

KISS

"Beware of geeks bearing formulas." - Warren Buffett

From alpha architect. Be sure to watch the 6 min. YouTube video:

Behavioral Finance Warning: Humans Love Complexity

By [Wesley Gray, PhD](#) | August 3rd, 2021

People systematically overlook subtractive changes

- [Gabrielle S. Adams](#), [Benjamin A. Converse](#), [Andrew H. Hales](#) & [Leidy E. Klotz](#)
- *Nature* 592, 258-161
- A version of this paper can be found [here](#)

What are the Research Questions?

Complexity does not automatically equate to better outcomes.

In the context of investing, complexity generally equates to over-optimization, and confusion, which can lead to investors paying too much for something they, 1) don't really understand, and/or 2) services that don't add any value.

We have continually emphasized the benefits of simplicity over complexity via [our blog](#) and in our book, "[DIY Financial Advisor](#)." We have a "blast from the past" [Morningstar interview](#) between myself and Sam Lee, where we discuss the issues with complexity. ¹

Regardless of reality and attempts by academics and advisors to educate investors on the dangers of complexity, investors seem to be seduced over and over again by investment strategies that should be simple but quickly become complex.

Why are humans seduced by complexity?

Turns out that humans love to add bells and whistles to just about everything. We simply can't compute -- easily -- that sometimes removing complexity is the best solution. A recent journal article in *Nature*, "[People systematically overlook subtractive changes](#)", makes this point clear:

We are doomed to desire complexity and dismiss simplicity. It's in our nature!

A summary of the article by *Nature* is available [here](#) and the source article is [available here](#).

The academic questions in this research are as follows:

1. When solving problems, do humans prefer to add components, subtract components, or are they indifferent?
2. Are these preferences different under varying circumstances?

What are the Academic Insights?

Several of the key results of the paper are as follows:

1. Humans strongly favor additive solutions relative to subtractive solutions.
2. Various cues and incentives can help minimize the human tendency to 'add' versus 'subtract' when it comes to problem-solving. That's good news.

Why does it matter?

Humans rarely seek 'subtraction' as a solution to a problem. We see this in regulation, corporations, sports leagues, investing, and just about every function of life. While less can sometimes be more, in reality, we seek to add 'more' for almost all situations. A good behavioral hack is to harness the power of Charlie Munger's inversion principle: the next time you are addressing a problem, don't ask yourself, "What can we add here to solve this problem?" Instead, ask, "What can we subtract here to solve this problem?" You might find yourself with a better solution.

Also, you may want to pick up a copy of Leidy Klotz's book, "[Subtract: The Untapped Science of Less.](#)"

Video

https://www.youtube.com/watch?v=1y32OpI2_LM

Abstract

Improving objects, ideas or situations—whether a designer seeks to advance technology, a writer seeks to strengthen an argument or a manager seeks to encourage desired behaviour—requires a mental search for possible changes^{1,2,3}. We investigated whether people are as likely to consider changes that subtract components from an object, idea or situation as they are to consider changes that add new components. People typically consider a limited number of promising ideas in order to manage the cognitive burden of searching through all possible ideas, but this can lead them to accept adequate solutions without considering potentially superior alternatives^{4,5,6,7,8,9,10}. Here we show that people systematically default to searching for additive transformations, and consequently overlook subtractive transformations. Across eight experiments, participants were less likely to identify advantageous subtractive changes when the task did not (versus did) cue them to consider subtraction, when they had only one opportunity (versus several) to recognize the shortcomings of an additive search strategy or when they were under a higher (versus lower) cognitive load. Defaulting to searches for additive changes may be one reason that people struggle to mitigate overburdened schedules¹¹, institutional red tape¹² and damaging effects on the planet^{13,14}.

Notes:

1. Part of our [FACTS framework](#), discussed in the video, includes a specific letter designation, "C", which is tied to the complexity and the seductive nature of adding too many bells and whistles to an investment approach.

About the Author:

After serving as a Captain in the United States Marine Corps, Dr. Gray earned an MBA and a PhD in finance from the University of Chicago where he studied under Nobel Prize Winner Eugene Fama. Next, Wes took an academic job in his wife's hometown of Philadelphia and worked as a finance professor at Drexel University.

Dr. Gray's interest in bridging the research gap between academia and industry led him to found Alpha Architect, an asset management firm dedicated to an impact mission of empowering investors through education. He is a contributor to multiple industry publications and regularly speaks to professional investor groups across the country. Wes has published multiple academic papers and four books, including *Embedded* (Naval Institute Press, 2009), *Quantitative Value* (Wiley, 2012), *DIY Financial Advisor* (Wiley, 2015), and *Quantitative Momentum* (Wiley, 2016). Dr. Gray currently resides in the suburbs of Philadelphia with his wife and three children. He recently finished the Leadville 100 ultramarathon race and promises to make better life decisions in the future.

From Farnam Street's Sep. 1, 2019 newsletter:

"Human beings have a limited processing ability ... We can't maintain a whole lot of information in our head at any one point. Because of that limited processing ability we have a hard time with too much information. So we like to think that the more information we get the "better informed" we are, and will make better decisions. But that's not true. A seminal study was done by a psychologist named Paul Slovic back in 1974. Paul Slovic gets eight horse handicappers into a room and he says, "I want to see how good you guys are." He says, "We're going to spend today handicapping horse races." Which is to say, predicting the winner of a horse race. And these had been races that had been run over the last few decades that Slovic had gotten the stats on. And he deleted the names of all the horses. Because if you knew the name of the horse it would give you an edge. So all you saw was numbers. That's all you saw. So he said, "We're going to handicap 40 horse races, and we're going to do so in four rounds, 10 races each. And in the first round I'm going to give each of you horse bettors, handicappers, any five pieces of information you want."

So you might want the weight of the jockey but that guy next to you, the other handicapper, he doesn't really care about the weight of the jockey. He wants some other variables. So each of you, whatever five pieces you wanted and each of the horse handicappers wanted, they got. And at the end of the first round with five pieces of information, they were 17% accurate (and 19% confident). Which is pretty good. [T]here were 10 horses in every race. So we would expect 10% accuracy just blind guessing. Just pick one in 10, you got a 10% chance of getting the horse right. So if you're betting 19% you've almost doubled your results. That's pretty good. So almost identical confidence and accuracy with five pieces of information. Round two, they were given 10 pieces of information, then 20, and in round four they had 40 pieces of information. And there were 10 races. So this was statistically valid results. Their accuracy was still only 17% with 40 pieces of information, but their confidence almost doubled to 31%. It went from 19% to 31%. So they are now almost twice as confident as they ought to be. ... All the new information did was make them more confident in a decision they already made." — [Winning at the Great Game with Adam Robinson](#)

Our thoughts

As detailed on HCM's website, our [IVA Stock Selection System](#), consists of just 3 academically proven criteria: [Insider Buying](#), [Valuation](#), and [Analysts](#).