

Study: People who hoard toilet paper are just looking for a symbol of safety

Enlarge / People who felt more threatened by COVID-19 and ranked high on scales of emotionality and conscientiousness were most likely to hoard toilet paper when the coronavirus shutdowns began in March.

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Back in March, we reported on the strange phenomenon of people scrambling to stockpile toilet paper as the coronavirus pandemic led to widespread adoption of shelter-in-place and social-distancing policies. Now German scientists have pinpointed a couple of key personality traits that appear to be linked to this kind of hoarding behavior, per a new paper in the journal PLOS ONE.

Consumer behavior researcher Kit Yarrow told Ars in March that toilet paper hoarding is at least partly an attempt to gain a sense of control when the world feels uncertain and dangerous. “When we feel anxious, which I think all of us do right now—it would be sort of abnormal to not feel a little anxious—the antidote to anxiety is always control,” she said. “And since we can’t really control the track of this disease, we turn to what we can control, and that’s why people are shopping. It’s like, ‘Well, I feel like I’m doing something, I feel like I’m preparing. I feel like I’m taking

control of the thing I can control, which is stocking up.'"

As for why people hoarded toilet paper in particular, according to Yarrow, this kind of panic buying could be a case of our social primate brains reacting to newsfeeds full of striking but sometimes disorienting visual cues—like images of store shelves devoid of paper products. "Toilet paper sort of became the thing that the media in particular was really focused on, and that then cued people into thinking about [it]," she said.

The German researchers set out to find some solid empirical evidence to support the kinds of hypotheses offered by Yarrow and others. They noted that, in some cases, demand for toilet paper shot up by a whopping 700 percent, leading to widespread shortages in supermarkets. Furthermore, "the resulting scarcity of toilet paper in some households has led to problematic consequences, such as the clogging of outfall pipes after people started using products other than toilet paper," they wrote.

The team used social media to recruit 996 adults across 22 countries and had them complete an online personality inventory rating six domains: emotionality (fearfulness, anxiety, dependence, sentimentality); conscientiousness (organization, diligence, prudence, perfectionism); honesty-humility (sincerity, fairness, modesty); extraversion (social self-esteem, social boldness, sociability); agreeableness (patience, forgiveness, gentleness, flexibility), and openness to experience (inquisitiveness, creativity, unconventionality).

Enlarge / All your toilet paper are belong to me.

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Participants included information on their demographics, quarantine behaviors, and how much they perceived COVID-19 to be a threat. They were also asked how frequently they shopped for toilet paper in the past two weeks, how many packages they bought, how many rolls were currently stockpiled in their homes, and whether this was a typical amount. The data collection time frame spanned March 23 to March 29.

One prior study had examined this behavior in light of the honesty-humility dimensions in UK residents, and it found preliminary evidence that hoarding was driven by “a lack of solidarity.” But that study was not international and did not examine the other personality domains, “which leaves the role of personality, defined more broadly, unanswered,” the German authors wrote. Their own findings contradicted the UK study: honesty-humility did not appear to be a strong predictor for hoarding toilet paper in the PLOS ONE study.

“Toilet paper functions as a purely subjective symbol of safety.”

The researchers found the strongest predictor of stockpiling behavior was how much people felt threatened by COVID-19; the more fearful they were, the more likely they were to hoard the product. A person's emotionality, in turn, is predictive of how threatened they feel, while people who rank highly in conscientiousness were more likely to have stockpiled toilet paper. Older people tend to stockpile toilet more than young folks—perhaps because they are more at risk from the disease and hence more likely to opt for strict self-isolation—and Americans did so more than Europeans.

As Yarrow pointed out to Ars, toilet paper hoarders are not really bad, selfish people; they're just scared. The German team concurred. "Even the most humble and moral individuals might stockpile toilet paper as long as they feel sufficiently threatened by the pandemic," they wrote. "Given that stockpiling is objectively unrelated to saving lives or jobs during a health crisis, this finding supports the notion that toilet paper functions as a purely subjective symbol of safety."

That said, the authors caution that the variables they included in their analysis account for just 12 percent of the variability observed in the hoarding of toilet paper. "This suggests that how much people feel personally threatened by COVID-19 also depends on psychological factors not accounted for in our study, or on malleable external factors such as the risk management by and trust in local authorities," they wrote. "We are still far away from understanding this phenomenon comprehensively."

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