Merry Xmas from the team at CFS

As I write this newsletter I'm thinking where did 2015 go, in fact where did the last 10 years go since joining Bill at CFS; my first born has transitioned from primary school to half way through her psychology /business degree, my son has gone from playing in the neighbourhood to playing around the world with the Air Force and my 'baby' has transitioned from kindergarten to entering fifth form. Thankfully as I discuss life and its interesting highways and byways with many of you I realise that we've all got similar concerns, goals, joys and wonderment.

Please enjoy the main article, an abridged version from a Stuff article well written by Megan McArdle, which I think very relevant in today's market driven, media presented perception of reality.

As always if we haven't called you, and you're not sure if you're on the road to success, or if you've lost the keys and can't even find the vehicle, please call us, we have several maps and guides!

Actually our newest guide Nicholas is providing debt finance solutions as well as insurance solutions, so if it's a financial problem you have please call us at CFS, we'll have someone able to provide options.

Why we fall for bogus research

By Megan McArdle

Replication of psychology studies has become a hot topic, and Science published the results of a project that aimed to replicate 100 famous studies - and found that only about one-third of them held up. The others showed weaker effects, or failed to find the effect at all. This is, to put it mildly, a problem.

But it is not necessarily the problem that many people seem to assume, which is that psychology research standards are terrible, or that the teams that put out the papers are stupid. Sure, some researchers doubtless are stupid, and some psychological research standards could be tighter, because we live in a wide and varied universe where almost anything you can say is certain to be true about some part of it.

Why did so many studies fail to replicate? For starters, because in many cases, the sample sizes were larger. In general, the larger your sample, the weaker the affects you will find, because it's harder for a few outliers to swamp the results. If you take the average height of three men, and one of them happens to be Shaquille O'Neal, a famous basketball player standing 7ft 1in, you're going to get a very skewed notion of the average height of the American male.

If you take the average of ten people, and O'Neal is still standing there in his size 23 sneakers, you're still going to be off by an inch and a half even if the rest of the group is broadly representative. By the time you've got 30 other people in the group, you're down to a half-inch discrepancy, and by the time there are 100, you're going to be within measurement error of the right number.

But journal editors and journalists do not necessarily exercise appropriate caution. That's not because journal editors are dumb and don't get statistics, but because scientific journals are looking for novel and interesting results, not "We did a study and look, we found exactly what you'd have expected before you'd ploughed through our four pages of analysis." This "publication bias" means that journals are basically selecting for outliers.

Journalists, who unfortunately often don't understand even basic statistics, are even more in this business. They easily fall into the habit of treating studies not as a potentially interesting result from a single and usually small group of subjects, but as a True Fact

about the World. Many bad articles get written using the words "studies show," in which some speculative finding is blown up into an incontrovertible certainty. This is especially true in the case of psychology, because the results often suggest deliciously dark things about human nature, and not occasionally, about the political enemies of the writers. Why does this happen? "We reward people not for digging into something interesting and emerging with great questions and fresh uncertainty, but for coming away from their investigation with an outlier -- something really extraordinary and unusual. When we do that, we're selecting for stories that are too frequently, well, incredible."

Journalists are not rewarded for writing stories that say "Gee, everything's complicated, it's hard to tell what's true, and I don't really have a clear narrative with heroes and villains." Readers like a neat package with a clear villain and a hero, or at least clear science that can tell them what is right and wrong. At the end of the day we shouldn't be surprised that so many "facts" about diet and human psychology turn out to be overstated, or just plain wrong.

Street smart

Three student lawyers and three student engineers were going for a trip by train. Before the journey, the engineers bought 3 tickets but the lawyers only bought one. The engineers were glad that their stupid colleagues were going to pay a fine. However, when the conductor was approaching their compartment, all three lawyers went to the nearest toilet. The conductor, noticing that somebody was in the toilet, knocked on the door. In reply he saw a hand with one ticket. He checked it and the lawyers saved 2/3 of the ticket price.

The next day, the engineers decided to use the same strategy - they bought only one ticket, but the lawyers did not buy tickets at all!

When the engineers saw the conductor, they hid in the toilet, and when they heard knocking they handed in the ticket. They did not get it back.

Why? The lawyers took it and went to the other toilet.

"And remember, son, perception isn't reality—money is."