

**RELATIONSHIPS** 

## Engage People by Keeping It Simple

For the love of readers: Cut to the quick.

#### Posted April 5, 2023

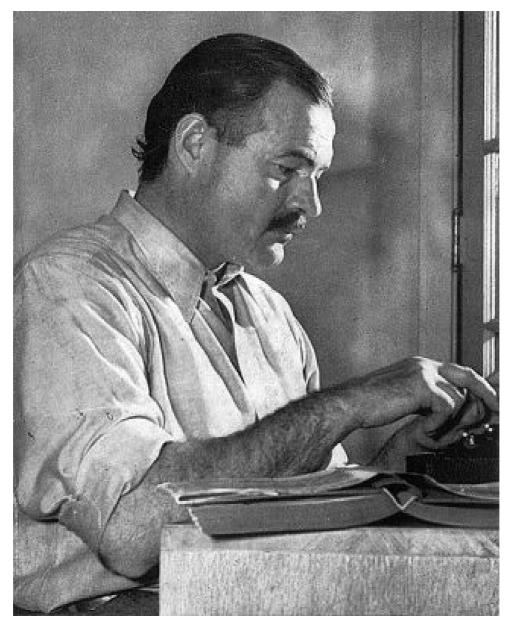
Reviewed by Davia Sills



#### **KEY POINTS**

- Experiments show that communicating with simple words and sentences engages people more than complex ones.
- All information conveyed with simplicity improves "processing fluency," cutting computational load and boosting reader pleasure.
- People are hard-wired to assume that simpler explanations are better, no matter the person's level of intelligence.
- Simpler explanations in healthcare communications give readers and listeners a greater sense of self-efficacy.

How do you hook people neurologically when you write or speak? My **last post** revealed that you have to turn on the brain's reward circuit to engage people. That's how you capture and keep people's attention. You get the dopamine flowing. The post also revealed eight strategies for making that You could argue that if you were to campaign for one strategy to win people over while writing or speaking, it would have to be simplicity. True, people sometimes rave about complexity. But they're usually talking about wine, not language. If you want people to drink deep at the well of your thoughts, if you want to engage them, write and speak with the simplest sentences you know.



Ernest Hemingway by Lloyd Arnold, 1939

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do is write one true sentence. Write the truest sentence you know"—a sentence, he added, without "scrollwork or ornament."[1]

The allure of simplicity is universal: Pablo Picasso, in a classic pen-and-ink sketch, used just eight lines to depict a toreador whirling around a bull. Johannes Brahms chose just four notes to elevate "Hallelujah" to a celestial refrain. Martin Luther King Jr. repeated four words to reshape an era—"I have a dream."

Don't worry simplicity will dumb down your writing and speaking. Great writers have shown for centuries that plain words serve just fine, even for cosmic concepts. John Steinbeck wrote of the desert Southwest in *Travels with Charley:* "At night in this waterless air the stars come down just out of reach of your fingers."[2]

Simple words. A moving image. As if to prove the power of simplicity, Princeton University scientist Daniel Oppenheimer gave 71 Stanford University students two written passages. The two said the same thing, one composed of simple words, the other complex.

The students, oblivious to Oppenheimer's intent, agreed: The authors of the complex prose were less intelligent.[3] The students apparently had what Hemingway called a natural "bullshit detector"—the big words betrayed the authors' B.S.

## **Easy Evolution**

Why do people take pleasure in simplicity? Why would evolution have made people thirst for an economy in language? How do simple passages in almost all writing and speaking

### have them act?

Scientists have shown the lighter burden of language processing is the first reason. Their studies confirm: The shorter your sentence, the simpler your words, the cleaner the syntax, the fewer circuits readers have to recruit for processing. [4] People love how you ease their mental load or, as scientists say, boost "processing fluency."[5]

#### THE BASICS

Why Relationships Matter

### Find a therapist to strengthen relationships

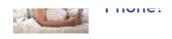
All else being equal, less work equals more pleasure. Everyone loves having it easy! Just as we all like comfort food for dinner, we all also like familiar and friendly words for processing. Of course, our minds can handle plenty of complexity without breaking a sweat. So why does simplicity matter so much?

"Our minds want to do things with minimum energy," says Piotr Winkielman, professor at the University of California, San Diego, an expert in the rewarding nature of processing fluency.[6] Computational efficiency, in which neurons code information in the least energy-consuming ways, he says, reduces that energy.

### **RELATIONSHIPS ESSENTIAL READS**



**On Love and Loss** 



The region known for basic word processing traces a broad racing stripe along the left side of your brain. At the rear of the stripe is the Wernicke's area, responsible mostly for word definitions. Although scientists don't know all the ins and outs of how the basic language circuit works, they do know that every neuron pressed into action consumes energy in the form of glucose.

Plenty of experiments reflect the consequences of the burden readers and listeners endure if you make your writing complex. When you write sentences with clauses nested in the middle, for example, readers need longer to read them. The nested sentences also prompt more comprehension mistakes.[7] The same goes for sentences that put the objects before subjects ("Profits are loved by investors.") instead of subject first ("Investors love profits.").

Scientists have even quantified the processing burden. When you write using complex sentences, all else being equal, you lower peoples' comprehension accuracy by 10 percent. You also slow reading times for each sentence by a tenth of a second.[8] That 0.1 second doesn't matter if you're not asking people to read much. But what about longer works? What about the thousands of extra 0.1 seconds you pile on in a long report, article, presentation, or book?

## Simple Energy

One reason simplicity pays off in better processing fluency is that, for all the brain's processing horsepower, it does have limits. Psychologist George Miller found in the 1950s that the longest string of numbers people can store in working memoas well. The magic limit for chunks of words appears to be four.[10]

So you can easily bog readers and listeners down in a cognitive quagmire. You also risk pushing them, as Oppenheimer did, into questioning your intelligence, and you might be surprised that science explains why: People normally assume the simpler explanation is the better one.[11]

So universal is that finding that it has a name, "Occam's razor," for William of Ockham, a 14th-century Franciscan friar. The razor has passed the test of time because it fits most people's intuition: The better theory is the one with fewer assumptions and parts.

Why did Einstein earn such kudos for E=MC<sup>2</sup>? Because (at least in part) the equation defined the physics of energy so economically, using two—just two!—variables. Wouldn't it be nice if you could explain every enigma with just two factors?

This, in turn, explains why many teachers suggest your writing and presentations contain no more than three big ideas. People comprehend more when you offer less. More than three, and you've exceeded Einstein! So if you want to reward people, put your finger on a single pulse, not on a dozen different pressure points. That's how you'll engage your audience.

Public health professor Tsuyoshi Okuhara and colleagues showed another benefit of simplicity. Simple language gives people confidence they can succeed in acting on what they're learning. He and his team asked 400 people aged 40 to 69 to read write-ups on how to exercise for better health. group—reading shorter words and sentences—scored higher on self-efficacy or the feeling you can and will do something. [12]

## **Simple Advice**

So remember that people want to cruise to the end of a sentence without a slowdown or breakdown in comprehension. Get your words to slide through the doors of their minds without scratching the molding. Here are three top tips:

**Break it down.** Split up beefy thoughts and sentences. As a pro once said, "The period never comes soon enough." People's brains thirst for simple models to represent a complex reality. So reward readers by constructing the simplest models possible. Why have magazines with cover headlines that start "The 10 Secrets to..." always sold so well? They promise an abstract thought taken apart—and given life—piece by piece in a simpler model.

**Cut caveats.** Every argument has exceptions. Every topic demands context. Still, beware of the fig leaves of hedging. Remember those old jokes that make a point about delivering a message without caveat: Investor Warren Buffett: "The first rule of investment is: Don't lose [money]. The second rule of investment is don't forget the first rule."[13] Duke Ellington: "There are two rules in life: Number one—Never quit. Number two—Never forget rule number one."[14]

**Delete residue.** With each new draft, you'll refine, restate, reinforce, and reiterate. That's all a part of saying what you want to say accurately. And that's primary. But as your senAnd don't write more than your readers and listeners want. Compress. Add by subtracting. Remember Picasso and Hemingway and King! My copyfit (word count) for this excerpt was a maximum of 1,500 words, so here I stop.

#### References

[1] Ernest Hemingway, A Moveable Feast (New York: Scribner, 1964).

[2] John Steinbeck, Travels with Charley (New York: Penguin, 1980).

[3] Daniel M Oppenheimer, "Consequences of Erudite Vernacular Utilized Irrespective of Necessity: Problems with Using Long Words Needlessly," *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition* 20, no. 2 (2006).

[4] Multiple studies show that more complex reading recruits more brain circuits. See Marcel Adam Just, Patricia A. Carpenter, Timothy A. Keller, William F. Eddy, and Keith R. Thulborn, "Brain Activation Modulated by Sentence Comprehension," *Science* 274 (October 4, 1996): 114–16; or more recently, Angela D. Friederici, Christian J. Fiebach, Matthias Schlesewsky, Ina D. Bornkessel, and D. Yves von Cramon, "Processing Linguistic Complexity and Grammaticality in the Left Frontal Cortex," *Cerebral Cortex* 16, no. 12 (December 1, 2006): 1709–17.

[5] Jan R Landwehr and Lisa Eckmann, "The Nature of Processing Fluency: Amplification Versus Hedonic Marking," *Journal of Experimental Social Psychology* 90 (2020). Landwehr and Echmann confirm that "fluent processing is a hedonically positive experience that triggers positive affect."

[6] Author interview with Piotr Winkielman, University of California, San Diego, April 4, 2022. See Piotr Winkielman et al., "The Hedonic Marking of Processing Fluency: Implications for Evaluative Judgment," *The Psychology of Evaluation: Affective Processes in Cognition and Emotion* 189 (2003).

[7] Marcel Adam Just et al., "Brain Activation Modulated by Sentence Comprehension," *Science* 274, no. 5284 (1996)., "Brain Activation Modulated by Sentence Comprehension," 114–16.

[8] Angela D Friederici et al., "Processing Linguistic Complexity and Grammaticality in the Left Frontal Cortex," *Cerebral Cortex* 16, no. 12 (2006).

[9] George A. Miller, "The Magical Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information," *proven* that four is the limit, but many scientists have settled on four as roughly correct. See Nelson Cowan, "The Magical Number 4 in Short-Term Memory: A Reconsideration of Mental Storage Capacity," *Behavioral and Brain Sciences*. 24, no. (2001): 87–114, discussion 114–85.

[11]. For a summary of the history and science behind this idea, see Nick Chater, "The Search for Simplicity: A Fundamental Cognitive Principle?" *The Quarterly Journal of Experimental Psychology 52A*, no. 2 (1999): 273–302.

[12] Tsuyoshi Okuhara et al., "Influence of High Versus Low Readability Level of Written Health Information on Self-Efficacy: A Randomized Controlled Study of the Processing Fluency Effect," *Health Psychology Open* 7, no. 1 (2020). This study was done in Japanese.

[13] Interview with Warren Buffett, *Adam Smith's Money World: How to Pick Stocks & Get Rich,* PBS (1985): <u>https://www.youtube.com/watch?v=vCpT-UmVf3g</u>.

[14] Attributed to Duke Ellington



## About the Author



**Bill Birchard** is a writer, writing coach, and book consultant. He writes about the neuroscience and psychology of writing. His most recent book is *Writing for Impact: 8 Secrets from Science That Will Fire Up Your Reader's Brains.* 

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## More from Bill Birchard



# To Risk It All or Not? We Look to Others When Deciding

Even our "moral compass" seems to be calibrated to other people's choices, research suggests



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By:

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#### April 26, 2023

t is not surprising that we make everyday decisions, like what to eat or what to wear, based on what other people do. But what about more consequential choices, do we stick to our own internal principles? Many of us think (and say) we do. Yet research from the University of California San Diego suggests that even when people are considering matters of potential life and death, they still look to others for the best course of action – playing it safe or taking risks based on the perceived social norm. The researchers ran a series of decision-making experiments, asking participants to make hypothetical choices about managing a disease outbreak among an endangered species (pandas) and, separately, to make hypothetical financial choices. In a paper published in Nature's open-access journal Scientific Reports, the researchers conclude that "people conform to social norms when gambling with lives or money."

The paper's first author is UC San Diego psychology doctoral student Yueyi "Sherry" Jiang, and the senior author is Piotr Winkielman, a professor of psychology who heads up the <u>Social</u> <u>Cognition Lab</u> at UC San Diego.

"Our work seeks to answer experimentally to what extent decisions are just a numbers game – figuring out the objectively most beneficial choice – or whether they reflect personal principles, or perhaps simply reflect people's sense that it is best to rely on what others think," Winkielman said.

In the first study, about managing a disease outbreak, participants were given a choice to: save 10 pandas for sure, or take a 50/50 risk to potentially save more (from 10 to 30 more) at the risk of saving none. Participants first made these choices on their own, without knowing what others do. Later they were exposed to other people's choices. The others were presented as being either risk-seeking (preferring the risky option) or risk-averse (preferring the sure option).

## Interestingly, in making decisions about panda lives, participants were more influenced by those who preferred to play it safe.

The researchers used an identical design in their second study but focused it on taking risks with your own (pretend) money.

The results indicate that participants' choices were highly influenced by what others do. When asked alone, three days later, participants were either more risk-seeking or more risk-averse depending on the group they had been exposed to. This suggests, the researchers say, that participants incorporated the group's choices into their own preferences.

The researchers also discovered that people were more likely to take risks with their money than with lives. But overall, in both scenarios, participants were generally risk-averse, preferring the sure option over the risky one.

While people were influenced by other people's choices in both scenarios, there were some important differences too: People were more influenced in the panda experiment, which the researchers construe as a kind of moral decision, as it involves life or death, compared to the non-moral financial experiment.

Interestingly, it also seems that in making decisions about panda lives, participants were more influenced by those who preferred to play it safe.

Jiang explains: "Prior research tells us that group acceptance plays a more significant role in moral decisions than in financial decisions. So we think that in the panda experiment, participants were more likely to follow the group's preferences in order to avoid blame for wrong choices, because the social consequences of losing an endangered panda's life are far more severe than losing money."

The study's findings, the researchers say, can inform future research in more applied settings and with real, not hypothetical, outcomes. As such, the current findings could have implications for making informed decisions and for designing effective policies in a variety of fields.

## The findings could have implications for making informed decisions and for designing effective policies in a variety of fields.

In healthcare, for example, knowing that our appetite for risk, or risk tolerance, depends on what we see others do suggests that we could design policies to shift health decisions through education campaigns. Showing that others prefer to be cautious and avoid disease risk (let's say by masking) could influence individuals to make similar decisions.

In the financial sector, some people take bets on a risky housing market, invest in risky cryptocurrency or novel stocks, while others seek safety in saving accounts, CDs or bonds.

"Our work," Jiang said, "suggests that peer influence can potentially impact all these choices – making individuals either more risk-seeking or risk-averse based on the attitudes of those around them."

This research was supported by a UC San Diego Academic Senate Grant to Winkielman.

"<u>People conform to social norms when gambling with lives or money</u>" is included in a special collection from Scientific Reports on "<u>Moral judgement and decision making</u>."

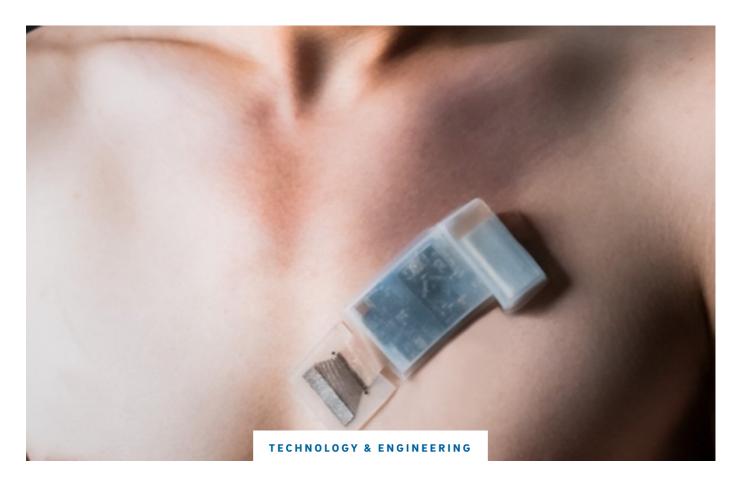
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