Nudges fail more often than is reported, experts warn

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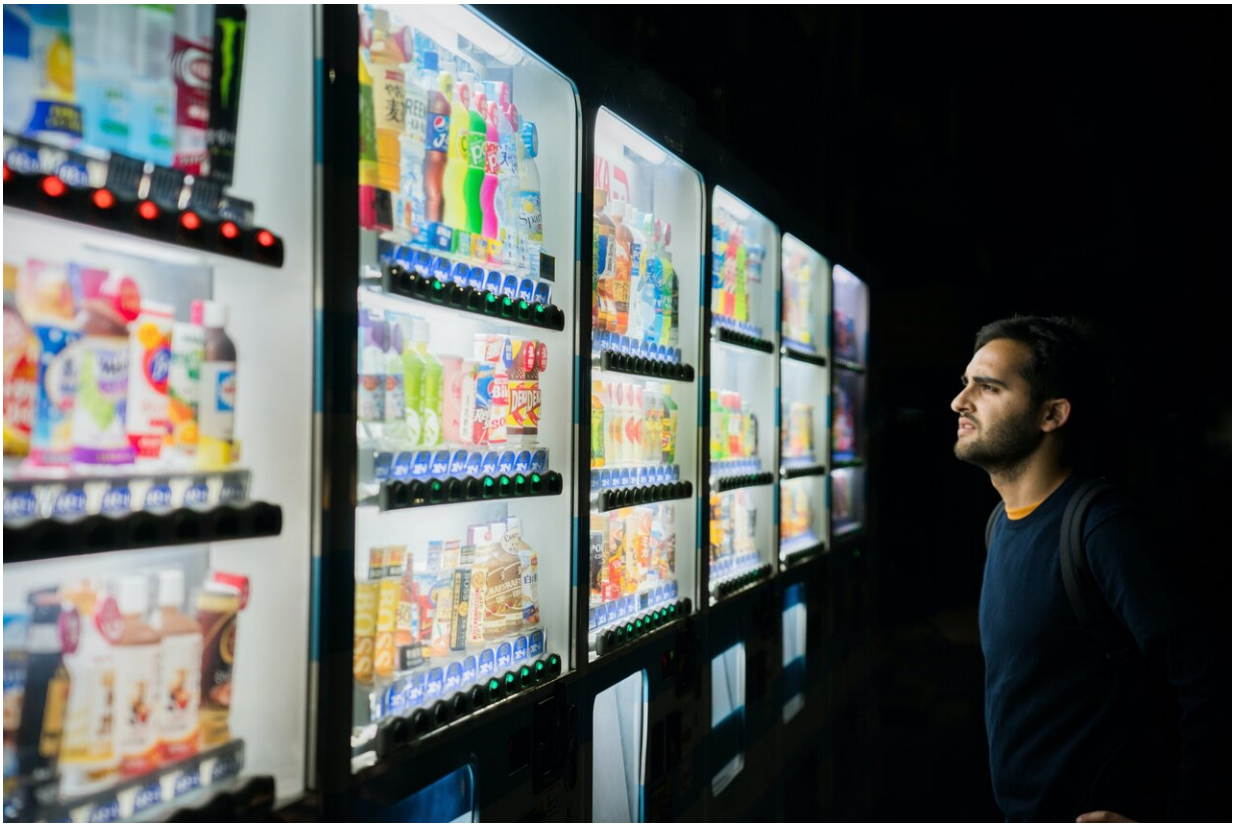

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Research led by Queen Mary University of London has shown that despite the widespread use of behavioral interventions across society, failed interventions are surprisingly common.

The researchers looked at published failed behavioral interventions across all areas that impact society, from healthy eating and organ donation, to tax compliance. They showed that whilst any type of behavioral intervention, applied in any type of setting, could be liable to fail, certain types of intervention were more likely to fail.

Current behavioral change programs focus largely on promoting successes. This new study suggests that improved understanding of why and how interventions fail could help develop successful behavioral interventions in future, and avoid wasting time and money on interventions that will likely fail.

For the project, the researchers analyzed 65 articles, published between 2008 and 2019, which identified failed behavioral interventions, including nudges. They identified eight different types of failures in total, which include 'backfires' whereby the introduction of the nudge intervention made the behavioral problem worse rather than better.

The most common type of interventions that resulted in failures were those involving social norming or social comparisons, where individuals are provided with information about the behavior of their peers in order to encourage a desired behavior change. Interventions that involved the provision of information through letters or text messaging, accounted for almost a quarter of the failed studies.

Dr. Magda Osman, Reader in Experimental Psychology at Queen Mary University of London, said: "Our analysis provides the first attempt to systematically examine behavioral interventions that fail. We have shown that failures are quite common and can occur with nudges applied in any type of setting. We found that there are different types of failures, from interventions that simply don't achieve any behavioral change, to those that achieve negative changes such as backfire effects."

In the article, the researchers also show the benefits of using computational causal modeling techniques to map out the different factors that can influence specific behavioral interventions and their likelihood of success. This allows researchers and decision-makers a way of mapping out in advance what might work, as well as what might undermine the intervention ahead of time.

Dr. Osman, added: "We believe that causal analysis can advance existing behavior change frameworks as they allow us to formally model behavior change problems and the context in which these interventions are situated. By incorporating these approaches into the early design of behavioral interventions, we can begin to understand what factors are relevant to the success of the intervention and how the intervention could influence these factors, and even prepare precautionary measures to help avoid failure."

The use of psychological insights to motivate people to change their opinions, attitudes and behaviors goes back at least as far as the 1950's when it was referred to as behavioral engineering. Many public and private institutions now use behavioral change techniques to influence positive change, from improving dietary choices to helping people save more for their retirement. More recently, governments have sought advice from experts on behavioral interventions to ensure public compliance with their proposed strategies to manage the COVID-19 pandemic, for example on behaviors such as social distancing and wearing masks.

Dr. Osman, said: "It's clear to see that there's currently a great appetite for the use of behavioral techniques in society, and we're seeing terms like nudge being widely used in both scientific and public settings. However, the behavioral change enterprise disproportionately focuses on promoting successes at the expense of examining the failures of behavioral change interventions. Understanding why behavioral changes

fail, and being able to anticipate possible types of failures when designing interventions could help to save time and public funds invested in these techniques, and overall increase their success in achieving the desired behavioral change."

The study is published in *Trends in Cognitive Sciences*.

More information: Learning from behavioural changes that fail, *Trends in Cognitive Sciences*, 2020.

Provided by Queen Mary, University of London