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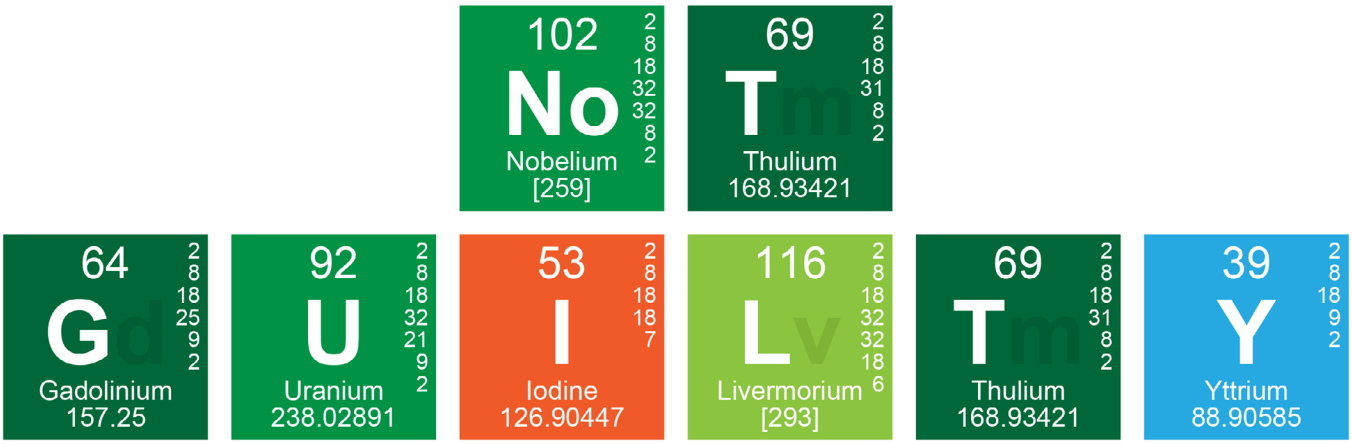


Looks Like Science, Must be True! Graphs and the Halo of Scientific Truth

by Aner Tal, Ph.D.

Don't miss the responses from trial consultants Jason Barnes and Karyn J. Taylor below.

Imagine you're a juror at a gruesome murder trial. Make it a particularly gruesome trial, the kind that makes it to the 9 o'clock news, just to raise the stakes of our hypothetical example. Yes, that might be unpleasant, but work with me here. In any case, imagine that over the past days you've seen compelling evidence for the horrors that occurred. The link between those and the man standing accused appear fairly incontestable. To make things worse, you don't really like the way the guy looks. There's just something about him that makes you uncomfortable, he *feels* like the sort of person who would be guilty.

The defense, however, has a plan by the name "*not guilty by reason of insanity*". They bring an academic-for-hire to the witness stand who paints a vivid picture of a newly minted mental illness straight from a fresh picked DSM-5. To support the thesis that the defendant is in fact afflicted by said mental illness, and that said mental illness does indeed lead one to commit heinous violence unto others, the defense attorney summons a graph onto the screen. Observing the graph, you notice that one column is clearly higher than the other column, incontestably so. Perhaps the expert also shows a picture of a brain, the sort that clearly comes from an advanced imaging device and has colored sections designating increased blood-flow in various arcane parts of the brain. You do not quite understand the image, or the names,—but they are clearly very scientific sounding. Maybe the expert adds a few words of their own to support the gravity of the ostensible mental illness, big words with four or more syllables that sound like they were most definitely made up by someone with at least one Ph.D.

Would the way the evidence was presented compel you to believe the defense and give a non-guilty verdict? Recent research from the Cornell Food and Brand Lab argues that the answer is an emphatic "yes". Displaying scientific-looking elements such as brain scans, scientific jargon, chemical formulas, and even something as simple as graphs, can imbue evidence for a claim with a scientific halo that renders information more convincing.

Oooh, Science

Prior studies have shown ("studies show", incidentally, being another "believe this" cue) that inclusion of scientific-looking graphics or images tends to increase persuasiveness. In one study, Weisberg et al. (2008) gave participants brief paragraphs describing various psychological phenomena. Some participants were given passages claiming a neuroscientific basis for psychological phenomena, sayings things like "Brain scans indicate" and "frontal lobe brain circuitry". Others were given the same paragraphs, without the neuroscience descriptors.

For example, as an explanation for one psychological phenomenon, control participants read "The researchers claim that this "curse" happens because subjects have trouble switching their point of view to consider what someone else might know, mistakenly projecting their own knowledge onto others."

Experimental condition participants read: "Brain scans indicate that this "curse" happens because of the frontal lobe brain circuitry known to be involved in self-knowledge. Subjects have trouble switching their point of view to consider what someone else might know, mistakenly projecting their own knowledge onto others."

Participants rated explanations for phenomena as significantly more convincing when they included neuroscience information. This occurred despite the fact that the neuroscientific explanations were in fact irrelevant to the phenomena at hand. Interestingly, neuroscientific language contributed to satisfaction with explanations only when general information quality was low, and not when general information quality was high. This indicates that giving a scientific appearance to information can be particularly persuasive when the backing for a claim is otherwise weak – particularly in cases where one should *not* be convinced by the appearance of science.

Such demonstrations of the appeal of scientific-looking rhetoric are of particular relevance for the operation of the legal and punitive system. Producing a scientific, external, deterministic explanation for behavior can potentially mitigate a person's legal responsibility for their actions (Greene and Cohen 2004). It is perhaps not surprising, then, that such evidence has in fact been used to argue for reduced culpability. Greene & Cahill (2012) discuss the subject, presenting several legal cases where neuroscientific evidence has been used in the courtroom. They also offer their own empirical examination of the effects of neuroscience evidence on legal decisions, demonstrating that brain imagery can lead to reduced recommendations for death sentencing.

Similar phenomena have been replicated by other researchers, including McCabe and Cassel (2008) and Fernandez-Duque (2014). Some recent research casts doubt on the generalizability of such effects (Scurich et al. 2014), arguing that neuroscientific information would only be persuasive to people who *want* to be persuaded by the particular argument presented (in general, arguments tend to be more persuasive where they support an opinion you want to be persuaded by or happen to believe already).

Creating the appearance of science via verbal means can also enhance persuasion. Haard, Slater, and Long (2004) examined the use of scientific sounding language on persuasion. In their studies, promoting unproven nutritional supplements like shark cartilage as health treatments was more successful when potential customers were given scientific-sounding terminology such as "angiogenesis inhibitor" and "immunoglobulins" to support products' efficacy. In their study, participants rated product descriptions as more convincing and products as more beneficial when given terminology they could not understand but that sounded scientific.

Studies: Show Me the Graphics

In our own studies (Tal and Wansink, 2014) we uncover evidence that even displaying trivial elements such as graphs can make information more persuasive. An accompanying graph can help persuade readers of the veracity of information. This occurs even though unlike scientific jargon or brain images, which may not be accessible to lay readers, simple graphs can presumably be understood by most people with an elementary education. Unlike mysterious jargon or brain images, the graphs we used for our studies do not and may not be taken to convey any information additional to that given in text. Readers cannot surmise that there is likely some highly credible scientific backing that they do not understand behind what they read, since the information in the graph is plainly presented. Thus, in this case, it is merely the primary school association between graphs and science that is persuasive.

In our first study, 61 participants on Amazon Mechanical Turk read information about a hypothetical new drug designed to combat the common cold.

"A large pharmaceutical company has recently developed a new drug to boost peoples' immune function. It reports that trials it conducted demonstrated a drop of forty percent (from eighty seven to forty seven percent) in occurrence of the common cold. It intends to market the new drug as soon as next winter, following FDA approval."

Half the participants were shown a graph to accompany the claims above. The graph simply visually presented the verbally described drop in incidence of illness, as shown below. After reading the scenario participants rated how effective they thought the medication was on a scale of 1 (not at all effective) to 9 (very effective). We also asked participants whether they thought the medication would reduce illness (yes) or not (no).

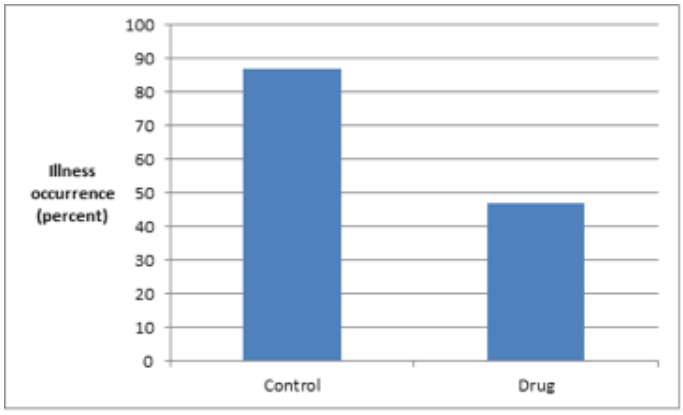


Figure 1: Graph Used in Study 1

Participants who saw the graph rated the medication as more effective (6.83) than did participants who received the verbal information only (6.12), a rise of almost 10%: t(59) = -.21, p = .04. More impressively, participants who saw a graph were considerably more likely to say the medication would reduce illness: 96.55% of participants who saw the graph believed the medication would reduce illness, versus 67.74% of those who did not see the graph: Chi-square = 8.3, p = .004.

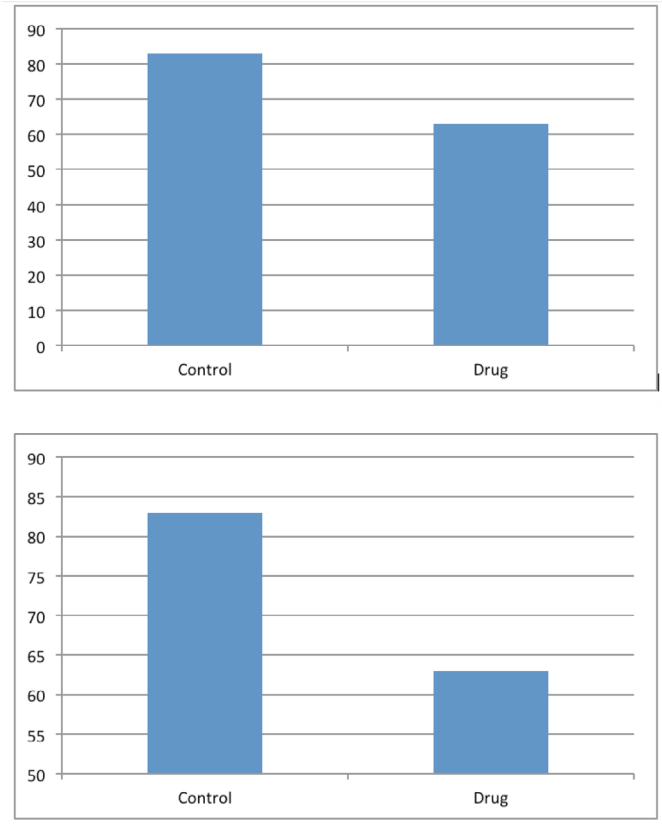


Figure 2: Graphs used in study 2

A second study replicated the effects with 56 college students recruited at Cornell University. In this case we used two graph conditions, one showing a Y-axis cutoff at 50% and one at 0%, such that the former would display what is visually a more impressive effect. There was no difference between the two graphs. Participants who saw any graph at all rated medications as more effective (5.75) than participants who did not see a graph (4.66), F(1, 51) = 8.18, p = .006. Notably, results were not stronger for those who reported being more visual thinkers, as measured on a published scale measuring verbal vs. visual thinking (Childers et al. 1985).

The second study also revealed that the effects of graphs on persuasion were not due to increased understanding of or retention of information. Participants in both conditions correctly reported on the reported reduction of illness to similar extent. The study also supported the idea that the effects of graphs were related to belief in science. There was a greater effect of graphs on participants who reported higher agreement with the statement "I believe in science", with a significant interaction of this measure with the presence of graphs: F(1, 51) = 10.1, p = .0025. The more participants believed in science, the more the presence of graphs affected them. Graphs give information the appearance of a scientific basis, making information more convincing for readers who believe that science equals truth.

In the last study reported in our paper (N = 57 shopping mall visitors), participants who saw a chemical formula for an anti-inflammatory medication said the medication would work for about 6 hours, vs. about 4 hours reported by control participants who were not shown a chemical formula: t(55) = -2.03, p = .05.

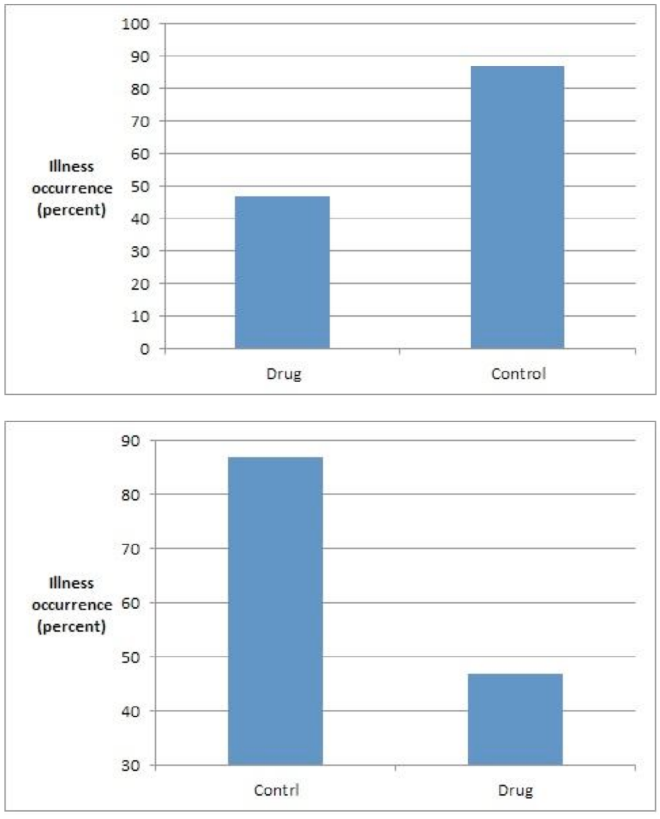


Figure 3: Graphs from final study

In addition to these studies, further replications from our lab provided additional support for our effects. For example, one study employing a larger sample (N = 111) demonstrated in-

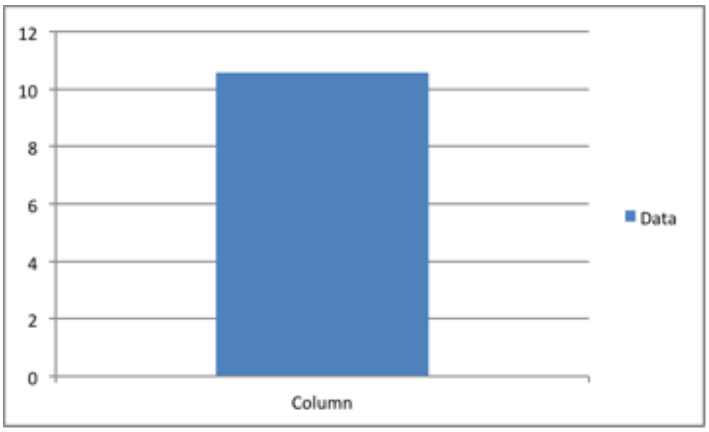
creased ratings of effectiveness, how good the drug is relative to other drugs, and ratings of how well the medication works for two graph conditions compared to a control condition with no graph. In this study there was increased effectiveness for a graph showing a drop by displaying the lower bar on the right, versus the left (concordant with the reading direction in English). For that condition, ratings of effectiveness increased from 6.18 to 7.18, ratings of how good the medication is relative to others increased from 6.03 to 7.26, and ratings of how well the medication works increased from 5.95 to 7.32. Effects on all 3 variables were significant at .01 or below. Here too, there was a greater effect for those who expressed greater belief in science. Interestingly, the effect was also greater for those who professed a greater scientific background. Finally, effects were also stronger for those who said the information was less clear, hinting that the less understanding you have the more impressed you are by scientific appearance, though paradoxically, the more you think you know, the more influenced you are by images or information that appear to be scientific.

Discussion: The Power to Make Believe

A scientific appearance can generate an air of credibility and increase the persuasiveness of claims it accompanies. Our research highlights how even trivial elements associated with a scientific image (graphs and chemical formulas) can help convince people of information. This can happen with consumers reading information about medication, and can happen at a court of law with a juror deciding whether to believe the argument established with the help of an expert witness. In such cases, the "expert" status of the witness can already imbue claims with some credibility, which the presence of elements like a graph can further solidify. When buying a new toaster, the impact of belief might not amount to much. In legal cases, however, whether or not you believe the argument being made can mean the difference between life and death. The effects of graphs on persuasion may have heavy repercussions, whether in criminal, corporate, or regulatory law.

One significant aspect of the current research is that such convincing science images or graphs need not be complex. In fact, research on processing fluency leads us to believe that at times complexity can be of disservice in persuasion, with *easier* to process arguments generating a positive feeling that may enhance persuasion (Alter et al. 2007; Oppenheimer 2008). A very simple, easy to follow graphic presentation, rather than elaborate brain scans or heavy scientific jargon, may do better at bolstering the persuasiveness of an argument. As long as the element on display says "science" to the observer, it can suffice to confer scientific credibility and persuade an audience.

So what can we do to avoid court decisions being swayed by fancy brain pictures or somewhat less fancy graphs? It's not clear that anything *can* be done, other than advising jurors and judges to consider the substance of the evidence rather than its appearance, to analyze the *merit* of an argument rather than being struck by its bells and whistles. Easier said than done.



Can the two even be separated? Can the feelings generated by form be separated from content? My years of scientific training and experience, and the graph below, lead me to think that the answer is, sadly, no. Other experts may disagree, and may have graphs of their own to support their argument.

Exhibit B: Unrelated but thoroughly convincing graph

The halo of science that might imbue court arguments with truthiness is not the only biasing rhetoric that may unduly sway court decisions one way or another. Feelings, intuitions, heuristics and biases play in to any domain of human thought and decision making (Ariely, 2008). Decisions about right and wrong, or truth and falseness, cannot be cold computer calculations when made by humans rather than computers. Until that day when we live our lives under a full-fledged Google Earth, where every piece of information is objectively recorded and life itself becomes a fancy computer algorithm, objective solutions to complex human problems may not even be in the realm of possibility. The data on which decisions are to be made is of such complexity that it does not lend itself to cold algorithms to begin with, and it may not even be data in any traditional sense of the word. The very fact that the information behind legal decisions and the decisions themselves cannot in many cases be made objectively, may arguably be the basis for the very existence of a judge-jury-and-lawyer legal system. All we can do is *try* to filter out undue influence and weigh the evidence without its decorative wrapping as much as we can.

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Jason Barnes responds:

Jason Barnes, a.k.a. "The Graphics Guy" is a graphic designer and trial consultant based in Dallas, Texas. He has been practicing visual advocacy since 1990 and has worked in venues across the country. He specializes in intellectual property and complex business litigation cases. You can read more about Mr. Barnes and how he can help you tell better stories in the courtroom at his website.

Response to "Looks Like Science, Must Be True!"

Dr. Tal comes to the conclusion that "a scientific appearance can generate an air of credibility and increase the persuasiveness of claims it accompanies." This does not surprise me in the least. Scientists enjoy high ratings for respect within the general population, so looking like a scientist seems like a good way to get some respect. A pair of nerdy glasses might be a nice touch.

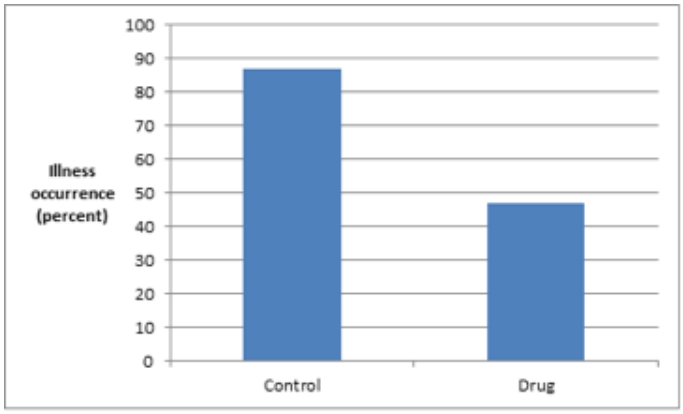
To the idea that images which lend the patina of science to an argument are persuasive, I say, "Hurrah!" But Dr. Tal ultimately expresses his desire "to filter out undue influence and weigh the evidence without its decorative wrapping…." As a person in the business of decorative wrapping, I say, "Phooey!" I am an advocate for a certain interpretation of the facts and I will use science, and even the appearance of science, to bolster my argument in every legitimate way possible. In the same spirit, I'll be watching what my opponents across the aisle do and take every step to dull the scientific shine they may try to use.

Dr. Tal admittedly set out to keep his graphics simple and was careful not to include any additional information that was not in the written paragraph. In my opinion, he achieved that goal too well as there is actually less information on the graph then there is in the paragraph. That may be a good idea in his study, but it's a bad idea in the courtroom. So, in the interest of putting the luster of science to work for us, let's dial up the voltage a bit.

To refresh our memories, here is the text and the graph from the first study:

"A large pharmaceutical company has recently developed a new drug to boost peoples' immune function. It reports that trials it conducted demonstrated a drop of forty percent (from eighty seven to forty seven percent) in occurrence of the common cold. It intends to market the new drug as soon as next winter, following FDA approval."

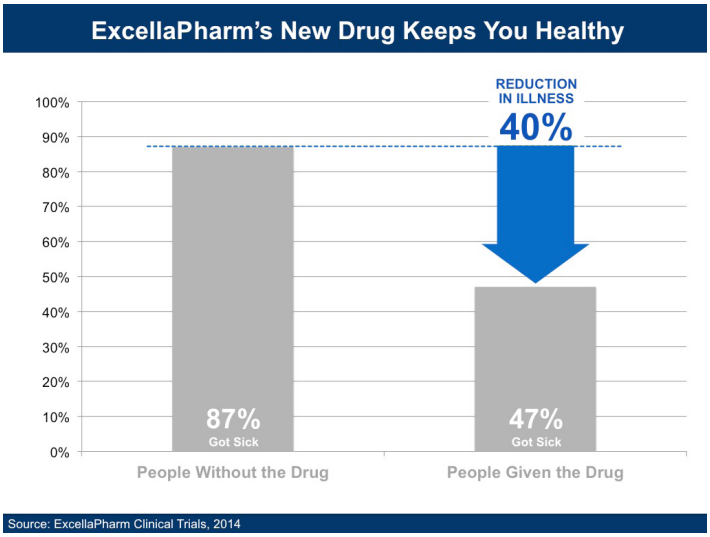
As graphs go, this one really stinks:



1. There is no reference to the pharmaceutical company that did the research. This information would lend whatever credibility that company has to the information presented in the graph.
2. There are no labels declaring the values represented by the bars. One must look at the axis and guess what the values are.
3. The most important information from the paragraph, "a

drop of forty percent" is nowhere to be seen. That calculation must be guessed at by comparing the relative height of the bars.

4. Given all of these shortcomings, I'm surprised this graph had any effect at all on the subjects. So, if this bad graph works so well, will an improved version have greater effect? You decide.



In this improved version, all the information from the paragraph is included: the company name, the rates of illness and, most importantly, the reported reduction of 40% takes center stage as the single most important item in the composition. We also label the bars directly rather than making the viewer track over to the vertical axis and make a guess on the value. We've eliminated the confusing terms "control" and "drug" and replaced them with easily understandable phrases. Also, note the advocacy in the title. A title should always tell the audience what the graph (or any other chart, timeline, etc.) means.

So, that's better. But, I don't think we're done yet. In the courtroom, we are all working from the same set of facts - but each side views those facts from a different perspective. In the study's chart, the data is framed as how many people got sick. Maybe that is how the data was reported, but I would say that is the negative perspective. Fear is an excellent motivator (see, e.g., politics), but we are only talking about the common cold, inconvenient but not particularly scary. So perhaps we should change our frame of reference and look at our data in terms of "health" instead of sickness. This gives us the positive perspective on the data and another graph:

In this version, we've turned the data on its head to focus on the number of people the drug kept healthy, the people who were protected from illness. In doing so, the impact seems much bigger. It's just math, of course, but I will take "300% healthier" over "40% less sick" any day! The careful reader will notice that I have also eliminated the vertical axis. The bars are still scaled and labeled accurately, of course, but this edit removes some extraneous visual information. I would rather have my audience focus on the message than be distracted by irrelevant tick marks and numbers.

In my opinion, both of these examples are improvements in communication over the graph used in the study. They both retain the halo of science that the study found so powerful. And, because they are more clear, more simple, perhaps that effect has become even more powerful. Indeed, the author's final conclusion is that "a very simple, easy to follow graphic presentation … may do better at bolstering the persuasiveness of an argument. As long as the element on display says 'science' to the observer, it can suffice to confer scientific credibility and persuade an audience."

So, sharpen your pencils, put on your thick glasses and talk nerdy to me.

Karyn J. Taylor responds:

Trial consultant, award-winning screenwriter, and veteran television news producer (60 Minutes, 20/20, Frontline), Karyn J. Taylor of The Strategic Image, trains trial attorneys to use the wisdom of social science research and the dramatic storytelling techniques perfected by Hollywood and television news to minimize the unpredictability of the verdict and maximize their ability to win. To schedule her groundbreaking CLE lecture, Winning by Design: The Masterful Way to Win in CourtTM, at your firm and capitalize on her 20 years of experience crafting emotionally compelling stories for court, call (773) 783-5900 or write thestrategicimage@comcast.net.

The Pros and Cons of Grammar School-Level Graphics in Court

Researchers Tal and Wansink's primary finding that "displaying scientific-looking elements can imbue evidence for a claim with a scientific halo that renders information more convincing" (*Looks Like Science, Must Be True! Graphs and the Halo of Scientific Truth)* may be a conclusion lay people deem merely common sense. After all, as human beings, we seem to be hardwired to seek proof that things are the way we think they are, and we were taught in grammar and high school that "science" is the study or investigation of a subject, object, or phenomenon done for the express purpose of determining the (presumably) unvarnished "truth" about it. No wonder then that research respondents who believed in science, or had a background in science, or even found the science a bit over their heads, all put unquestioning faith in that science and responded positively to scientific-looking graphs.

It is during college or graduate school, on the other hand, that we learn that data can be interpreted or manipulated in myriad ways, and that while data may provide evidence of *something*, it doesn't necessarily provide *proof* of anything at all. Given that fact, Tal and Wansink's finding that even their college-educated

respondents showed little skepticism of the graphs displayed during the study and deemed them to be persuasive on multiple levels is of particular note.

The researchers concluded that the lessons of grammar school die hard ("*It is merely the primary school association between graphs and science that is persuasive*"), and there is certainly plenty of real world evidence to support this conclusion, too—perhaps most obviously in the reports of clinical psychologists who labor daily to help untold millions of adults overcome the stickiness of their childhood and adolescent "programming" and lead happier adult lives.

But while the results of the current research may come as no surprise, they are results that trial attorneys would be well-advised to heed, nonetheless. Will the average juror—college-educated or no—put more stock in evidence or arguments supported by (what they assume to be) empirical data gleaned from (what they assume to be) rigorous and impartial scientific investigation? You bet. They've been doing it all their lives and they're not about to change now.

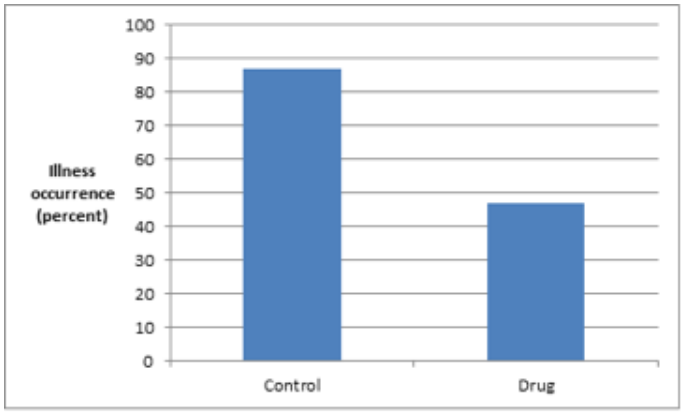
Does that same fact impose a very clear and unequivocal duty upon litigators to utilize graphs and other demonstratives whenever possible to give their clients the added benefit of the subliminal association jurors make between science and truth? Absolutely.

In the current article, however, Dr. Tal bemoans this lingering effect of grammar school education and worries that juries will be (or have been) unduly swayed, and verdicts materially altered, as a result of scientific-looking demonstratives. Personally, I see little cause for concern. There are way too many checks and balances built into the trial process (think cross examination and rebuttal, for starters), and far too many "monitors" present in court (think opposing counsel, opposing expert witnesses, and the six or twelve ordinary people in the jury box) for the verdict to go too far awry. *All* of the trial procedures and *all* of the factfinders are there for the express purpose of vetting, questioning, deconstructing, refuting, or exposing any and all assertions, assumptions, interpretations, representations, or obfuscations made, so researchers can take comfort in knowing that only rarely does anything truly false or deceptive survive the process long enough to hold significant sway in the end. The collective wisdom in the room is just too great.

Of course, knowing that judge, jury, opposing counsel, and expert witnesses will all scrutinize their presentations usually prevents trial attorneys from taking either their arguments or their demonstratives too far. But unfortunately, the fear of peer review doesn't deter litigators from attempting to create their own trial graphics. Admittedly, trial teams are often under pressure from corporate clients to control the upwardly spiraling costs of trial and clients frequently balk at hiring professional graphics consultants out of their (misguided) belief that, thanks to *PowerPoint*®, lawyers can create whatever demonstratives are needed on their own. But both litigators and their clients should think twice.

In my close to twenty years as a Trial Consultant, I have seen many more verdicts jeopardized by poorly designed graphics—or worse, by the use of no graphics at all—than I have ever seen jeopardized by the issues raised in Tal and Wansink's research. One need think only of the Trayvon Martin case (*State of Florida v. George Zimmerman*) to see an instance where egregiously amateurish, wordy, and disorganized *PowerPoint*® slides presented (and undoubtedly created) by the prosecution did more to *lose* the state's case than win it.

But using poorly designed bullet point slides is only one, all-too-common way in which lawyers sandbag their own courtroom presentations. An even greater mistake, in my opinion, is the "error of omission" lawyers make when they rely on words to explain what their courtroom demonstratives have failed to *show*. To illustrate my point, I direct your attention to Figure 1 from Dr. Tal's article—a graphic used in his research, but a graphic very similar to many I've seen lawyers introduce at trial.

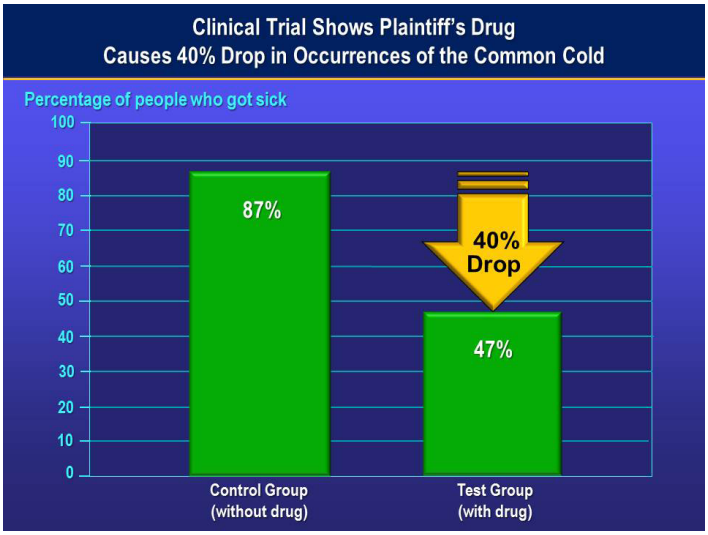


In court, the express purpose of a graphic is to persuade factfinders to see the case as you do. But unless you provide a context—a framework in which the data can or should be interpreted—and ensure that the graphic is self-explanatory, factfinders can (and often will) interpret the data in ways you may not foresee. That can undermine your argument and put your verdict at risk.In Figure 1, data is presented "as is." There is no explanation for why or how the data was collected, nor is there any clue as to what significance the data may hold. Instead, Figure 1 displays "raw" data only, and while it might be legitimately argued that displaying raw data is of value or even required during research to avoid influencing test subjects' responses in any way, there is no similar justification for presenting raw data in court.

Of course, most lawyers and expert witnesses will proceed to *tell* the jury how to interpret the data on a "bare bones" graphic such as Figure 1. But what if one or more jurors are distracted at that moment, lost in their own thoughts and not paying attention? Or what if some jurors have only grammar school educations and don't know how to read graphs? Or they are baffled by the "techno-speak" explanation of your expert wit-

ness?

If any one of these scenarios were to occur (and they do with great regularity), would Figure 1 be of any help? What if you were in the middle of a patent infringement case and your damages award depended on jurors understanding the infringed drug's value in the marketplace? Would you want to show jurors Figure 1, or would you rather rely on Figure 1A, below?



Designed by a legal graphics professional, Figure 1A depicts exactly the same information, but this time, the graphic is self-explanatory. Every juror will understand it, whether they've heard or understood the verbal explanation or not. More importantly, Figure 1 highlights the data critical to the client's damages claim and reinforces the main case theme, both of which may make a favorable outcome more likely. What might *that* be worth to your client or your case? Probably a lot more than the relatively minor cost of hiring the graphics consultant.

Drs. Tal and Wansink's research confirms that even simple graphics can have a major impact (*"…such convincing science images or graphs need not be complex"*), and I agree. As a Trial Consultant known for my ability to "dumb down" even the most complex science, I've seen in case after case just how powerful simple graphics can be. But litigators need to understand that in court, "simple" does not mean "raw." It means simple visual design, minimal use of self-explanatory text, and above all, clarity of purpose. A well-designed legal graphic makes only *one* point at a time, and ideally, that point reinforces your key case theme.

Yet all too often, would be "graphics designers" overburden their courtroom graphics with way too many words, ideas, pictures, colors, and/or fonts, thereby obscuring the message, overwhelming or confusing jurors, and undermining the graphic's ability to persuade. Better that trial teams heed Drs. Tal and Wansink who concluded that "complexity can be of disservice in persuasion."

Given the clarity of their research, it is curious that Dr. Tal uses the word "trivial" to describe the graphs his study indicated were so convincing ("*Even displaying trivial elements such as graphs can make information more persuasive*"). Unless Dr. Tal is using the word "trivial" to mean something other than unimportant, inconsequential, or banal (the common connotations), I am at a loss to understand how the term applies. Research studies too numerous to mention have shown that graphics are perhaps the most important persuasive tool litigators can use in court, and Tal and Wansink's own work supports that conclusion.

Lawyers must remember that they alone are trained in the art of oral persuasion. Jurors are not. Most jurors are visual learners who need to *see*, not just hear, information to best process and retain it, and as the jury pool gets younger and younger with each passing decade, that maxim holds truer still. Jury researchers now know (and litigators are becoming painfully aware), that the youngest jurors, the so-called Millennials, become impatient when lawyers talk instead of show, and in response, they promptly tune out. How could they not? Millennials are a generation raised on television, obsessed with Hollywood, and trained by the news media to receive and process information in 20-second soundbites and video clips. Millennials memorialize their lives with "selfies," communicate via *Snapchat* and *Twitter*, and fully embrace both the icon and the emoji. In so doing, they are merely reverting to simple forms of visual communication that, truth be told, have been hardwired into *homo sapiens* since our very first ancestors scratched images onto the walls of caves (the very first "selfies"). Communicating in pictures is not just what we do, it is who we *are*, and trial lawyers who are still relying on oral argument only are on a clear path to failure in court.

I would therefore encourage the researchers in this current study not to decry graphics as "decorative wrapping" for litigators to avoid, but rather to embrace the enormous power of graphics and to recognize graphics for the tremendous tools of persuasion they are. A well-designed reiterative graphic can condense into manageable bites the overwhelming amount of information routinely presented at trial, focusing juror attention on the case-critical wheat buried within the chaff. Similarly can a well-designed conceptual graphic rise above mere enumeration or illustration to *teach*—as great litigators and stellar expert witnesses always do—by using simple analogies and familiar contexts to enhance juror comprehension and justifythe client's point of view. (See "Discover the Power of Conceptual Persuasion" in *The Jury Expert,* 20:4(Nov. 2008):1-7).

If, in addition to all that, graphics also persuade by exploiting jurors' grammar-school-era faith in science, as the current research shows, then litigators should truly take heed. For now we know that the most powerful weapon of mass persuasion on the planet (the graphic) is even more powerful than we thought. Litigators: arm yourselves with graphics and never go to court again with just words or raw data alone.