



WHEN SEEING ISN'T BELIEVING

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Most people have a healthy level of scepticism when it comes to statistics; we all know that they can be made to prove just about anything, sometimes by simple omission and sometimes by malevolent manipulation.

We also know that statistics can be a huge snoozefest for audiences; slide after slide of numbers is one of the best ways to disengage an audience and with so many options for graphics available, there's no excuse.

But graphics aren't a panacea and getting it wrong can cause more than just disinterest.

There are two significant hazards to negotiate when it comes to visualising statistics and either can easily capture the unwary or expose the unscrupulous.

First off there is an old nemesis of ours which involves running fast and loose with the properties of the x and y axis on a graph. Failing to give either axis a scale or making the two scales widely different can lead to some stunning misinformation (there's an

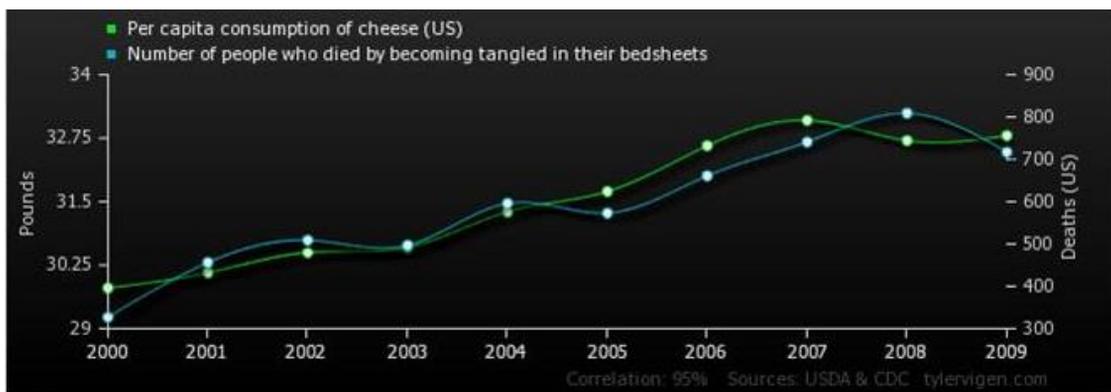
excellent example of this in [The Presentation Lab book](#) on page 155, for those of you with a copy to hand).

There's a huge temptation to use this as a way of making statistics look more impressive than they are, but this is something that presenters do at their peril because, as we may have mentioned before, [audiences are not stupid](#) and if they spot a little dishonesty, they'll expect a big one too.

The second hazard comes from our very human tendency to see patterns where there are none. It happens at a very basic level with shapes; clouds that become sharks, rabbits, or Mick Jagger's lips for example.

We all know that a cloud isn't a shark or a pair of world renowned lips but it's hard for us not to see these things.

So, when a graph like this appears before us (courtesy of the brilliant [Tyler Vigen](#)) we immediately see an obvious correlation.



But look a little closer, do you really think that cheese consumption is relative to death by bedsheets?

The obvious answer (putting aside any notions of fatal cheese dreams) is no.

But as a graphic without supporting information it could be easily misconstrued

and our reliance on patterns almost wants us to believe it.

Making data visually appealing is easy, but keeping it honest while you do so can be much harder. Go steady and be clear when preparing that very impressive (and oh so persuasive) chart...your audience deserves it.