.

Festinger was developing the now ubiquitous theory of cognitive dissonance. He argued that, when people encounter contradictions, they experience so much discomfort that they feel an urgent need to reduce it. In response, a person can update his views—or he can misinterpret, and even reject, whatever information has challenged his beliefs. He might seek out people who agree with him; he might try to persuade those who don't. "A man with a conviction is a hard man to change," Festinger later wrote. "Tell him you disagree and he turns away. Show him facts or figures and he questions your sources. Appeal to logic and he fails to see your point." Cognitive dissonance helped explain human choices that otherwise seemed irrational, stubborn, and shortsighted: these were, in fact, attempts to reduce psychological distress.

In 1954, while Festinger was refining his theory, he stumbled upon a rare opportunity to observe the effects of dissonance. A newspaper reported that a small Chicago-area group, the Seekers, were receiving messages from aliens about an impending flood that would submerge North America. Festinger and two colleagues, plus several assistants, went undercover. In an influential 1956 book, "When Prophecy Fails," the trio wrote that the Seekers committed to the prediction so fully that some quit their jobs while emptying their savings accounts.

When no flood or aliens arrived, Festinger and his colleagues wrote, the Seekers tried to reduce the dissonance they were experiencing by recommitting to their belief and evangelizing—a seeming attempt to bring others into alignment with their views. "Their research resulted in convincing, if not definitive, confirmation of their hypotheses," a reviewer from the *American Sociological Review* wrote. In 1957, Festinger published another book, "A Theory of Cognitive Dissonance," which described laboratory studies of people acting to resolve dissonance.

It's hard to overstate how influential the theory is today. "You almost certainly can't get through an introductory psychology class without hearing about cognitive dissonance," Adam Mastroianni, writer of the psychology Substack "Experimental History," told me. The phrase has been invoked to explain why environmentalists eat meat and why some Trump supporters play down the President's connections to Jeffrey Epstein. Last month, on social media, memes making fun of Cynthia Erivo, the lead actress in the "Wicked" films, for rushing to protect Ariana Grande from a fan, spread on social media. The musician SZA said that we'd eventually look back on these posts and experience cognitive dissonance.

Lately, though, the foundational case study of the Seekers has been contending with its own kind of dissonance. Until this year, a box of Festinger's documents—communications with colleagues, research notes, transcribed telephone conversations—in his archives at the Bentley Historical Library in Ann Arbor, Michigan, remained sealed at the request of his widow, Trudy. When the files were released, a political scientist named Thomas Kelly discovered that the researchers, who were ostensibly neutral observers, actually wielded a profound level of influence over the Seekers. In a recent peer-reviewed paper, Kelly noted that there were at least five paid observers in addition to the three researchers; at some Seekers meetings, half of those present may have been infiltrators. One research assistant pretended to dream about a flood and receive psychic messages; one of Festinger's co-authors, Henry Riecken, was revered by the group's leaders. When the flood didn't come, Riecken apparently encouraged the Seekers to double down on their beliefs, Kelly told me in November. "Here's this canonical study, and it's backwards," Kelly said. "This is misleading people about the dynamics of new religions and social psychology."

n the years after Festinger co-authored "When Prophecy Fails," his stature grew. In a

In study, he and a colleague gave Stanford undergraduates excruciatingly boring tasks: moving spools on and off a tray, rotating pegs on a pegboard. Afterward, they were instructed to tell the next participant that the tasks were enjoyable, and in return they were compensated either a dollar or twenty dollars. Right after the students delivered this message, they were asked what they actually thought of the task. Oddly enough, those who had been paid a dollar rated it as more enjoyable than those who were paid twenty dollars.

Joel Cooper, a psychologist at Princeton, remembered reading the study when he was an undergraduate. He was so surprised that he missed his subway stop. "That was unimaginable to the field of psychology at the time," Cooper said. The prevailing dogma was that people, like Pavlov's dogs, responded based on rewards. In this instance, those who were rewarded more said they liked the task less.

Festinger thought that cognitive-dissonance theory could explain. In his view, those who had been given more money could justify to themselves why they had lied to their fellow-participants—because they had been paid. Those who'd received only the measly dollar, in contrast, lacked a good reason to have lied, and thus had more cognitive dissonance to resolve. They did so, Festinger thought, by changing their attitude about the task. In another 1959 study, two students of Festinger's, Elliot Aronson and Judson Mills, reported that the more unpleasant it was for a person to join a group, the more they would later say they liked the group. They theorized that group members were justifying the hazing they had tolerated. Cognitive dissonance seemingly provided a tidy account of a wide variety of counterintuitive behavior.

The leader of the Seekers was Dorothy Martin, a fifty-four-year-old housewife who dabbled in occult and Scientology circles. In August, 1954, she began telling people about a flood that would take place on December 21st. In the fall of that year, Festinger and his colleagues joined the group. Martin initially said that aliens would arrive at 4 P.M. on December 17th to save them; then the pickup was moved to midnight on the 18th, then again to Christmas Eve. Then the Seekers began claiming that the group's actions had "spread so much light" that the flood was called off. In the researchers' telling, they also ramped up their proselytizing by reaching out to the press.

Kelly, the political scientist, read "When Prophecy Fails" a couple of years ago, out of personal interest. He told me that he was troubled by its simplistic conclusions; his research has shown him that people are messy actors, capable of stubbornness but also of quickly dropping their beliefs after political regimes fall. In 2023, he perused the Festinger archive during a trip to Ann Arbor to visit family. He learned about the box that was sealed until this year, and, in May, he returned to read its contents. What he found disturbed him.

The papers suggested that, when the researchers posed as Martin's followers, they made the Seekers more convinced of their existing views. Martin saw great significance in the sudden appearance of the newcomers. One of the three co-authors, Stanley Schachter, wrote that a physician in the group "was clearly impressed by these people who, at the last moment for no apparent reason were clearly attracted to the movement. . . . Oy! Have we increased conviction!"

Martin took a liking to Riecken in particular, calling him Brother Henry, and she is said to have told him that he was "the favorite son." Riecken wrote that he probably "could have taken over the movement." In the crucial moment when the flood did not arrive, Riecken lashed out at Martin, calling her dense. Outside of her house, Charles Laughead, the physician, confided in Riecken that he had struggled with his own beliefs. Riecken then asked Laughead to reassure him. As Kelly writes in his paper, "Laughead delivered a dramatic speech about the importance of keeping faith, which Riecken interpreted as confirmation of Festinger's theory of cognitive dissonance." After that, Riecken claimed that his faith had been restored; Martin, soothed, channelled a psychic message explaining how the flood had been averted. Riecken continued to take advantage of his privileged status in the group: he said he was an "earthly verifier" who needed to interview each person and report back to the aliens. "Henry enjoyed himself to the hilt with additional horseshit," Schachter wrote.

Kelly also questioned Festinger, Schachter, and Riecken's claim that the Seekers redoubled their efforts to spread their message. Before the prophecy failed, Laughead was already outspoken enough about aliens that he lost a job at the Michigan State University health center. He and Martin had both written articles for magazines, and the group had sent a press release to journalists. Martin had also rattled several parent-teacher associations by sharing her views with local children.

Other researchers tried to verify the theory behind "When Prophecy Fails." In 1962, researchers examined the Church of the True Word, which had foretold a nuclear disaster. Even when the end never came, the group remained intact, and didn't change its beliefs. "Clearly, either the theory is wrong, or it is incomplete," the authors wrote. A 1983 study reported that a millenarian Baha'i sect, which also prophesied a nuclear war that never occurred, eventually stopped its activities because its "faith was badly shaken."

Cognitive-dissonance theory faltered again in 2024. In an effort to replicate research from the eighties, a team of psychologists across thirty-nine labs instructed nearly five thousand college students to write an essay in favor of increasing school tuition, a position they were presumably against. Some were told they had to take this stance; others were allowed to make their own decision. Cognitive-dissonance theory holds that people in the voluntary group would have been more likely to update their opinions on school costs: they couldn't justify having written dissonant essays on the ground they'd been forced. But the researchers didn't detect any difference: the two groups changed their minds at similar rates.

Some who study cognitive dissonance doubted these findings. Steven Heine, a psychologist at the University of British Columbia, questioned whether all the labs involved in the replication followed the precise protocols required by the study design. Cooper, the Princeton researcher, noted variations between labs. For example, not all the schools charged tuition, so some students wrote about other subjects. "They did a terrible job," Cooper said. But Willem Sleegers, a social psychologist at Tilburg University and a co-author of the study, pointed out that early proponents of the theory used very similar experimental setups to make their case. If cognitive dissonance really influenced behavior, "we should have been able to find it," he told me. "We didn't. So we should be updating our beliefs."

The concept of cognitive dissonance is appealing, in part, because it lends a name to a recognizable state. I have felt it, I've seen it in others, and it seems intuitively true that people respond in some way when confronted with it. Kelly, the political scientist, believes that it's a real sensation. But a person's reactions to cognitive dissonance seem more fragmented than the theory accounts for. The idea lacks predictive power, Sleegers said. "It's still very vague," he told me.

Kelly's research showed that Martin walked back her claims in 1955, saying that she'd never expected a literal U.F.O. rescue—but she remained involved in occult groups for the rest of her life. He concluded that she neither increased her proselytizing about the flood nor abandoned her supernatural convictions. Can cognitive dissonance really explain how her wide-ranging beliefs evolved? As Festinger himself wrote, "it would be unfortunate indeed if the concept of dissonance were used so loosely as to have it encompass everything, thus depriving it of meaning entirely."

In studies of cognitive dissonance with open-ended designs, participants seem to relieve their discomfort in a diversity of ways. In a 2024 study, supporters of Donald Trump were asked about allegations that the President had engaged in sexual misconduct and illegal activity. Some rejected the claims as lies; others said that they didn't care about the President's sex life, or that all Presidents are involved in "unscrupulous activity that we don't hear about." A minority said that they would no longer support him. Perhaps it's true that they were all acting to reduce their cognitive dissonance. But how successful is a theory of human behavior if it can't tell you how people will behave?

In mid-November, I called Aronson, the student of Festinger's who'd conducted research on hazing and dissonance. At ninety-three years old, he is one of the few people who were in Festinger's direct orbit when he was developing his theory. During a seminar in 1957, Aronson was impressed by Festinger's "intelligence, his fervor, and his nastiness." Festinger was a demanding teacher. Aronson became his research assistant.

Aronson agreed that many strategies can reduce dissonance. How could you know which a person would choose? Their early experiments, he said, weren't designed to answer that. "You're not asking the question 'What pathways would people choose if they had their choice?' " Aronson told me. "You're saying, 'Does cognitive dissonance exist, and are people reducing it?' "

Aronson said that because "When Prophecy Fails" was an observational study—it did not take place in the controlled setting of a lab—he has long considered it a weak example of cognitive-dissonance research. But he insisted that the theory will remain a useful way to understand human behavior. He credited it with teaching us

that our actions—even strange and stubborn ones—are more than automatic responses to rewards. Humans are deliberative; they engage in complex cognitive processes even when waiting for U.F.O.s. "Even if it turned out that none of those doomsday cults ever tried to proselytize, it wouldn't cause the theory to be debunked," Aronson said. In his view, a large number of laboratory studies back up the theory of cognitive dissonance, so the new revelations about "When Prophecy Fails" didn't change his mind.

I asked him how the theory could be falsified, since any choice a person made could be attributed to dissonance. "It's hard to disprove anything," he said.

By the mid-sixties, Festinger had stopped focussing on cognitive-dissonance theory. He studied visual perception and eventually anthropology. But there are clues that his intuitions about how people behave remained consistent. In his archives, there's a handwritten note recalling that his father, who grew up in an Orthodox Jewish family in Warsaw, wandered into the city to eat ham at the age of fifteen. He wanted to know if God would punish him for eating food that wasn't kosher. According to the story, Festinger wrote, "when nothing happened to him he became a confirmed atheist." But the story left Festinger with doubts: it wouldn't make sense to subject yourself to God's wrath if you weren't already sure of the outcome. A more reasonable explanation, Festinger thought, was that his father must have reduced his cognitive dissonance before eating the ham—by losing his belief in God. "I imagine that, on other grounds, he had already rejected religion and the way of life it implied," Festinger wrote.

I asked Aronson if Festinger seemed to view people as rational deep down, seeking coherence in what looked like chaos. "I think he thought people were capable of rational behavior, and used rational behavior a good deal of the time," Aronson said. "But underneath that is the fact that we are rationaliz*ing* human beings." ♦

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