

## Easy = True

### How 'cognitive fluency' shapes what we believe, how we invest, and who will become a supermodel

By Drake Bennett | January 31, 2010

Imagine that your stockbroker - or the friend who's always giving you stock tips - called and told you he had come up with a new investment strategy. Price-to-earnings ratios, debt levels, management, competition, what the company makes, and how well it makes it, all those considerations go out the window. The new strategy is this: Invest in companies with names that are very easy to pronounce.

This would probably not strike you as a great idea. But, if recent research is to be believed, it might just be brilliant.

One of the hottest topics in psychology today is something called "cognitive fluency." Cognitive fluency is simply a measure of how easy it is to think about something, and it turns out that people prefer things that are easy to think about to those that are hard. On the face of it, it's a rather intuitive idea. But psychologists are only beginning to uncover the surprising extent to which fluency guides our thinking, and in situations where we have no idea it is at work.

Psychologists have determined, for example, that shares in companies with easy-to-pronounce names do indeed significantly outperform those with hard-to-pronounce names. Other studies have shown that when presenting people with a factual statement, manipulations that make the statement easier to mentally process - even totally nonsubstantive changes like writing it in a cleaner font or making it rhyme or simply repeating it - can alter people's judgment of the truth of the statement, along with their evaluation of the intelligence of the statement's author and their confidence in their own judgments and abilities. Similar manipulations can get subjects to be more forgiving, more adventurous, and more open about their personal shortcomings.

Because it shapes our thinking in so many ways, fluency is implicated in decisions about everything from the products we buy to the people we find attractive to the candidates we vote for - in short, in any situation where we weigh information. It's a key part of the puzzle of how feelings like attraction and belief and suspicion work, and what researchers are learning about fluency has ramifications for anyone interested in eliciting those emotions.

"Every purchase you make, every interaction you have, every judgment you make can be put along a continuum from fluent to disfluent," says Adam Alter, a psychologist at the New York University Stern School who co-wrote the paper on fluency and stock prices. "If you can understand how fluency influences judgment, you can understand many, many, many different kinds of judgments better than we do at the moment."

A handful of scholars have already started to explore the ways that advertisers, educators, political campaigners, or anyone else in the business of persuasion can use these findings. And some of the implications are surprising. For example, to get people to think through a question, it may be best to present it less clearly. And to boost your self-confidence, you may want to set out to write a dauntingly long list of all the reasons why you're a failure.

Our sensitivity to - and affinity for - fluency is an adaptive shortcut. According to psychologists, it helps us apportion limited mental resources in a world where lots of things clamor for our attention and we have to quickly figure out which are worth thinking about.

Most of the time, the shortcut works pretty well. If something feels notably easy to decipher, whether it's a piece of text or the shape of an object or the particulars of a person's face, there's a good chance it's because we've previously done the work of processing it, and that it's something we've encountered before. Cognitive fluency signals familiarity - some psychologists argue that the eerie experience of déjà vu is simply when we're fooled by the unexpected ease of taking in a piece of sensory information, and interpret that as a memory of having been there or seen it before.

An instinctive preference for the familiar made sense in the prehistoric environment in which our brains developed, psychologists hypothesize. Unfamiliar things - whether they were large woolly animals, plants we were thinking of eating, or fellow human beings - needed to be carefully evaluated to determine whether they were friend or foe. Familiar objects were those we'd already passed judgment on, so it made sense not to waste time and energy scrutinizing them.

According to Norbert Schwarz, a leading fluency researcher, the late psychologist Robert Zajonc used to explain the evolutionary logic behind this tendency succinctly. "He'd say, 'If it is familiar, it has not eaten you yet.' "

"That gut feeling of familiarity determined by ease of processing is a very effective shorthand," says Schwarz, a psychologist at the University of Michigan. "Having to sit down and analyze every time whether something is familiar would not be a good idea."

Our bias for the familiar, however, can be triggered in settings where there's little purpose to it. In the 1960s, Zajonc did a series of experiments that uncovered what he dubbed the "mere exposure" effect: He found that, with stimuli ranging from nonsense words to abstract geometric patterns to images of faces to Chinese ideographs (the test subjects, being non-Chinese speakers, didn't know what the ideographs meant), all it took to get people to say they liked certain ones more than others was to present them multiple times.

More recent work suggests that people assign all sorts of specific characteristics to things that feel familiar. Like beauty. Psychologists have identified what they call the "beauty-in-averageness" effect - when asked to identify the most attractive example of something, people tend to choose the most prototypical option. For example, when asked to identify the most appealing of a group of human faces, people choose the one that is a composite of all the others. And it's not just faces: Studies have found a similar tendency when people are asked to identify what makes for an attractive dog or car or watch. Some psychologists suggest that much of what we perceive as beauty is just the fact that the most prototypical faces and dogs and watches are the easiest to process, because they share the most with all the other faces and dogs and watches that we've seen and stored in our perceptual inventory.

"These faces fit right in there. In effect, you've already learned the facial features, so people like them," says Piotr Winkielman, a psychologist at the University of California San Diego who has done research on fluency and attractiveness.

Winkielman doesn't claim that beauty is entirely explained by fluency, but he argues that the effect is powerful, all the more so because we're unaware of it. Indeed, the power of the effect, combined with the ease with which psychologists can fool people into mistaking the sensation of fluency for actual familiarity, helps explain the current popularity of research into the phenomenon.

"People are very sensitive to the experience of ease or difficulty, but very insensitive to where that feeling comes from," says Schwarz.

One thing that fools us, for example, is font. When people read something in a difficult-to-read font, they unwittingly transfer that sense of difficulty onto the topic they're reading about. Schwarz and his former student Hyunjin Song have found that when people read about an exercise regimen or a recipe in a less legible font, they tend to rate the exercise regimen more difficult and the recipe more complicated than if they read about them in a clearer font.

Playing with legibility can also change perceptions in subtler, less predictable ways. Alter and Daniel Oppenheimer, a psychologist at Princeton University who also co-wrote the stocks and fluency paper, have found that when a personal questionnaire is presented in a less legible font, people tend to answer it less honestly than if it is written in a more legible one. Alter and two other psychologists, Simon Laham and Geoffrey Goodwin, also found that, when presenting people with written descriptions of moral transgressions, increasing the contrast between text and background to make it easier to read the description made people more forgiving.

To Alter, it's a demonstration not so much of the power of fluency but of its opposite, what psychologists call "disfluency." Even at the level of a trickier font, the experience of disfluency makes people wary and uncomfortable. That sensation, Alter argues, is enough to make them less forthcoming and also less forgiving in their moral judgments.

"Disfluency functions as a cognitive alarm," Alter says. "It sets up a cognitive roadblock and makes people think, and it triggers a sense of risk and concern."

It isn't just visual cues that have this sort of effect. Matthew McGlone, a psychologist at the University of Texas, has found that auditory cues can shape people's perception of truth. McGlone did a study in which he presented subjects with a series of unfamiliar aphorisms either in rhyming or nonrhyming form: "Woes unite foes," for example, versus "Woes unite enemies." He found that people tended to see the rhyming ones as more accurate than the nonrhyming ones, despite the fact that, substantively, the two were identical. Phrases that are easier on the ear aren't just catchy and easy to remember, McGlone argues, they also feel inherently truer. He calls it "the rhyme-as-reason effect."

The persuasive power of repetition, clarity, and simplicity is something that people who set out to win others' trust - marketers, political candidates, speechwriters, suitors, and teachers - already have an intuitive sense of if they're good at what they do. What the fluency research is showing is just how profound the effect can be, and just how it works.

And some of the more interesting ramifications of the new work come from the suggestion that disfluency, rather than fluency, can sometimes be what's called for. Work on product marketing by Schwarz and Hyejeung Cho has found, for example, that while creating a sense of disfluency in potential consumers is likely to make them see a product as less familiar, it also makes them see it as more innovative.

And a few studies suggest that disfluency works well as a prompt to get people to think carefully and catch mistakes. Alter and Oppenheimer found that using a more difficult font can get students to do better on the Cognitive Reaction Test, a three-question test that usually trips up people answering intuitively. In another study, they found that disfluency also led people to think more abstractly. Schwarz and Song found that a difficult font can dramatically increase the number of people who correctly respond to the question, "How many animals of each kind did Moses take on the Ark?" (The answer is "none" - Moses wasn't on the Ark.)

In other words, to get people to think carefully and to prevent them from making silly mistakes, make them work to process the question: make the font hard to read, the cadence awkward, and the wording unfamiliar.

Some researchers are also starting to look at the question of how to change people's responses to cognitive fluency. Winkielman is part of a team of researchers who, in a forthcoming study, looked at the relationship between mood and the desire for fluency. They found that happy people are less interested in familiar, fluent stimuli - in this case abstract visual patterns - than sad people. According to Winkielman, this makes sense: When we're unhappy, we seek out stability and a sense of safety; when we're happy, we're more open to the unfamiliar.

"Fluent things are familiar, but also boring and comfortable," he says. "Disfluency is intriguing and novel. Sometimes you like comfort food, like when you're sick. And usually you want to try something new when you're more comfortable."

It may be possible to tactically use disfluency to improve our own everyday lives, as well. Schwarz has found that the ease or difficulty of thinking something can sometimes neutralize the actual content of the thoughts themselves. Along with Lawrence Sanna of the University of North Carolina, Schwarz has looked at fluency and self-confidence. The two found that, if the goal was to boost college students' confidence before an exam, getting them to list a few reasons why they were going to succeed was more effective than getting them to list many reasons. Because it was harder, the students who were asked to think of more ways to succeed were actually less confident, even though they ended up with longer lists.

And Schwarz and Sanna found a converse effect when they asked students to think of reasons they would not do well: Students asked to come up with a longer list of reasons they would fail reported feeling more confident than those asked for a shorter list. Indeed, they reported feeling as confident as the students who had been asked to come up with the short list of ways to succeed - by the authors' calculation, thinking of 12 ways to fail had the same effect as thinking of three ways to succeed.

In unpublished research, Schwarz has found a similar effect with marital happiness: Couples asked to come up with a short list of good qualities about each other reported higher levels of marital happiness than the other couples in the study - but so did those couples asked to come up with a long list of each other's bad qualities.

"Having to come up with many good things about your spouse is terrible, because it becomes difficult and then you think she's obviously not that wonderful," Schwarz says. "Coming up with a few bad things about your spouse, that's bad because it's not that hard. Having to come up with a lot of bad things, since it's hard, it means she's not that

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bad at all. The difficulty that you have tells you that there are not many such things.”

Results like these suggest that feeling good about yourself may in part be a matter of having a hard time feeling bad, and that confidence and even success might be triggered by interventions that do nothing but make failure seem the more intimidating possibility. The human brain, for all its power, is suspicious of difficulty, but perhaps we can learn to use that.

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