

My favorite candy bar is the Palmer Candy Company's Bing. (Single, twin, king, it really doesn't matter. They're all good.) My favorite singer, actor, entertainer is also Bing. (Crosby, that is.) And my favorite logical fallacy is confirmation bias. (And obviously, my favorite comedic technique is the triple.)

Confirmation bias is the very human tendency to perceive all new information as substantiation or corroboration for what you already believe. Thus, if you view Colorado's legalization of marijuana as tantamount to its descent into a smoke-occluded hell, you will greet data on increases in crime in that state as iron-clad evidence for that drug's destruction of civilization itself. If you see legalization as an enlightened response to a lost war on drugs, you will point out that increases in crime are rather small, that they do not include many of the worst offenses, and/or that they are far from the sort of social collapse forecast by the reactionaries on the other side.

Same data, opposite conclusions.

Yet, even when you are someone who guards vigilantly against the fallacies of confusing correlation with causality, spots an ad hominem attack from a mile away, and wears mental hiking boots that can traverse even the slipperiest of slopes, the confirmation bias remains maddeningly seductive. After all, as someone who consistently reaches conclusions through the careful application of logic and both inductive and deductive reasoning, you've arrived at the truth about any number of things. Accommodating all new data into that construct is simply an extension and strengthening of the truth, rather than jamming new evidence into a cognitive model in which it really doesn't fit or even just ignoring it altogether, as all those mere mortals do.

No one, in other words, can fool you like *you* can fool you. Just believe your own marketing. Then again, maybe the newest, latest evidence really does support your position.

To illustrate, I cheered when states across the country, in the last decade of the last century and the first decade of this century, significantly ramped up high school graduation requirements. The point and inevitable impact of this was obvious on its face. Step up requirements and students would master more, would have higher student achievement. Doing so would also require more homework, more study and thereby crowd out some, though certainly not all or even most, unhealthy, risky, or just bad behaviors. If you want to keep kids out of mischief, keep them busy.

Lo and behold, two economics scholars, in a paper published in the American Journal of Health Economics, offered persuasive, though not compelling, evidence that such thinking and such educational reform was on the right track. The researchers, Benjamin Cowan and Zhuang Hao, did an awful lot right in their research. They narrowed their focus, operationalizing rigor through more math and science courses. They looked long-term, the almost 20 years from 1993 to 2011. They didn't try to generalize from a small population, gathering data from more than 100,000

students. What they found were declines in the number of days students drank alcohol and participated in binge drinking.

“Yes!” my know-it-all superego crowed. “Demand more and you get more!”

Adeptly side-stepping the lack of necessary causality that such a correlational study provides (after all, tobaccoists hid behind the smoke screen of causality for decades until the sheer weight of the numbers made ignoring the technical fallacy non-fallacious), I was still left looking over my shoulder for the specter of confirmation bias.

Was my belief blinding me to the counter-evidence manifest and implicit in the study? For example, reductions in drinking associated with large increases in math and science requirements were minuscule, in fact, 1.6%. If a pill reduced your headache by 1.6%, would you even bother taking it? Also, why the focus only on alcohol? If keeping young people busy with productive intellectual pursuits worked, shouldn't it also reduce cigarette and marijuana use? Well, long story short, it didn't. Yet the authors point to the fact that these behaviors didn't increase (to make up for the reduction in alcohol consumption) as supportive of the efficacy of boosting requirements. Finding the one area where something worked, then using the lack of positive evidence in others as somehow corroborating evidence sounds pretty much like a classic case of confirmation bias.

Which is not just disappointing but even demoralizing. I *just know* that bolstering graduation requirements in challenging academic content areas boosts our young people's resistance to the traps that ensnare so many today. Very possibly, though, I know nothing of the kind.

Still, the authors did also mention one other very promising way to reduce youth risky behavior, a longer school year. Now there's an approach I can get behind and don't bother explaining how confirmation bias has the same relevance to more days of school that it has on more math and science.

Don't bother because I couldn't possibly hear you anyway. Not over the crooning of *White Christmas* and the oh-so audible chewing of a cherry-filled candy bar.