



D33 Elementary Analytical Techniques to Enable Verification of Claims and Data That Lie Outside Personal Specialism Comfort Zones

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Learning Overview: After attending this presentation, attendees will be aware of the common problem of unchallenged acceptance of claims and data. Attendees will learn how to verify or discredit claims and data in almost any specialism via the application of elementary analytical techniques, such as supposition, estimating, bracketing, and basic mathematical analyses.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by raising awareness of an often-overlooked and under-appreciated problem that has a major impact upon daily life, including life within the justice system. This presentation will demonstrate that the timely application of easily applied basic analytical techniques is a time- and cost-effective way to screen out bogus assertions that can often result in wasted resources and even hysteria.

Summary, Hypothesis, and Proposition: On a daily basis, we all deal with a multitude of people in a range of roles—politicians, car salespeople, lawyers, etc. Then there are the advertisements and infomercials. Are they lying to you, are they being politically correct, are they giving you only part of the truth (what is omitted is often more important than what is communicated)? Can you believe your doctor when he recommends a new medication, or is his judgment being influenced by an expenses-paid trip to the country club—how would you know, how can you find out? Only a few decades ago, tobacco company executives testified under oath that nicotine was not addictive; it is now widely recognized to be addictive—were they lying or have humans undergone biological change?

Some lies are more enduring than others. Published data from “reliable sources” can be deceptive and is less likely to be challenged; there are lies, damned lies, statistics, and government statistics.

The 2012 Alvarez ruling from the United States Supreme Court focused on interpretation of the First Amendment to the United States Constitution.¹ In short, that ruling essentially interpreted the First Amendment as providing the right to lie. Unfortunately, it seems that many people view it as an obligation, rather than just a right, and it often feels as though we are drowning in lies and deception every minute of every day. So, how do you plough through it all and get to the truth?

Journalists and television commentators frequently proclaim that they have “fact checked” claims made by a corporation or an individual; but in a world of many “alternative truths” just what “facts” can you have confidence in? Did you just watch fake news, real news, or was it even news at all? If you try a little fact checking on the internet for any subject about which you possess little personal knowledge, you will likely encounter dozens of “opinions” and come away more confused than when you started.

Rather than seek out the opinions of others, it is often best to form an opinion of your own. Elementary analysis of the “facts” thrown at you can often reveal more than talking with several experts. Individuals have a duty to exercise due diligence in their personal and professional lives, and becoming proficient in a few basic analytical techniques can help to distinguish valid claims and data from the invalid, thereby avoiding serious problems.

This presentation will present real-world examples of lies and deception and analytical techniques that the average person can employ in order to assess the likelihood that they are being deceived.

Reference(s):

¹ *United States v. Alvarez* (567 U.S. (2012)).

Lies, Deception, Omission