

A publication of the American Society of Trial Consultants



Does Deposition Video Camera Angle Affect Witness Credibility?

Chris Dominic, MA, Jeffrey W. Jarman, Ph.D., and Jonathan M. Lytle, Ph.D.

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

Aner Tal, Ph.D.

Jury Instructions: Work In Progress

Steven E. Perkel, DSW, LCSW and Benjamin Perkel

"Soft" vs. "Hard" Psychological Science in the Courtroom

Geoffrey D. Munro, Ph.D. and Cynthia A. Munro, Ph.D.

FAVORITE THING

The Presidential Commission for the Study of Bioethical Issues Editorial Staff

Using The Other Side's Strikes: Regulating The Information Flow To Steer Your Opponent In Voir Dire

Roy Futterman, Ph.D.

Loyalty, Longevity and Leadership: A Multigenerational Workforce Update Douglas L. Keene, Ph.D. and Rita R. Handrich, Ph.D.

Top 10 Most Widely Read Jury Expert Articles Since 2011! Editorial Staff

NOTE FROM THE EDITOR

Thanks Ron Matlon and
Happy Trails!

Rita R. Handrich Ph.D.



ASTC 0000 AMERICAN SOCIETY OF TRIAL CONSULTANTS

IN THIS ISSUE...

1 Does Deposition Video Camera Angle Affect Witness Credibility?

> by Chris Dominic, MA, Jeffrey W. Jarman, Ph.D., and Jonathan M. Lytle, Ph.D.

- 12 Looks Like Science, Must be True! Graphs and the Halo of Scientific Truth by Aner Tal, Ph.D.
- **20** Jury Instructions: Work In Progress
 by Steven E. Perkel, DSW, LCSW and Benjamin Perkel
- **26** "Soft" vs. "Hard"
 Psychological Science in the
 Courtroom
 by Geoffrey D. Munro, Ph.D. and
 Cynthia A. Munro, Ph.D.
- **31** Favorite Thing: The Presidential Commission for the Study of Bioethical Issues by Editorial Staff
- 32 Using The Other Side's Strikes: Regulating The Information Flow To Steer Your Opponent In Voir Dire by Roy Futterman, Ph.D.
- 34 Loyalty, Longevity
 and Leadership: A
 Multigenerational Workforce
 Update
 by Douglas L. Keene, Ph.D. and Rita
 R. Handrich, Ph.D.
- **42** Top 10 Most Widely Read Jury Expert Articles Since 2011! by Editorial Staff

May 2015 Volume 27, Issue 2 Copyright © The American Society of Trial Consultants All Rights Reserved





Dr. Steven E. Perkel **Principal Consultant**

PO Box 583 Haddonfield, NJ 08033 sperkel@stevenperkel.com

856.816.7880 trialstrategy.net







Sonia Chopra, Ph.D.

(510) 832-2583 Phone (510) 839-8642 Fax

schopra@njp.com

1901 Harrison Street, Suite 1550 Oakland, CA 94612-3597

www.njp.com



Susan Macpherson

(612) 338-2244 Phone (612) 685-0520 Cell (612) 338-2607 Fax

smacpherson@njp.com

126 North 3rd Street, Suite 515 Minneapolis, MN 55401-1685

www.njp.com





Beth Bochnak, MA

(973) 408-6573 Phone (973) 216-6703 Cell (973) 408-9226 Fax

bbochnak@njp.com

7 Waverly Place Madison, NJ 07940-1927

www.njp.com





Patricia S. Rhinehart

Vice-President

New Orleans, LA 504/522-2115 Mobile, AL 251/660-2910 Charlotte, NC 704/491-8373

Toll-Free 866/660-2910 P.O.Box 190666 • Mobile, AL 36619 rsincorp@bellsouth.net





Member, American Society of Trial Consultants





TRIAL CONSULTING TRIALWHISPERER.COM



FULL SERVICE FOCUS GROUPS LAWFOCUSGROUPS.COM

Law Offices of Leigh E. Johnson A Professional Corporation (510) 245-2468 Leigh@law4leigh.com



LEFEVRE TRIAL CONSULTING

Adrienne LeFevre President

630.901.9017 direct 630.406.8206 office

Chicago * San Diego * NYC

www.lefevretc.com alefevre@lefevretc.com





Editor Rita R. Handrich, PhD rhandrich@keenetrial.com

> Associate Editor Jason Barnes jason@brtrial.com

Assistant Editor Brian Patterson brian@brtrial.com

The Jury Expert logo was designed in 2008 by: Vince Plunkett of Persuasium Consulting

The Jury Expert [ISSN: 1943--2208] is published bimonthly by the:

American Society of Trial Consultants 1941 Greenspring Drive Timonium, MD 21093

> Phone: (410) 560-2563 http://www.astcweb.org/

Additional ASTC Resources:

Deliberations Blog
The Red Well Blog Aggregator

The publisher of The Jury Expert is not engaged in rendering legal, accounting, or other professional service. The accuracy of the content of articles included in The Jury Expert is the sole responsibility of the authors, not of the publication. The publisher makes no warranty regarding the accuracy, integrity, or continued validity of the facts, allegations or legal authorities contained in any public record documents provided herein.

Thanks Ron Mation and Happy Trails!

S I WRITE THIS, Texas is water-logged and trying hard to dry off before the next rainstorms hit. It's a soggy start to summer but our normally parched summertime lawns and gardens appreciate it. As this issue of The Jury Expert uploads to the web, the American Society of Trial Consultants is meeting in Nashville, Tennessee for their annual conference. This year, we say goodbye to the long-time guidance of Executive Director, Ron Matlon. Ron has weathered many changes during his tenure at the helm of the organization and his absence will be missed. Ron has been consistently gracious and supportive of our efforts here at The Jury Expert and we will miss him on a day-to-day basis.

In addition to our warm wishes for Ron's retirement, this issue we have some intriguing research on whether a specific camera angle results in more positive ratings of your witness; whether even simplistic graphs will make more people believe your point of view; and a look at how juror's respond to hard science versus soft science findings in the courtroom. We also have an article on plain language jury instructions, an update on the multigenerational law firm workforce, getting the other side to strike who you want them to strike, and finally a Top 10 list of what articles have been most popular since we moved to a new software platform in 2011. Top that off with a fabulous Favorite Thing and our May issue is complete.

We read a wide range of papers here to figure out what we think you would like to see explained in our pages—but if we missed something, or you have something you'd like addressed, click my name below and send me an email about a request you have. If we can find someone to write about it, we will. (How easy is that?!)

Rita R. Handrich, Ph.D. Editor, *The Jury Expert*



Does Deposition Video Camera Angle Affect Witness Credibility?

by Chris Dominic, Jeffrey W. Jarman, Ph.D., Jonathan M. Lytle, Ph.D.

Introduction

OME TIME AGO, we (a group of jury consultants) were debating whether or not it increased a witness's credibility to have the video camera used in the deposition aimed directly at the witness or to the side at an angle. After all, this was a question we got from clients from time to time. The argument for putting the camera directly on the witness was that the viewer got direct eye contact and the look and feel was similar to something you would see on a television news program. Newscasters look straight ahead and speak to their audience by looking directly at the camera. The concern about this strategy was that it seemed too intentional. The witness would appear to be an advocate, thus decreasing their credibility. The argument for putting the camera off to the side was that it appeared more natural, and thus, it would bolster the witness's credibility. Unfortunately, the diagonal angle did not have the benefit of the perceived eye contact between the witness and the viewer. This left us wondering, where should the camera be positioned to maximize witness credibility in a videotaped deposition?

The importance of speaker credibility to the process of persua-

sion has been documented as far back as the ancient Greeks. As Aristotle noted, credibility "may almost be called the most effective means of persuasion" (1941, p. 1329). While scholars differ on the precise dimensions of credibility (elements such expertise, charisma, and trustworthiness), decades of research has confirmed its importance for persuasion. Historically, credibility was conceptualized as a source characteristic—an individual speaker had varying degrees of credibility based on their qualities. Recent efforts have shifted away from a source-based view of credibility and focused instead on a receiver-based view of credibility. There is now strong support for the idea that credibility is a perception held by the receiver (Stiff, 2003, p. 107).

An important aspect of the perception of credibility relates to the eye contact of the speaker. A long line of research has established the importance of eye contact for the perception of credibility. Beebe (1974) documented increasing amounts of eye contact resulted in increasing amounts of credibility. Similarly, Burgoon, Coker and Coker (1986) found "gaze aversion carries generally negative relational connotations" (p. 518). The link between eye contact and credibility has a direct effect on

persuasiveness. Burgoon, Birk and Pfau (1990) noted greater immediacy was associated with more favorable character judgments which was attributable mostly to eye contact. In addition, they found that as immediacy increased so too did persuasiveness, due mainly to factors such as eye contact. They also confirmed that increased credibility is associated with increased persuasiveness. Additional studies have supported the position that speakers are perceived positively when they exhibit strong eye contact. Brooks, Church and Fraser (2001) studied the duration of eye contact and confirmed "eye contact is clearly a dominant nonverbal cue that appears to convey confidence, control, and a positive emotional state" (p. 77). Wheeler, Baron, Michell and Ginsburg (1979) found increased eye contact was associated with the perception of higher intelligence. The lack of eye contact is related to negative perceptions of a speaker. Gaze aversion has been linked with the perception of deception (Zuckerman, Koestner & Driver, 1981). In fact, the Global Deception Research Team (2006) "uncovered a pancultural stereotype: that liars avoid eye contact" (p. 69). While the stereotype might not be reliable indicator of the truth, the perception remains that liars will not look you in the eye.

In a legal context, several studies have investigated the use of video taped depositions and witness credibility. Hemsley and Doob (1978) used video taped testimony of a witness to compare the effects of gaze maintenance versus gaze avoidance. The testimony was approximately 2 minutes in length. In the gaze maintenance condition, the witness looked directly at the target of their communication, in this case, the attorney. In the gaze avoidance condition, the witness testified while looking slightly downward. In both cases, the attorney was not visible on the videotape. Their finding was obvious: witnesses who look away from the target of their communication were less credible than those who looked at the target of their communication.

Neal and Brodsky (2008), in their study of eye contact and expert witness credibility, manipulated the amount of eye contact by a witness on the witness stand while delivering approximately 5 minutes of testimony. There were three important differences between this study and that of Hemsley and Doob. First, the camera angle included a part of the attorney's body (the back of the shoulder and head) to provide a clear reference that the witness was speaking directly to the attorney who asked the questions. Second, the eye contact of the witness varied between the attorney (with eyes shifted slightly to the side of the screen) and with the mock jury (with eyes looking directly in to the camera). Finally, eye contact was the cumulative gaze at both the attorney and the jury and it was varied to include a total amount of eye contact that was low (30-seconds), moderate (2.5 minutes), or high (4 minutes). The findings of their research are not surprising: witnesses in the high eye contact condition had significantly higher credibility ratings than those in the moderate and low eye contact conditions.

Finally, Miller and Fontes (1978) used real jurors to investigate a wide range of topics related to the introduction of videotaped information at trial. In one particularly useful study, they compared strong and weak witnesses presented on videotape using various camera shots (close-up, waist up, and long). Not surprisingly, they found that strong witnesses were rated better than weak witnesses on characteristics such as composure, dynamism, and perception of qualification. The type of camera shot used, however, had no significant effect. As they stated, there are "no grounds for concluding that the type of camera shot used (closeup, medium, or long) would independently influence juror perceptions of witnesses" (Miller & Fontes, 1978, p. 172)

These studies provide clear support for the proposition that witnesses should maintain eye contact when providing testimony. That is, gaze maintenance is superior to gaze avoidance. But, none of studies provide clear support for where deponents should cast their gaze. In a traditional videotaped deposition, the deponent is forced to choose between looking straight ahead, as if they are speaking to the jury, or to the side, speaking to an attorney who almost always is not visible. The question of credibility remains: will jurors infer gaze avoidance by the lack of direct eye contact with the camera? On the basis of the prior research, this project set out to investigate the effect of horizontal gaze on speaker credibility. In particular, we were guided by the following research question: Will depositions videotaped at different horizontal camera angles result in different witness credibility evaluations?

Methodology

The design was a 2 x 2 (witness and camera angle) variable study. The stimuli for the experiment were two different mock depositions involving the demutualization of a company's stock. The topic was chosen to reduce bias since we assumed few, if any, participants had significant knowledge or expertise in the subject area. Both recordings were approximately 5 minutes in length. One deposition portrayed the plaintiff in the lawsuit and the other deposition portrayed a board member of the defendant company. The depositions were recorded using two cameras, one directly in front of the witness and one angled to the left of the witness. In order to control for possible confounding variables, the same individual portrayed both witnesses in the same clothing.

Two hundred and seventy-four participants were recruited from Amazon's Mechanical Turk online labor service (in exchange for \$.80 to complete the survey). Mechanical Turk provides a reliable pool of participants for academic research (Buhrmester, Kwang & Gosling, 2011). After watching the video, participants answered several demographic questions and a modified version of the Witness Credibility Scale (Brodsky, et al., 2010). One adjective ("scientific") was removed from the 20-item scale. The dependent measure used to assess the witness's credibility showed high internal consistency (a = .943). Participants ranged in age from 18 – 70 years with a median age of 30. 53.3% were female and 46.7% were male. 77% were white, 7.7% were African American, 7.3% were Asian, 6.2%

were Hispanic, less than 1% were Native American, and 1.5% described themselves as "other." Participants were randomly assigned to one of the four conditions.

Results

A 2-way ANOVA was conducted on witness credibility with camera angle (straight, angled) and witness (plaintiff, defense) as between-subjects independent variables. There was no significant main effect for camera angle, F(1, 270) = .035, p =.851. The witness was not rated as significantly more or less credible when the camera was directly in front of him (M =131.62) than when it was angled to the side (M = 132.50). There also was not a significant interaction between camera angle and the witness, F(1, 270) = .927, p = .337. The plaintiff witness credibility ratings were not significantly different when he was viewed directly (M = 124.26) than when he was viewed at an angle (M = 128.10). Likewise, the defendant witness credibility ratings were not significantly different when he was viewed directly (M = 139.89) than when he was viewed at an angle (M = 137.31). There was a main effect for the role of the witness, F(1, 270) = 13.86, p < .001, $h^2 = .05$. The defendant witness (M = 138.60) was rated as significantly more credible than the plaintiff witness (M = 126.15).

Conclusion

The perceived credibility of a witness can play a significant role in the outcome of a case. Traditional factors such as demeanor, confidence, appearance, vocal quality, nonverbal gestures, and eye contact clearly affect the perceptions of a witness. The increasing use of videotaped depositions at trial introduces additional elements, such as production quality and camera angle, that could further influence the perceptions of a witness. This project sought to investigate one production technique, horizontal camera angle, to determine its role in the persuasive process. Would perceptions of a witness's credibility be influenced by the horizontal camera angle? The results were clear: camera angle had no impact on participants' ratings of witness credibility. The witness was no more or less credible when he was recorded looking directly at the camera than we he was recorded at an angle. Neither camera position offered an advantage over the other.

The results shed light on the role of the camera in the process of conveying eye contact. Previous studies conceptualized direct eye contact with the camera as analogous to eye contact with the jury. Looking toward the camera suggested the witness was looking at the jury whereas looking away from the camera conveyed avoidance with the jury. One possible explanation for the null results of the current study is that the witness maintained strong eye contact regardless of the camera angle. The witness rarely broke eye contact with the attorney asking questions. While the attorney was not visible, the witness looked

straight ahead. In the direct camera angle condition, it created the appearance of looking in to the camera. But, even in the angled camera condition, it was clear that the witness maintained eye contact with someone, who was off camera. Regardless of the camera angle, the witness did not exhibit gaze avoidance. This suggests a powerful role of context in the evaluation of a witness, even one providing testimony via videotape. The participants easily inferred the witness was making eye contact. The classic cues of looking away (either down or up) or moving the head to gaze in a different direction (lacking focus or giving the perception of being disengaged) were not present in the videotaped deposition. The participants did not penalize the witness, or otherwise judge them to be less credible, since they were making eye contact, even if it wasn't directly with them. This is consistent with other research on juror's expectations for eye contact by witnesses. Boccaccini and Brodsky (2002) asked respondents where a witness should look when testifying at trial. The respondents understood that eye contact would shift between the attorney asking the questions and the jury. The most common answer, with 41% support, was "at you [the jury] some of the time and at the attorney some of the time." An additional 24% thought it should be "at you [the jury] occasionally and mostly at the attorney," with another 20% offering that it should be "not at all at you [the jury] and always at the attorney." In other words, jurors expect the witness to make eye contact, but they understand it will vary between the attorney and the jury. As our research confirmed, witnesses who sustain eye contact, even with an attorney who is not visible during a videotaped deposition, will not suffer damage to their credibility by the jury.

One potential limitation of the current study is that the witness in the "direct" camera position never broke eye contact with the camera lens, possibly appearing unnatural and atypical of an actual witness in deposition. Likewise, a less "polished" witness performance could produce varying results. Future research should seek to explore whether variations in eye contact affects ratings of witness credibility. Furthermore, it is worth noting that one of the primary criticisms of the direct deposition view is the inability for many deponents to naturally look into a camera lens instead of another person's face. Their discomfort with looking at the camera could send unintended non-verbal messages to the viewer that lower credibility. This could be magnified if the deponent must turn back and forth between the attorney asking questions and directly in to the camera for the answer. It is possible that the current study, with the attorney seated very close to the camera, minimized the awkwardness and artificiality of looking at a camera. Future research should consider the direct view with the attorney asking questions from various locations in the room. Finally, future research should consider testing all of these conditions with average and low performing witnesses to determine if any of these differences become more pronounced based on witness ability. 10

Chris Dominic serves as President and Senior Consultant of Tsongas Litigation Consulting, Inc. He leads the company's national practice and counsels clients on cases that range from everyday litigation and ADR to some of the highest profile, highest stakes trials in the nation. Dominic began working with Tsongas in 1987. He was elected by his peers as President of the American Society of Trial Consultants (ASTC) for the 2007-2008 term.

Jeffrey W. Jarman, Ph.D. is an Associate Consultant for Tsongas. He is also currently the Associate Director of the Elliott School of Communication and the Director of Debate and Forensics at Wichita State University. In his work with Tsongas, Dr. Jarman has applied his knowledge of persuasion, argument, and human communication dynamics to mock jury research analysis, witness preparation, and case strategy. Dr. Jarman teaches in communication analysis, political communication, and research methods. He also serves as the lead political analyst for KSN-TV in Wichita.

Jonathan M. Lytle, Ph.D. is Tsongas' Research Manager and Consultant. His expertise in human behavior and legal psychology adds a unique dimension to the Tsongas team and informs his work with attorneys. Lytle applies this expertise to case strategy development, jury selection, focus groups, and mock jury exercises, as well as survey research and questionnaire development. He is a member of the American Society of Trial Consultants.

References

Aristotle. (1941). On rhetoric. In R. McKeon (Ed.), *The basic works of Aristotle*, (trans. W. R. Roberts), pp. 1318-1451. New York: Random House.

Avery, R. K. & Long, J. F. (1976). The effect of vertical camera angle on the perceived credibility of a televised speaker. Paper presented at annual convention of Western Speech Communication Association, San Francisco, CA, November 22, 1976.

Beebe, S. A. (1974). Eye contact: A nonverbal determinant of speaker credibility. Speech Teacher, 23, 21-25.

Boccaccini, M.T. & Brodsky, S.L. (2002). Believability of expert and lay witnesses: Implications for trial consultation. *Professional Psychology: Research and Practice*, 33, 384-388.

Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The Witness Credibility Scale: an outcome measure for expert witness research. *Behavioral Sciences and the Law, 28*, 892-907.

Brooks, C. I., Church, M. A., & Fraser, L. (2001). Effects of duration of eye contact on judgments of personality characteristics. *Journal of Social Psychology, 126*, 71-78.

Burgoon, J. K., Birk, T., & Pfau, M. (1990). Nonverbal behaviors, persuasion, and credibility. *Human Communication Research*, 17, 140-169.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of Inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3-5.

Burgoon, J. K., Coker, D. A., & Coker, R. A. (1986). Communicative effects of gaze behavior: A test of two contrasting explanations. *Human Communication Research*, 12, 495-524.

Hemsley, G. D. & Doob, A. N. (1978). The effect of looking behavior on perceptions of a communicator's credibility. *Journal of Applied Social Psychology*, 8, 136-144.

Global Deception Research Team. (2006). A world of lies. Journal of Cross-Cultural Psychology, 37, 60-74.

Kepplinger, H.M. & Donsbach, W. (1990). The impact of camera perspectives on the perception of a speaker. *Studies in Educational Evaluation*, 16, 133-156.

Mandell, L. M. & Shaw, D. L. (1973). Judging people in the news—unconsciously: Effect of camera angle and bodily activity. *Journal of Broadcasting*, 17, 353-

Meyers-Levy, J. & Peracchio, L. A. (1992). Getting an angle in advertising: The effect of camera angle on product evaluations. *Journal of Marketing Research*, 29, 454-461.

McCain, T. A., Chilberg, J., & Wakshlag, J. (1977). The effect of camera angle on source credibility and attraction. *Journal of Broadcasting*, 21, 35-46.

Miller, G. R. & Fontes, N. E. (1978). Videotape on trial: A view from the jury box. Beverly Hills, CA: Sage Publications.

Neal, T. M. S. & Brodsky, S. L. (2008). Expert witness credibility as a function of eye contact behavior and gender. *Criminal Justice and Behavior*, 35, 1515-1526.

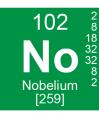
Stiff, J. B. & Mongeau, P. A. (2003). Persuasive communication. New York: Guilford Press.

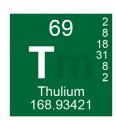
Tiemens, R. K. (1970). Some relationships of camera angle to communicator credibility. *Journal of Broadcasting*, 14, 483-490.

Wheeler, R. W., Baron, J. C., Michell, S., & Ginsburg, H. J. (1979). Eye contact and the perception of intelligence. *Bulletin of the Psychonomic Society*, 13, 101-102.

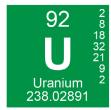
Zuckerman, M., Koestner, R., & Driver, R. (1981). Beliefs about cues associated with deception. *Journal of Nonverbal Behavior*, 6, 105-114.

Image by jsawkins at flickr.com

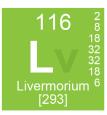


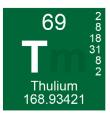














Looks Like Science, Must be True! Graphs and the Halo of Scientific Truth

by Aner Tal, Ph.D.

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

MAGINE 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 sup-

port 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).

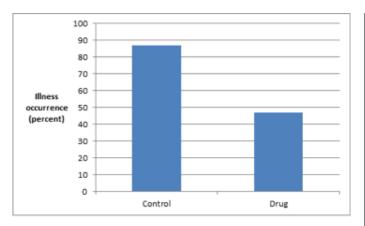
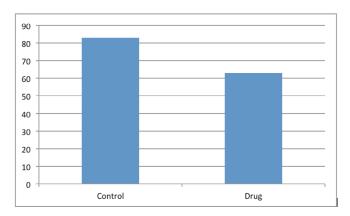


Figure 1: Graph Used in Study 1

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.



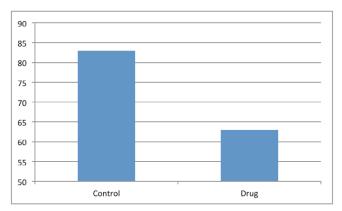


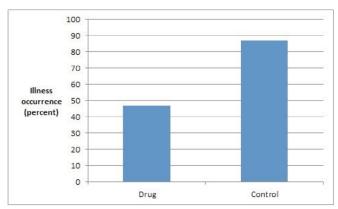
Figure 2: Graphs used in study 2

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.



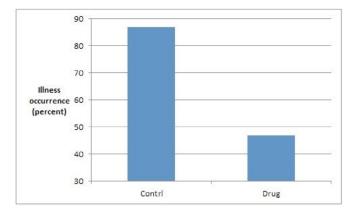


Figure 3: Graphs from final study

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.

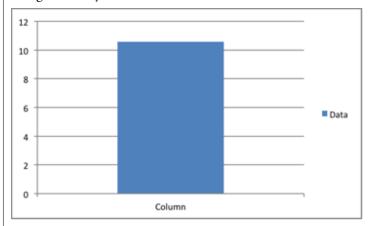
Discussion: The Power to Make Believe

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.

References

Alter, A. L., Oppenheimer, D. M., Epley, N., & Eyre, R. N. (2007). Overcoming intuition: metacognitive difficulty activates analytic reasoning. Journal of Experimental Psychology: General, 136(4), 569.

Ariely, D. (2008). Predictably irrational. New York: HarperCollins.

Childers, T. L., Houston, M. J., & Heckler, S. E. (1985). Measurement of individual differences in visual versus verbal information pro-

cessing. Journal of Consumer Research, 12(2),125-134.

Fernandez-Duque, D., Evans, J., Christian, C., & Hodges, S. D. (2014). Superfluous Neuroscience Information Makes Explanations of Psychological Phenomena More Appealing. Journal of Cognitive Neuroscience, 20(3), 470-477.

Greene J, Cohen J (2004). For the law, neuroscience changes nothing and everything. Phil Trans R Soc Lond B Biol Sci 359: 1775–85.

Greene, E., & Cahill, B. S. (2012). Effects of neuroimaging evidence on mock juror decision making. Behavioral Sciences & the Law, 30(3), 280-296.

Haard, J., Slater, M. D., & Long, M. (2004). Scientese and ambiguous citations in the selling of unproven medical treatments. Health Communication, 16(4), 411-426.

McCabe, D. P., & Castel, A. D. (2008). Seeing is believing: The effect of brain images on judgments of scientific reasoning. Cognition, 107(1), 343-352.

Oppenheimer, D. M. (2008). The secret life of fluency. Trends in Cognitive Sciences, 12(6), 237-241.

Scurich, N., & Shniderman, A. (2014). The Selective Allure of Neuroscientific Explanations. PLoS One 9.

Tal, A., & Wansink, B. (2014). Blinded with science: Trivial graphs and formulas increase ad persuasiveness and belief in product efficacy. Public Understanding of Science, 1-9.

Weisberg, D.S., Keil, F.C., Goodstein, J., Rawson, E., Gray, J.R. (2008). The seductive allure of neuroscience explanations. J Cogn Neurosci 20: 470 – 477.

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.

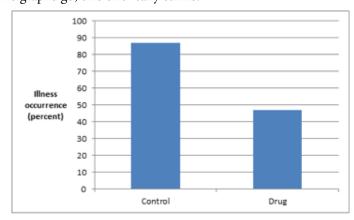
Dr. Tal admittedly set out to keep his graphics simple and was careful not to include any additional information that was not in the written paragraph. In my opinion, he achieved that goal too well as there is actually less information on the graph then there is in the paragraph. That may be a good idea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

ting 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:

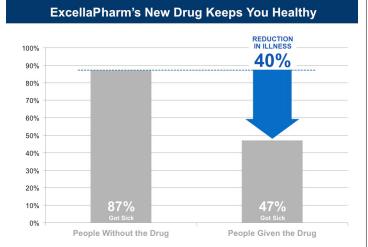
"A large pharmaceutical company has recently developed a new drug to boost peoples' immune function. It reports that trials it conducted demonstrated a drop of forty percent (from eighty seven to forty seven percent) in occurrence of the common cold. It intends to market the new drug as soon as next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



Source: ExcellaPharm Clinical Trials, 2014

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 ground-breaking 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.

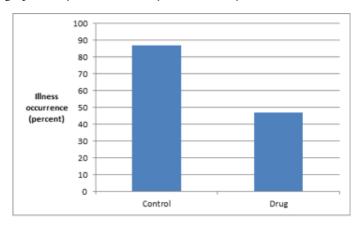
In the current article, however, Dr. Tal bemoans this lingering effect of grammar school education and worries that juries will be (or have been) unduly swayed, and verdicts materially altered, as a result of scientific-looking demonstratives. Personally, I see little cause for concern. There are way 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 court-room 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.

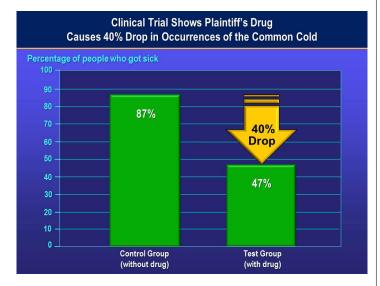


In court, the express purpose of a graphic is to persuade factfinders to see the case as you do. But unless you provide a context—a framework in which the data can or should be interpreted—and ensure that the graphic is self-explanatory, factfinders can (and often will) interpret the data in ways you 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.

Jury Instructions: Work in Progress

by Steven E. Perkel, DSW, LCSW and Benjamin Perkel

HE INSTRUCTIVE PHRASE, "begin with your destination in mind," provides the essential principle and starting point for the creation of jury instructions. (Covey, 1989). Jury instructions are the final legal education and procedural guidance jurors receive prior to entering deliberations. Based on when they are given and the content they cover, jury instructions play an influential role in how jurors ultimately arrive at a verdict. While drafters of juror instructions always have good intentions, the research indicates that "[J]urors don't understand their instructions as well as they think they do, as well as judges would like to think they do or as well as we in Society might hope they do." (Devine, 2012, pg. 56)

Jury Instructions Affect Millions of Americans Every Year

Every jury, in every jury trial, in every jurisdiction in America relies on instructions that are congruent with the law and are understandable. Mize, Hannaford-Agor & Waters (2007), in their State of the States research, estimated that there were 148,558 jury trials in U.S. state courts each year, with 1,526,520 adults being impaneled to serve on those juries.

- 47% of the trials were related to felonies
- 31% related to civil issues
- 2% involved misdemeanors and other matters

Clearly, a significant number of trial events involving juries occur each year, despite the increasing frequency of plea bargains, settlements and matters resolved through alternative dispute processes. This means that there are more than a hundred thousand opportunities each year for lawyers, judges and juries to get jury instructions right (or wrong). In many cases, understanding the instructions given by a judge to a jury is truly a matter of life and death (Dumas, 2014).



Why Are Jurors Confused?

- Legal language is complex
- Jurors are legal novices
- Relatively low average literacy levels
- Jurors often rely on schemas, stereotypes and shortcuts
- The timing of instructions also may be part of the problem

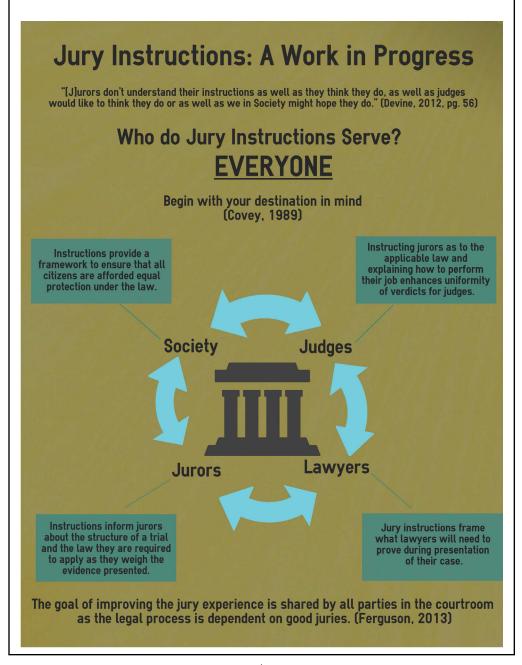
Legal Language is Complex

Jury instructions are drafted by practicing lawyers and judges based on statutes and case law. Unlike most jurors, lawyers and judges have successfully completed law school and have spent years honing their legal reading, writing and analytical skills. 'Studies have almost universally found that jurors are confused by jury instructions and often disregard them." (Gordon, 2013, pg. 644).

In 1979, Charrow and Charrow completed the first empirical psycholinguistic study of standard jury instructions. They sought to identify problematic grammar, semantics, vocabulary and the structure of jury instructions that made compre-

Jury Instructions Serve Everyone

The legal process is dependent on juries that function well and the goal of all stake-holders ought to be improving the quality of jury performance – specifically through better, understandable instructions. The stakeholders include:



hension difficult. The study revealed that **linguistic complexity was a greater contributor to poor understanding than legal complexity**.

When language was simplified comprehension improved. We suggest a fair take away from the Charrows' research is that comprehension is not necessarily made more difficult by the legal concepts embedded in jury instructions; rather, the complex linguistic structure, which is akin to a dialect or foreign language (a.k.a., "Legalese"), is the culprit.

Consistent with Charrow and Charrow, other researchers and scholars who study the language of jury instructions have found the following:

- Formal language tends to reduce comprehension, especially for people who have had relatively little education (Tiersma, 2009).
- Plain language studies and reports document difficulty in lawyer-crafted instructions (Ferguson, 2013).
- Instructions often contain words that have different meanings to the lawyers who wrote them and the jurors who are

asked to apply them (Gordon, 2013).

• When a word or phrase has a unique legal definition (e.g. burglary, assault, kidnapping) differing from how it is used in everyday conversation, jurors are required to replace the established ordinary meaning with the novel legal meaning (Tiersma, 2014).

Jurors Are Legal Novices

Even though there are many trials each year in America, jurors are legal novices, and therefore view and interpret both the law and facts differently than lawyers and judges. Additionally, most instructions do not do enough to help jurors compensate for their lack of legal expertise, as they are often not drafted with novices in mind, nor do they utilize plain language principles that would best ensure novices fully comprehend the law (Gordon, 2013).

Therefore, officers of the court must provide jurors with the applicable law in the form of understandable jury instructions. The law must be given and explained to jurors so that they are able to comprehend and apply it as intended, and to use it as an official decision-making framework that ensures uniformity (Tiersma, 2014, Ferguson, 2013, Gordon, 2013).

Low Average Literacy Levels

The U.S. Department of Education, National Institute of Literacy found that 21% to 23% of adult Americans were not "able to locate information in text", could not "make low-level inferences using printed materials", and were unable to "integrate easily identifiable pieces of information (Kirsch, Jungeblut, Jenkins, & Kolstad, 2002).

Furthermore, The Plain Language at Work Newsletter reports that 14 percent (30 million) of adults in the U.S. are functioning at Below Basic, defined simply as "not having adequate reading skills for daily life." These are people who cannot read, must struggle to read, or cannot cope with unfamiliar or complex information. It is noteworthy that people with Below Basic reading skills cannot:

- Understand the instructions on a medicine container,
- Read a newspaper article or a map,
- Read correspondence from their bank or any government agency,
- Fill out an application for work, or
- Read the safety instructions for operating machinery (DuBay, 2013).

Communicating is different from merely speaking or reading to someone. You can speak to someone without that person understanding what you said, such as when two people do not share the same language. Accordingly, if the reading level for many Americans is below basic levels, and the reading level required to understand jury instructions has been found to be at or above a 12th grade level, it is not surprising that many jurors have difficulty understanding the instructions given by a judge (Small, Platania & Cutler, 2013).

Reliance on Schemas, Shortcuts and Stereotypes

In the face of ambiguity, jurors turn to schemas, incorporating their everyday knowledge and understanding of concepts into their interpretation of legal rules and application to the facts presented (Gordon, 2013). Communication requires that the audience actually understand what you intended to communicate. If the audience does not understand, the attempt to communicate has failed. Simply reading instructions to jurors cannot, by itself, be considered communication (Tiersma, 2014). When communication fails, jurors are likely to substitute commonsense, prior experiences, easier questions, stereotypes and cognitive shortcuts to facilitate their decision-making (Cialdini, 2001). While these adaptive responses to complexity and poor communication are useful in everyday life, they become a problem for jurors because they may or may not be consistent with the law and facts as they were given to them.

Like social science researchers who value high rates of interobserver reliability, our legal system values the consistent application of the law from case to case. However, when there is confusion around language, terms of art and the law itself, uniformity may be sacrificed, thereby denying or interfering with equal protection under the law. As members of the legal community, it is our joint obligation to protect the Constitutional rights conferred upon members of our society by continuing efforts to make jury instructions more understandable.

When Do Instructions Appear During a Trial?

In real estate, it is often said that "location, location" is king. In jury trials, timing and placement of instructions is also important.

Voir Dire

The jury selection process is explained and potential jurors are educated about why jury selection is such an important aspect of the American legal system.

Preliminary Instructions

Jurors are educated about their duties, the definition of evidence is explained, the burden of proof to be applied is introduced and the trial process is described.

Immediately before beginning deliberations

Legal principles are recited, instructions are given to guide deliberations and the jury's role as the sole finders of fact is reinforced.

During deliberations

The instructions provided are implemented and questions seeking further clarification of issues may be asked.

And they are expected to listen, learn and apply all that they have heard over several days to several months in comparative isolation from what they experience in their pre and post jury service life.

A Blueprint for Improvement

Although progress to improve jury instructions (and trial practice in general) may be slow, advocates for reform have made progress that shows that modifications to improve the process can take root and grow (Ferguson, 2013). There are several simple steps that can be taken to overcome jurors feeling like strangers in a strange land. We suggest several below:

Use Checklists

The following checklist will help you make sure your jury instructions are understandable:

- Use understandable vocabulary (*e.g.*, use "important" rather than "material")
- Use conventional grammar and simple sentence structure
- Use concrete phrasing rather than abstract phrasing
- Use the active voice
- Do not use double negatives
- Use examples relevant to everyday life
- Remind jurors of their fact-finding role
- Educate jurors about how to deliberate
- Explain why jurors are asked to do things a certain way
- Provide glossaries for legal terms, particularly when their legal meaning is different from their colloquial meanings (e.g., "burglary" or "negligence")

Explore resources from Federal and State Judicial Committees

- Guidelines for Preparation of Jury Instructions (available at http://www.fjc.gov/public/pdf.nsf/lookup/CivLit2D_ Form47.pdf/\$file/CivLit2D_Form47.pdf)
- Benchbook for U.S. District Court Judges Outline for giving Instructions (available at http://www.fjc.gov/public/ pdf.nsf/lookup/benchbk.pdf/\$file/benchbk.pdf)
- Judicial Writing Manual: A Pocket Guide for Judges (available at http://www.fjc.gov/public/pdf.nsf/lookup/judicialwriting-manual-2d-fjc-2013.pdf/\$file/judicial-writing-manual-2d-fjc-2013.pdf)
- Judicial Council of California Plain Language Instructions (available at http://www.courts.ca.gov/partners/juryinstructions.htm)
- Florida Supreme Court Standard Jury Instructions Committee "Plain English" modifications (available at http://www.floridasupremecourt.org/civ_jury_instructions/index.shtml)

Tools for Change

- Judges can give instructions on the applicable law they must apply in a case before opening statements.
- Just as attorneys benefit from the "trial notebooks" jurors
 may do so as well. Juror's trial notebooks may include
 the instructions of the court, lists and examples of the
 evidence that has been admitted, stipulations between
 the parties, witness lists and in the case of experts their
 qualifications.
- Since definitions are critical for framing the law and explaining a jury's duties, glossaries containing definitions of

key terms could be valuable reference guides to help jurors remain focused on the proper definitions during presentation of evidence and during deliberations.

• Judges and counsel could be permitted to, and could agree to, consider and answer jurors' questions about the instructions guiding deliberation.

• Jury instructions can be written in the active tense, using plain language to enhance jurors' understanding of the law.

- The timing of when instructions are given can improve their effectiveness. Instructions given before closing arguments can provide a judicial context counsel can reference during closing arguments.
- Giving jurors copies of the written instructions they can refer to so they remain on point can improve understanding. Providing jurors written instructions reduces the need to listen and attempt to retain what the judge is saying while also anticipating what may come next.
- Using an electronic presentation to accompany the instructions given by the judge and allowing jurors to take the presentation with them into deliberations is worthy of consideration. This approaches maximizes the impact of sight and sound in the service of enhancing understanding.
- Providing guidelines that facilitate effective and civil discussion during deliberations can reduce ambiguity about how to get started and stay on task. Historically, judges have been reluctant to provide any guidance regarding deliberation for fear that it may result in a verdict being overturned at the appellate level. While this is a legitimate concern, establishing new norms that keep jurors from becoming bogged down is also a worthy goal. Jurors must understand that passionately held feelings are not evidence and that a civil, though passionate, deliberative process serves all parties well.

Mindfulness: A Tool to Improve Jury Service

Mindful people are aware of their thoughts, emotions, physical sensations, pre-existing beliefs, as well as contextually defined obligations. As a self-management tool mindfulness enhances competence, critical thinking and civility. It also reduces the likelihood that impulsivity, reliance on erroneous pre-existing beliefs, stereotypes, bullying and counterfactual assumptions will prevail when jurors deliberate.

Mindfulness benefits all of the stakeholders involved in a trial. A mindful judge is aware that jury instructions written in legalese are hard to understand and thus becomes an advocate for the clarity that plain language provides. A mindful lawyer avoids verbally assaulting an adversary when civility and assertiveness will do. A mindful juror becomes aware of their biases, their obligation to follow the law as given to them and does not rush to conclusions based on pre-existing beliefs, stereotypes or schemas (Langer, 2000, Jacobowitz, 2013).

Focus-Refocus: Helping Jurors Succeed

When we ask jurors to wade through instructions that are hard to understand and reach a verdict based on the facts of the case in the context of the law, we are asking them to employ their reflective capacities. We generally ask them to do this toward the end of a trial when they may be tired, bored, frustrated, confused and ready to go home. To complete their job, jurors may rely on reflexive processing and shortcuts that include in-

complete heuristics such as framing, anchoring, hindsight, and assumptions about extrapolating from a sample to a population or personal experience. Asking jurors to evaluate their assumptions, how they frame and reframe issues, to employ the definitions given by the court in a jury charge and what the law requires will help them remain on task and on point. (Casey, Burke, & Leben, 2013).

Trial Consultants Can Help

Trial consultants possess expertise in written, spoken and visual communication, as well as trial processes. Utilizing this unique combination of competencies, trial consultants can make meaningful contributions to enhance jurors' abilities to understand the law, evaluate evidence, and engage in efficient, productive deliberative processes. Additionally, as the courts and their committees develop and consider implementing changes in jury instructions, trial consultants can utilize their expertise in research design and analysis to help evaluate the effectiveness of proposed changes in language, definitions, procedures and instructional methods.

The Tools for Change discussed in this article illustrate some of the specific ways jury instructions and juror effectiveness may be improved. The design, development, testing and implementation of the innovations noted above require the courage to change traditional but ineffective communication practices. At the same time, we must ensure that any changes made are consistent with the legal system's core values and collective mission of preserving all citizen's constitutional right to equal protection and due process under the law.

Steven E. Perkel, DSW, LCSW, is Founder and Managing Member of Steven E. Perkel & Associates, LLC, a Strategy and Communication Consultancy.

Benjamin Perkel is Senior Research Analyst & Graphic Design Coordinator, Steven E. Perkel & Associates, LLC, a Strategy and Communication Consultancy.

As this article took shape, Sara Gordon, Associate Professor of Law at the William S. Boyd School of Law | UNLV, graciously shared her knowledge and insights- Thanks Professor Gordon.

For further information contact Dr. Perkel at sperkel@stevenperkel.com.

Selected Reference List

Casey, P., Burke, K., & Leben, S., (2013). Minding the court: enhancing the decision-making process, International Journal of Court Administration, Available at http://www.iaca.ws/files/ijca_tenth_edition/Casey-Burke-Leben-Decision-Making_Process.pdf. Retrieved April 1, 2015.

Charrow, R., & Charrow, V. (1979). Making legal language understandable: A psycholinguistic study of jury instructions, *Columbia Law Review 79*,1306-1320.

Cialdini, R. B., (2001). Influence science and practice, 4th edition, Boston, Allyn and Bacon.

Covey, S., (1998). The seven habits of highly effective people. New York, Simon & Schuster.

Devine, D.J. (2012). Jury decision-making, the state of the science, New York, New York University Press.

DuBay, W. (2013). Know your readers, The plain language at work newsletters. Available at www.impact-information.com/impactinfo/literacy.htm. Retrieved on April 10, 2015.

Dumas, B. K, (2014). Reverse engineering of jury instructions. Tennessee Journal of Law & Policy, Volume 5, Issue 2, Article 5. Available at http://trace.tennessee.edu/tjlp/vol5/iss2/5. Retrieved March 31, 2015.

Ferguson, A., G., , (2013). Jury instructions as constitutional education. University of Colorado Law Review, Volume 84, Issue 2. Available at http://ssrn.com/abstratc=2014089. Retrieved March 30, 2015.

Gordon, S., (2013). Through the eyes of jurors: the use of schemas in the application of plain-language jury instructions. Hastings Law Journal, Volume 64, *Issue 3. Available at:* http://www.hastingslawjournal.org/category/archives/volume-64/volume-64-issue-3/. Retrieved on March 26, 2015.

Jacobowitz, J., (2013). The benefits of mindfulness for litigators, Litigation, Volume 39, Number 2. The American Bar Association. Available at http://www.americanbar.org/publications/litigation_journal/2012_13/spring/benefits-mindfulness.html. Retrieved April 14, 2014.

Kirsch, I.S., Jungeblut, A., Jenkins, L., Kolstad, A., (2002). Adult literacy in America. A first look at the findings of the national adult literacy survey, Third edition U.S. Department of Education, Office of Educational Research and Improvement. National Center for

Educational Statistics. Available at https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=93275. Retrieved April 10, 2015.

Langer, E., (2000). Mindful learning, Current Directions in Psychological Science, Volume 9, Number 6, December, 2000, doi: 10.1111/1467-8721.00099. Retrieved April 14, 2015.

Mize, Hon., G.E., retired, Hannafor-Agor, P. & Waters, N.L., (2007). The state of the states survey of jury improvement efforts: a compendium report. National Center for State Courts, Available at http://www.ncsc-jurystudies.org/~/media/Microsites/Files/CJS/SOS/SOSCompendiumFinal.ashx. Retrieved March 26, 2015.

Small, R., Platania, J., & Cutler, B., (2013). Assessing the readability of capital pattern jury instructions, The Jury Expert, Art and Science of Litigation Advocacy, Volume 25, Issue 1, A Publication of the American Society of Trial Consultants, Available at http://www.thejury-expert.com/2013/01/assessing-the-readability-of-capital-pattern-jury-instructions/. Retrieved March 26, 2015.

Tiersma, P.,M.,(2009). Communicating with juries: how to draft more understandable jury instructions Legal Studies Paper No. 2009-44, Loyola Law School, Available at http://ssrn.com/abstract=1507298. Retrieved March 31, 2015.

Tiersma, P,M.,(2014) Asking jurors to do the impossible Tennessee Journal of Law & Policy, Volume 5, Issue 2, Article 5. Available at http://trace.tennessee.edu/tjlp/vol5/iss2/3. Retrieved March 31, 2015.

"Soft" vs. "Hard" Psychological Science in the Courtroom

by Geoffrey D. Munro, Ph.D. and Cynthia A. Munro, Ph.D.

Don't miss the responses from trial consultants Kacy Miller and Robert M. Galatzer-Levy below.

Background

The terms "soft science" and "hard science" are commonly applied to different scientific disciplines, and scientists have investigated and theorized about features that apply when placing scientific disciplines on a soft-hard continuum (e.g., Simonton, 2004, 2006, 2009). In the minds of laypeople, however, the difference may lie in the more simple perceptions of different scientific disciplines. The very words themselves, "soft" and "hard", may hint at different reputations. Soft sciences are fuzzy and less rigid, suggesting lower reliability, validity, and rigor than hard sciences possess.

Psychological science includes research that is usually considered to be on the softer side of the continuum (e.g., behavioral science) as well as research that is usually considered to be on the harder side (e.g., neuroscience). However, the name "psychology" appears to elicit less respect from the general public than many other sciences. Survey data show that psychology was judged to be less important than disciplines like biology, chemistry, economics, medicine, and physics by both a random sample of adults as well as by full-time university faculty (Janda, England, Lovejoy, & Drury, 1998). Janda et al. also coded any spontaneous comments made by their respondents. Twenty-five comments concerned psychology, and, tellingly,

24 of them were negative: "Many of the negative comments had as their theme that at least some of what psychologists have to say cannot be believed and that people should rely instead on their common sense. A few respondents had much stronger views, suggesting that psychology was responsible for creating problems for our society" (Janda et al., 1998, p. 141). Findings like these led Lilienfeld (2012) to publish an article in the *American Psychologist*, the official journal of the American Psychological Association, with the provocative title "Public skepticism of psychology: Why many people perceive the study of human behavior as unscientific". In the article, Lilienfeld concludes that the general public does agree with the soft science nomenclature that is frequently applied to psychology and offers a host of reasons why.

Interestingly, Lilienfeld (2012) suggests that neuroscience might be perceived to be more like a "hard" science than other 'softer" psychological sub-disciplines. Research questions from most sub-disciplines of psychology (e.g., cognitive psychology – why do some people have trouble following directions?) were judged to be easier to answer than research questions from neuroscience (e.g., why is it that when you get tired, your brain doesn't work as well?) (Keil, Lockhart, & Schlegel, 2010). Also, people (including the media; Beck, 2010) appear to prefer neuroscience explanations of psychological phenomena (e.g., Greene & Cahill, 2012; Weisberg, Keil, Goodstein, Rawson, & Gray, 2008). Part of the attractiveness of neuroscience ex-

planations might be attributed to the images of the brain that neuroscience evidence can often provide (McCabe & Castel, 2008). However, others have not found that the images themselves have any effect over and above a verbal description of neuroscientific evidence (in comparison to clinical psychology evidence that did not employ neuroscientific techniques) (Schweitzer, Saks, Murphy, Roskies, Sinnott-Armstrong, & Gaudet, 2011; see also, Farah & Hook, 2013). In addition to brain images, the label (e.g., "psychology" vs. "neuroscience") may impact perceptions of the scientific value of the research. Greenberg and Wursten (1988) showed that expert testimony in an insanity defense case provided by a "PhD" (i.e., psychologist) was less convincing than the identical testimony provided by an "MD" (i.e., psychiatrist). So, there is evidence that neuroscience explanations, the presence of neuroscience images, and labels that are consistent with neuroscience can favorably affect perceptions of scientific evidence.

The Current Research

The first goal of our research (Munro & Munro, 2014) was to focus not on explanations, images, or labels, but on the very techniques favored by those in the neuroscience field versus those used by psychological subdisciplines that are less obviously biologically oriented. All else being equal, do people favor neuroscientific evidence such as brain MRI over behavioral evidence such as cognitive test results?

At the same time, we wanted to determine whether or not people who were motivated to disbelieve the evidence would more easily dismiss behavioral evidence in comparison to neuroscientific evidence. Many studies have established that people discount scientific evidence that threatens a strongly-held belief or attitude (e.g., Lord, Ross, & Lepper, 1979; Munro & Ditto, 1997) and information that threatens a group important to one's identity like political party identification (Cohen, 2003; Hulsizer, Munro, Fagerlin, & Taylor, 2004; Munro et al., 2002). Research has even shown that neuroscience evidence is selectively accepted depending on whether it supports or challenges a person's prior attitude (Shniderman, 2014). However, no studies have directly tested neuroscience evidence against behavioral science evidence. Thus, our second goal was to test whether differences exist between evaluations of neuroscience evidence and behavioral science evidence when one is motivated (because of their identification with a particular group) to believe or disbelieve the evidence.

The sample consisted of 106 participants who had completed a pretest indicating their political party and the strength of identification with that party. They began the experiment by reading about a politician who was either a member of the same or different political party as they (the participants) were. The politician had recently been cited for ethical violations. The ethics committee required the politician to be evaluated by an expert to determine if cognitive problems would prevent him from carrying out his duties as an elected representative. If the expert concluded that the politician did have cognitive

limitations that would prevent him from performing his duties, then the politician would be required to resign, and the Governor, a member of the opposing political party, would appoint a replacement. This outcome would be viewed as unfavorable to the participant if the politician's political party matched the participant's political party, as the politician's replacement would be from the opposing party.

The expert used either neuroscience or behavioral observation techniques to test the politician for possible dementia. The expert was identified as only "Dr.", with no mention of whether he had an M.D. or a Ph.D., and no brain images or test data were shown to participants. For half the participants, the expert's techniques involved reviewing the politician's medical history and conducting verbal or paper-and-pencil cognitive tests (like those often used by clinical neuropsychologists). For the other half of the participants, the expert's techniques involved reviewing the politician's medical history and obtaining an MRI scan of the politician's brain. Participants were then provided with specific findings from the experts' evaluations that formed the basis for the experts' opinions. For all participants, the expert concluded that the politician was suffering from Alzheimer's disease, that the symptoms will continue, and that the symptoms will interfere with the politician's ability to perform his duties.

After reading the expert evaluation, participants answered questions assessing their opinions of the quality of the evidence provided in the expert's evaluation. Two questions assessed "how strong" and "how convincing" the evidence was and were combined into a quality index. Four questions focused on specific aspects of the evidence (reliability, validity, objectivity, and relevance) and were combined into a reasons index. One question asked participants to indicate which of the specific aspects of the evidence, if any, best represented their opinion. Two questions focused on the conclusions and consequences of the evidence asking participants to indicate their opinions about the degree to which the politician a) has beginning stage Alzheimer's disease, and b) should be required to resign from public office. These two items were combined into a conclusion index.

To analyze the results, participants were divided into groups depending on whether they read about an ingroup (same political party) or an outgroup (different political party) politician being tested for cognitive problems, whether they were strongly or weakly identified with their political party, and whether they received the scenario containing neuroscience evidence or behavioral evidence. The pattern of findings was consistent across the quality, reasons, and conclusion indices.

Neuroscience evidence was seen as better

First, a main effect of type of evidence was found. Compared to behavioral science evidence, neuroscience evidence was judged to be of higher quality, it was judged to be more reliable, valid, objective, and relevant, and participants reading it endorsed greater agreement with the expert that the politician had Alzheimer's disease and should be required to resign. In response to the question regarding which reason best fit their opinion about the evidence, 69.8% of participants who read neuroscience evidence selected the option that the evidence was strong and convincing, whereas only 39.6% of participants who read behavioral evidence did so. Instead, participants indicated that the behavioral science evidence was subjective (24.5%), unreliable (15.1%), and irrelevant (11.3%).

Behavioral Science Evidence Was Easier to Dismiss Than Neuroscience Evidence

In addition to the general preference for neuroscience evidence, we also found that behavioral science evidence was more easily dismissed than neuroscience evidence when participants were motivated to disbelieve it. That is, among participants who identified weakly with their own political party, neuroscience evidence was rated as being of higher quality than evidence based on cognitive testing, regardless of the political party of the politician who was found to have Alzheimer's disease based on either type of evidence. In contrast, participants who strongly identified with their political parties had greater motivation to view the evidence more strongly, negative or positive, depending on the political party of the politician. Indeed, when reading about a politician from their own party who would be forced to resign because of the expert's opinion, this group of participants rated neuroscience evidence to be of much higher quality than evidence based on cognitive testing. When the politician was from the opposing party, however, neuroscience evidence was rated to be of only slightly higher quality than evidence based on cognitive testing.

Implications for the Courtroom

By using specific examples of psychological evidence in a context that is similar to real-world judgments, our study has im-

plications in forensic settings wherein laypersons' evaluations of psychological methods and their use as a basis for expert opinions are of interest. Our first finding, that when participants selected a negative reason for their overall opinion of the behavioral evidence, they tended to select subjectivity, unreliability, and irrelevance of the evidence, reflects a lack of appreciation by laypersons of the methods used in clinical psychology and its subdiscipline neuropsychology. For this reason, attorneys might wish to request that their experts educate the jury about the psychological methods they use in order to address their potential biases against such methods, and hence, the very basis of the experts' opinions. For example, the expert could inform the jury about the absence of formalized criteria for interpreting brain imaging data and/or the inability of brain imaging techniques to quantify behavior in order to allow for a more balanced appraisal of such evidence. Similarly, education about the lengthy manuals and procedures for both administration and interpretation of psychometric tools could help jurors not dismiss these "softer science" tools.

Our second finding is that people are particularly likely to discount behavioral science evidence, compared to neuroscience evidence, when the specific conclusions are undesirable for them. This finding suggests that jurors whose strongly held values or identification with specific groups motivate them to disagree with an expert's opinion would be especially likely to discount an expert's opinions if they are based on behavioral science (e.g., cognitive test results), rather than on neuroscience (e.g., brain imaging). In cases for which experts rely on traditional paper-and-pencil psychological methods in forming the basis of their opinions, identifying potential jurors with strongly held values beliefs and identities that may bias their ability to objectively consider experts' opinions is of particular relevance during voir dire and jury selection.

References

Cohen, G. L. (2003). Party over policy: The dominating impact of group influence on political beliefs. *Journal of Personality and Social Psychology*, 85, 808-822.

Farah, M. J., & Hook, C. J. (2013). The seductive allure of "seductive allure". Perspectives on Psychological Science, 8, 81-90.

Greenberg, J. & Wursten, A. (1988). The psychologist and psychiatrist as expert witnesses: Perceived credibility and influence. *Professional Psychology: Research and Practice*, 19, 373-378.

Greene, E., & Cahill, B. S. (2012). Effects of neuroimaging evidence on mock juror decision making. *Behavioral Sciences and the Law, 30*, 280-296.

Hulsizer, M. R., Munro, G. D., Fagerlin, A. & Taylor, S. (2004). Molding the past: Biased assimilation of historical information. *Journal of Applied Social Psychology, 34*, 1048-1072.

Janda, L. H., England, K., Lovejoy, D., & Drury, K. (1998). Attitudes toward psychology relative to other disciplines. *Professional Psychology: Research and Practice*, 29,140-143.

Keil, F. C., Lockhart, K. L., & Schlegel, E. (2010). A bump on a bump? Emerging intuitions concerning the relative difficulty of the sciences. *Journal of Experimental Psychology: General*, 139, 1-15.

Lilienfeld, S. O. (2012). Public skepticism of psychology: Why many people perceive the study of human behavior as unscientific. *American Psychologist*, 67(2), 111-129.

Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently

considered evidence. Journal of Personality and Social Psychology, 37, 2098-2109.

McCabe, D. P., & Castel, A. D. (2008). Seeing is believing: The effect of brain images on judgments of scientific reasoning. *Cognition*, 107, 343-352.

Munro, G. D., & Ditto, P. H. (1997). Biased assimilation, attitude polarization, and affect in reactions to stereotype-relevant scientific information. *Personality and Social Psychology Bulletin*, 23, 636-653.

Munro, G. D., Ditto, P. H., Lockhart, L. K., Fagerlin, A., Gready, M. & Peterson, E. (2002). Biased assimilation of sociopolitical arguments: Evaluating the 1996 U. S. Presidential Debate. *Basic and Applied Social Psychology, 24*, 15-26.

Munro, G. D., & Munro, C. A. (2014). "Soft" versus "hard" psychological science: Biased evaluations of scientific evidence that threatens or supports a strongly-held political identity. *Basic and Applied Social Psychology, 36*, 533-543.

Schweitzer, N. J., Saks, M. J., Murphy, E. R., Roskies, A. L., Sinnott-Armstrong, W., & Gaudet, L. M. (2011). Neuroimages as evidence in a *mens rea* defense: No impact. *Psychology, Public Policy, and Law, 17*, 357-393.

Shniderman, A. B. (2014). The selective allure of neuroscience and its implications for the courtroom. The Jury Expert, 26, 1-3.

Simonton, D. K. (2004). Psychology's status as a scientific discipline: It's empirical placement within an implicit hierarchy of the sciences. *Review of General Psychology, 8,* 59-67.

Simonton, D. K. (2006). Scientific status of disciplines, individuals, and ideas: Empirical analyses of the potential impact of theory. *Review of General Psychology, 10*, 98-112.

Simonton, D. K. (2009). Varieties of (scientific) creativity: A hierarchical model of domain-specific disposition, development, and achievement. *Perspectives on Psychological Science*, 4, 441-452.

Weisberg, D., Keil, F., Goodstein, J., Rawson, S., & Gray, J. (2008). The seductive allure of neuroscience explanations. *Journal of Cognitive Neuroscience*, 20, 470-477.

Kacy Miller responds:

Kacy Miller is president and founder of CourtroomLogic Consulting, a full-service trial consulting firm in Dallas, Texas. She specializes in theme identification, strategy development, pretrial research, witness preparation, jury selection and a host of other services designed to maximize the client's position in settlement conferences or the courtroom.

The battle between "soft" and "hard" psychological science is nothing new. While general bias regarding one or the other has existed for ages, the advances in brain science, imaging, and technology have given neuroscience a boost in credibility.

When working a case where one party has evidence involving behavioral science and the other side has evidence of brain science, the research shared by the authors clearly suggests that brain science evidence would have more persuasive power with potential jurors. If you're on the "soft" science side, what can you do to even the playing field? If you're on the "hard" science side, what can be done to maximize the commonly held perceptions that neuroscience is "better" science?

Here are a few suggestions.

1. Pretrial Jury Research

I'm a huge advocate of pretrial jury research. The benefit of conducting welldesigned, professionally facilitated research justifies any additional costs, and I have yet to conduct research that failed to provide strategy-changing data. The research cited above was based on participant perceptions of a political scenario, and I'm sure we can all appreciate how strong an individual's political beliefs can be. But, what if your case involves something less emotional or personal to the members of the jury: a medical malpractice claim involving future medical care; a personal injury claim involving psychological impairment or distress; or even a criminal case involving mitigation? A focus group or mock trial could reveal whether jurors are strongly influenced by one science or the other, or whether jurors who are less "emotionally connected" to the fact pattern perceive both sciences as equally valid.

2. Voir Dire

Knowing that most people have strong feelings about psychology and brain science, it's absolutely critical to ask tar-

geted questions during the jury selection process. The trick is creating an environment that encourages juror participation... and juror honesty. "Bias and prejudice" have such a negative connotation in today's world, that I find it best to ease jurors into the discussion with more benign queries. Using juror number cards and incorporating scaled or forced choice questions is a fabulous way to assess the entire panel, and to identify the specific jurors you need to know more about. And the bonus? It's a relatively quick process so it won't suck up your precious limited time.

For example:

- a) On a scale of 1-10, with 10 being high, how would you rate the trustworthiness of written tests designed to evaluate a person's psychological wellbeing? [Have jurors raise their cards for various numbers.]
- b) Which of the following two phrases do you think would provide the most accurate information: soft science or hard science? [Ask jurors to choose a category and raise their cards when you state that particular category.]
- c) Knowing only that one witness is a

psychologist (Ph.D.) and the other a medical doctor (M.D.), do have any feelings right off the bat that one is more credible than the other? Which one and why? [Ask this question to the group and hope for volunteers. If the panel is quiet, choose a couple group members and ask them specifically. Then loop around to other jurors for additional feedback.]

3. Graphics

Visual aids and graphics not only complement your witness's testimony, but they also aid juror learning, attention, and retention. If jurors are being asked to evaluate evidence involving behavioral science and neuroscience, they must comprehend the how's and why's of the testimony. For example, if you're attempting to boost the credibility and believability of psychological testing (MMPI, Beck, CPI, Rorschach, etc.), consider providing jurors with a series of charts, checklists, and/or graphics that illustrate the laundry list of information considered when rendering the test results. If you're attempting to boost a neuroscience argument, show those pretty brain scans big as life with a projector/ screen. Or, if you'd like to chip away at the panel's perceived trust in either behavioral science or neuroscience, graphics designed to clearly point out assumptions or "overlooked" criteria can be very influential.

4. Experts

Finally, consider hiring an expert... but choose carefully. The best experts are teachers, not lecturers; friendly and neighborly, not aloof or condescending; and the very best experts are often those boots-on-the-ground-hands-on expertise, rather than those with only a list of academic accolades. Experts typically have the attention of the jury panel before they ever open their mouth, so capture the power of your expert witness testimony by encouraging them to get off the stand and "teach" the panel with a laser pointer and a large board. And remind the witness that expertise and know-how can be exuded by incorporating everyday language and examples into testimony.

Robert M. Galatzer-Levy responds:

Robert M. Galatzer-Levy, M.D. is Clinical Professor of Psychiatry and Behavioral Neurosciences at the University of Chicago. You can contact him by email here.

Comments on Munro and Munro, "Soft" vs "Hard" Psychological Science in the Courtroom

Five years ago my status suddenly changed. I had been a member of a department of "psychiatry". Now I belonged to a department of "psychiatry and behavioral neurosciences". Although the make up and activities of the department remained unchanged, its status in the university brightened.

The prestige of "neuroscience" compared to that of psychology and psychiatry is visible everywhere from the internet, to bookstores, to academia, to the courts. Munro and Munro appear to confirm this common observation and provide suggestions for its management in the courtroom.

It would, of course, be interesting to see the effects of training and sophistication of the subjects on these results. To what extent they apply to experienced judges sophisticated about scientific evidence as opposed to juries whose knowledge of these matters is gleaned from television remains unclear. But the tendency to see "hard" neuroscience as more credible than "soft" psychological science seems to be present in almost all courtrooms. As the authors suggest, the attorney who wants to use psychological evidence of almost any kind will need to educate the jury or judge about its merits, especially if that evidence runs contrary to their bi-

The comparison of "hard" and "soft" science as it relates to human behavior seems to me a somewhat limited focus because it so frequently happens that when triers of fact believe themselves to know truths about human conduct that conviction outweighs evidence of any kind. Two examples:

Even in the presence of exonerating

DNA evidence and clear explanations of how the defendant came to make a false confession, juries sometimes continue to believe that no innocent person would confess and thus return guilty verdicts.

In *Miller vs. Alabama*, the SCOTUS majority opinion held that life without parole could not be imposed on adolescents because of their immature brain-psychological function. The court opined, in essence, that questions about the scientific findings, both psychological and neuroscientific were resolved by 'what every parent knows' from the experience of raising adolescents.

In other words, everyday knowledge outweighs science, hard or soft, when it comes to psychological function.

While scientific prestige may influence some triers of fact, it is a hard road for scientific prestige to overcome "common sense" in the arena of human behavior, even when the former is admissible and the latter, in theory, is not. One route to addressing this problem is to address the meaning of the scientific data in terms of everyday experience. Thus, for example, when the difference between rational and emotional information processing is being explained, reference to MRIs of the amygdala and the prefrontal cortex accompanied by good anatomical drawings and/or reference to Nobel Prize winning research on "Thinking Fast and Thinking Slow" only comes alive to most judges and juries through examples such as the impulse to smash that malfunctioning computer or the involuntary jumping back from a car that seems headed toward you.

It is only when testimony about behavior makes sense that it is believed.

Conversely behavioral science testimony is best impeached by showing it does not 'make sense".

FAVORITE THING



Neuroscience has become an area of increasing interest to many of us. Owen Jones, one of the Editors of *Law and Neuroscience*, was the keynote speaker at the American Society of Trial Consultants Annual Conference in Nashville this year. This is one of the resources he pointed out during his presentation and it is a very thorough information source. It's also our favorite thing for May, 2015.

http://bioethics.gov (the Bioethics Commission) is an advisory panel of the nation's leaders in medicine, science, ethics, religion, law, and engineering. The Bioethics Commission advises the President on bioethical issues arising from advances in biomedicine and related areas of science and technology. The Bioethics Commission seeks to identify and promote policies and practices that ensure scientific research, health care delivery, and technological innovation are conducted in a socially and ethically responsible manner.

We'll give credit for this find to Owen Jones which also gives us a chance to highlight his own pretty fabulous website on all things neurolaw.

Using the Other Side's Strikes: Regulating the Information Flow to Steer Your Opponent in Voir Dire

by Roy Futterman, Ph. D.

T HAS LONG BEEN THE DAYDREAM of jury selectors: What if I could use not only my own peremptory strikes, but the strikes of the opposing side as well? This goal is, in fact, attainable by manipulating the information flow in voir dire to guide your opposing counsel's decision-making. This can be done in three steps:

- 1. Calculate the opposing side's optimal jury selection strategy to learn what information they need to make their decisions.
- 2. Read into the opposing attorney's idiosyncratic behavior during voir dire to get more information on their decision-making process.
- 3. Adjust your voir dire questioning based on this information to bait opposing counsel to strike your own unfavorable jurors.

Calculating The Opposing Side's Voir Dire Strategy

The first step in this process of steering your opponent is to understand the information that your opposing counsel will use to make peremptory strike decisions by calculating their optimal voir dire strategy.

Strategic voir dire is primarily focused on considering who opposing counsel's most favorable jurors would be, and how the opposing side will likely behave during voir dire (Futterman, R. 2011). To calculate opposing counsel's strategy, in advance of

trial, put yourself temporarily in their shoes to consider what types of jurors would be most responsive to that side's narrative, themes, and parties (for more explanation of this technique listen to this American Bar Association sponsored podcast). With this advance preparation, you can then plan how to have the types of jurors who are most favorable to the opposing side expose themselves during voir dire so that you can strike them. Usually, you would end there, but you can also use this method to go further.

This method also gives you an understanding of the opposing side's optimal jury selection strategy, and most importantly, the information that the opposing attorney will require in order to make decisions in voir dire. This is only the first step in steering your opponent, however, because your counterparty will rarely follow through on the optimal strategy.

The Opposing Side Veers

Attorneys for the opposing side veer from the optimal strategy for a variety of reasons. Often, for instance, the attorney has no real jury selection strategy at all. In state court voir dire, for example, many attorneys think very little about exposing and striking jurors for strategic reasons, and primarily use the more free-flowing question and answer period to merely ingratiate themselves with the jurors. Their voir dire strategy is only to arrange to be liked and trusted throughout the trial. The at-

torney will then strike any potential jurors who give social cues indicating that they are not responsive to the attorney during the ingratiation period. These social cues, however, are readily viewable to both side's attorneys, providing the same important information to both sides.

Another reason that attorneys veer from an optimal strategy is that attorneys often have idiosyncratic views of what types of jurors have responded to them personally in the past or stereotypic views about how certain demographic types respond to their cases. Attorneys will often explain this by saying something like "I had a plumber on a case once, and I'll never do that again". This is only natural. Generally, as attorneys gain more experience and wisdom from litigating, they also accrue more biases about juror types that tend to override the optimal strategy for the specific case at hand.

Observing The Opposing Side's Idiosyncrasies

Because of this, the second step in this process of steering your opponent is to watch the opposing attorney's behavior during voir dire to see how the attorney goes off course from the optimal strategy. Because you will have calculated the other side's optimal strategy at this point, you will readily see when and where the opposing attorney is veering from it.

From the start of the voir dire process, jurors will request to leave the pool due to scheduling issues and other reasons. You can most clearly see what types of jurors the opposing attorney sees as most favorable and unfavorable by watching the attorney's different reactions to each juror's request. The opposing attorney will clearly show which jurors they are steering in or out of the pool at this stage. In state court voir dire, attorneys will usually blatantly show that they are driving certain jurors on or off by their very pointed questioning that steers jurors' answers in various directions ("This doesn't seem like the kind of case you would be able to sit for, right?" or "This schedule would not be much of a hardship for you, right?").

By the end of this early stage of the voir dire, you will have a clear view of what types of jurors the opposing attorney is looking for as well as what information the attorney needs in order to make decisions, based on both the optimal jury selection strategy and the attorney's behaviors that show variations from that optimal strategy. With this knowledge in hand, you can use this information to alter the opposing side's use of its own peremptory strikes.

Using The Opposing Side's Strikes

The final step of this process of steering your opponent is to apply what you have learned to regulate the flow of information from each juror to set a trap for the opposing attorney. With your knowledge of what the opposing attorney considers favorable and unfavorable, you can take advantage of this information to adjust your own voir dire questioning to set out bait for the opposing attorney.

Every juror has both favorable and unfavorable aspects. This is the raw data that you have to work with as you turn the spigots to control the information flow. Your questioning can emphasize topics of your choosing. The trap is set by encouraging your unfavorable jurors to talk at length about topics that are unfavorable to the other side. This is done to encourage the opposing attorney to strike your unfavorable jurors.

As an example of this technique, in a recent dispute between two financial entities that took place in state court, we considered people in the financial industry to be unfavorable, but knew that the opposing side was concerned about financial industry people who were in compliance and regulatory areas. Because of this, our attorney questioned a finance person (unfavorable to us) at great length about his views on financial ethics and auditing (unfavorable to the opposing side). The opposing attorney was understandably concerned after the juror spoke at length on these issues, took the bait and struck our unfavorable juror. When opposing counsel took the bait, in effect, we had four peremptory strikes, and the opposing side had two.

But Does This Technique Work?

In voir dire, regulating the flow of information is the key. If you can guide the flow of juror information, you can affect your opponent's behavior.

In any strategy game, however, it is often more difficult to play against a less skillful player. It is always possible that the opposing side will fail to take the bait. If that happens, you have not lost anything by exposing more juror information, and you can always use one of your own strikes on the juror after all, so there is no harm in trying.

Meanwhile, the upside potential is high. It is always nice to have a few extra strikes.

Roy Futterman, Ph.D. is a Clinical Psychologist and Director at DOAR. He can be reached at rfutterman@doar.com.

References

Futterman, R. (2014). Sound Advice (an American Bar Association sponsored podcast): Voir Dire Theory and Technique. http://www.americanbar.org/content/dam/aba/multimedia/migrated/litigation/soundadvice/mp3/041614_futterman_voir_dire_trial_practice.authcheckdam.mp3

Futterman, R. (2011). Playing the Other Side's Hand: Strategic Voir Dire Technique. *The Jury Expert*, 23(2). http://www.thejury-expert.com/2011/03/playing-the-other-side's-hand-strategic-voir-dire-technique/

Loyalty, Longevity and Leadership: A Multigenerational Workforce Update

by Douglas L. Keene, Ph. D. and Rita R. Handrich, Ph. D.

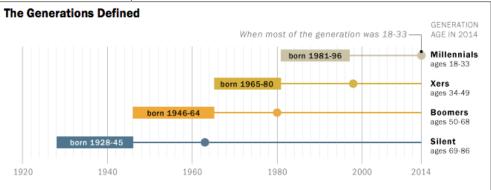
erations in the workforce create unique challenges for managers and organizations. Recently, we were asked to do some work on sorting out if (and how) the generations respond differently to fact patterns in litigation, And, as part of preparing for that research, we took a look at research published since we last wrote a literature review on generations at work. As we prepared for the mock trial research with mock jurors of varying generations, our cli-

It's hard to believe GenXers are really that old, but do the math—time has continued its inexorable march. Do that math a few more times and you will see the oldest Millennials are in their early thirties and the oldest Boomers are turning 70! It is easy to lose track of the passage of time and many of us tend to retain our outdated impressions of younger generations frozen in time. But they are growing

ent said, "50 year old GenXers?".

older (just like we are) and changing as they mature. It's imperative that we all keep our internal stereotypes up-to-date with reality in order to not be left behind with an outdated vision of who will come to interviews or even serve on our juries.

This report updates our previous writing, with a special focus on how to more effectively integrate the values, skills, and preferences of a multigenerational office. Let's start with a reminder of birth years (and 2015 ages) for the generations currently in the workforce. There is some disagreement in the literature on beginning and ending birth years for generational assignment but we will use the dates used by the Pew Foundation in their work on generations.



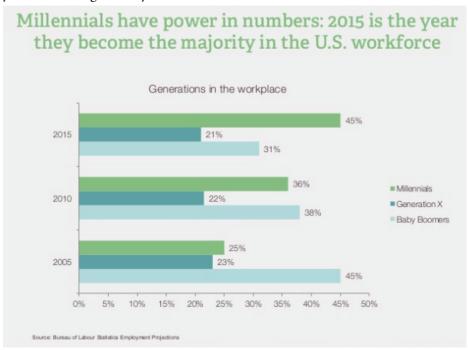
- Millennials were born from 1981 until 1996 and in 2015 are 19 to 34 years of age
- Generation Xers were born from 1965 until 1980 and in 2015 are 35 to 50 years of age
- Baby Boomers were born from 1945 until 1964 and in

2015 are 51 to 70 years of age

One of the consistent challenges in getting accurate information about managing multiple generations in the workplace is identifying the misinformation propagated by the mass media and by careless writers and bloggers who write anecdotally (and typically negatively) about the narcissism and entitlement of young people. It remains common for managers to characterize workplace conflicts as "about generations" and to describe negative behavior as being due to one's age.

Millennials are maligned, much as were GenXers and Boomers before them when it comes to their character, appearance, habits, and expectations in the workplace. It is tempting to think we know 'why they are the way they are' and, for older generations at least, "it's because Millennials are self-centered and spoiled". This overstatement speaks of frustration, but it is untrue. Despite countless articles criticizing this newest, youngest generation of adults, there is no support for the naysayers. To put it accurately and concisely, "there is no evidence that 35-year-old managers today are any different from 35-year-old managers a generation ago".

And here is something shocking^[1]. By the end of 2015, Millennials will be the majority of the US workforce (45% Millennial in comparison to 21% GenXers and 31% Boomers)! If you aren't attuned to the characteristics of your largest employee segment, you aren't taking care of your business.



Despite the reality that hiring managers still see Millennials as much more narcissistic and money-driven than GenX employees (see Slide 22 on the page this link takes you to), they also see Millennials as more adaptable than Gen X, more open to change, more creative, and more entrepreneurial. Attitudes toward Millennials as employees are slowly (but surely) changing for the better. What these hiring managers seem to be recognizing is that Millennials are good workers and creative contributors, but they aren't inclined to accept all of the organizational routines and expectations without challenge. The things that make them good workers can also create tension.

Motivation at Work: Is It Due to Age (and Generation) or to Managerial Level?

Recent research^[2] shows us that it isn't generation (i.e., how old you are) that predicts workplace motivation as much as managerial level within the organization. Most of the research tells us that the higher you are in a managerial position, regardless of age, the more intrinsically motivated you are at work. You are more invested in the organizational success. Yet, it is often the case that managers make stereotypical assumptions based entirely on age, about why members of varying generations behave the way they do.^[3] This is especially true for managers who've read in the popular press and in some academic journals that generations should be treated differently in order to effectively manage. But things can (and need to) change in the law firm recognizing the importance of adapting to current-day demands.

It is important for managers to know about generational differences as a starting point. But it is also important to stress similarities, to develop managerial listening and questioning skills, and develop understanding of the actual individual differences in their own workplace and with their own colleagues—and the "real" differences may not be as much about age and generation as about phase of life and how much is being juggled between home and work responsibilities.

When managers avoid judgment of others (based on assumptions about generational membership) and instead ask questions and listen intently to the answers, the potential conflicts between generations reduce dramatically. These "sensible managers" are putting the focus on building connections and understanding, rather than hardening the differences.

Imagine the priorities of a freshly minted, first year lawyer. Are they focused on the success and prosperity of the firm, or on keeping their job? Are they thinking of moving up the ladder, or trying to figure out how to satisfy hourly billings and organizational

expectations? These are people who, for the most part, have never faced these kinds of work obligations and responsibilities before. Their wish to survive the ordeal is helpful for the firm, but it is equally self-serving for the new lawyer. As they negotiate this alien workspace, they are obliged to ask themselves whether they fit in, whether the firm is willing to work with them to make it more manageable, and whether the culture is one that they can get behind and support.

Now imagine a junior partner, seven or ten years later. Critical dues have been paid. They are stockholders in the enterprise. And they tend to chafe when new associates are not inclined to go along with the system that they just successfully navigated. The junior partner knows the complaints—she just got through having the same ones— but she paid her dues, and there is a tendency to view the associates who she now supervises as being too soft, or less committed. Further, these junior partners are often caught between the resistance of the young associates to blindly accept the way things have been done, and the pressure from senior partners to meet deadlines and to train the new hires. The tension between Millennials and GenX supervisors is familiar.

Sensible management isn't about coddling young lawyers nor is it about viewing young attorneys with contempt. It's about making room for new energy, skills, vision and practices as we move forward. It is about learning to communicate, to ask questions, and to begin to understand our differences so we can work together more effectively. Even the *ABA Journal*⁽⁴⁾ is now educating lawyers on how to adapt and thus retain young Millennial attorneys by focusing on communication and understanding each other.

In the following pages, we will summarize data-based best practices advice for the managing the multigenerational law firm. We are grateful to several very recent and large sample surveys focused specifically on generations in the workplace for this new information. We will examine what the various generations say they want from the workplace, strategies for effective multigenerational management, some real differences between the generations, and the changing face of leadership in the workplace.

What Generations Say They Want and Value in the Workplace

Each generation has preferences and styles that can vary significantly. The following descriptions are broad but are all based in fact and data (rather than anecdote and frustration). Since Millennials are the newest and youngest generation, there is much energy directed at describing them and the large samples in recent studies give us a clearer and global picture of how the workplace of the future will evolve.

Millennials: According to new data^[5] from a global study with over 16,000 respondents, Millennials value personal development and work-life balance over money and status. They are ambitious but would rather have no job than stay in a job they hate. This is a global assessment of this age group, though, and it likely applies less firmly to those who have graduate degrees than those who aren't career-focused. On the other hand, 41% of Millennials want to lead in the workplace but they also want work that helps them to grow and learn new things (say 45% of them). Millennials want regular feedback from their supervisors at work, but "regular feedback" for 31% of the North American Millennials is feedback on a weekly basis — and some studies say an even higher proportion of the Millennials want weekly feedback.

Much has been made of the Millennial and their rose-colored glasses. When considering a new workplace culture, 64% of Millennials want a friendly and genial atmosphere. They also want a diverse workplace (85%), by which they mean cultural diversity. Finally, in a testimony to changing times ahead (or perhaps their oft-touted optimism), only 8% of Millennials fear they will be held back at work due to gender (and the younger the Millennial, the less sex-based discrimination is a fear). Another survey from late 2014 (with more than 1,000 participants)^[6] shows Millennials have skills prior generations do not (according to 68% of the hiring managers); 82% of the managers think Millennials are technically adept, and 60% of the managers say Millennials are quick learners.

Generation X: This group is sometimes referred to as "the little cohort that could". While they are skeptical of institutions, they stay at jobs to build careers. They value independence and the potential for advancement at work. They are comfortable with diversity and tend to focus on similarities rather than differences among those around them. Those who still see GenXers as grungy slackers have not kept up as the GenX generation grew up and are now "active, balanced, and happy". GenXers have actually put their youthful values to work and today, live lives that are what they said they wanted to have when they were young.

Yes. They can still be impatient and blunt. And they will have to move quickly beat Millennials to the punch for those senior management positions when Boomers retire (especially when Millennials have been involved in reverse mentoring programs with Boomer mentees who are retiring). But GenXers, despite financial blows due to the economic recession and, in many cases, purchasing homes at the top of the real estate bubble, are enjoying their lives and careers far more than was predicted in 1990, when they were just entering the workforce. They value a stable family life as many do not believe they had that stability as children.

Baby Boomers: This cohort is used to being in charge and think you should pay your dues and play by the rules. When Boomers came into the labor pool, they brought with them big changes, and they credit themselves as groundbreakers. The rules they tend to favor (just like every other generation) are the ones that suited them when they were the new kids on the job. Boomers want to leave their stamp on institutions and say they have stayed to "make a difference". They have learned to build consensus and thereby effect change. Boomers want to be respected and praised and they want to be seen as valuable authorities in the workplace. Boomers seem to have more affinity for Millennials in the workplace than they do for GenXers and Boomer/Millennial reverse mentoring programs often work well.

Management Strategies for the Multigenerational Workforce

There are some basic recommendations that could be thought of as good communication skills in general but that also work well for all generations currently in the workplace. When orienting and training a new hire, set up clear ground rules for what is expected in both internal and external communications (written and verbal), attire at work, and expected responses to voicemail and email messages. Leave no room for personal interpretation or assumptions about workplace behavioral expectations. Clarity of expectations is crucial, but so is the confirmation that the message was heard as intended, and the directives are both understood and accepted. The table below offers some workplace characteristics seen in the three generations in the workplace [6],[7]

Generations at Work	Millennial	Gen X	Baby Boomer
Characteristics in the Workplace	Want to "be heard" and have an immediate impact. Expect regular face-time with supervisor. "New kids" even though they've been in the workplace more than 10 years. Seen as having currently needed hard skills. Question ("Why?") existing policies and procedures. More optimistic and altruistic than Boomers or GenXers.	Self-reliant & impatient. Independent & skeptical but flexible. Comfort with diversity and technology. Achieving goals is most important & rules are secondary. Management style is blunt & straightforward & focused on getting the work done rather than on bonding. They see Boomers as schmoozers who are "full of doublespeak".	Edgy about finances but still arrogant. Believe in paying dues, playing by the rules, and building careers. Offer indirect feedback to be considerate of other's feelings. Process oriented and believe relationships and business results are intertwined. They have learned to be diplomatic and to value people skills.

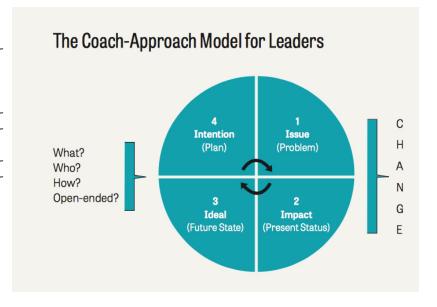
In addition to improving the clarity of expectations in training and orientation, there are other recommendations that result in improved cross-generational communication, networking, and relationship building. One of the most well-known of these strategies is the reverse mentoring program. Reverse mentoring is not just for tapping into the technical expertise of the Millennial employee and improving the technology knowledge base of the Baby Boomer. It is also useful for knowledge transfer to younger employees (so that institutional history and wisdom is not lost when the Boomers retire), building better cross-generational relationships, and driving innovation through the creative cross-pollination of knowledge and the likelihood of increasing identification of potential solutions to obstacles. Companies with reverse mentoring programs also find it easier to integrate newcomers and help them build networks with others in the company.

Another form of mentoring can be to simply be willing to talk to younger colleagues about mistakes made in early career decisions and behaviors. Being brave enough to talk with Millennial employees who've made a serious mistake about your own experiences with making mistakes^[9] is a terrific way for either GenX or Boomer colleagues to help their younger co-workers learn from their mistakes and be able to discuss them with coworkers (thereby decreasing shame and helping new professionals learn from those mistakes and avoid making them again.

There is an unfortunate emphasis in popular (and some professional) writing with a focus on the holes in the education of the Millennial. Instead of focusing so much on what Millennials are *not*, show recognition, respect, and understanding (and maximize their contribution) by focusing on creating an environment that permits their team building, trusting, and tech-savvy natures to thrive^[10]. By so doing, you will understand more about Millennials themselves and you will set an example to be followed about inclusion and accepting others with differing strengths. Here are some reverse mentoring tips and management "touch" strategies^{[8], [12]} useful for each generation at work.

Management strategy	Millennial	Gen X	Baby Boomer
Reverse mentoring programs to offer all employees the ability to be mentored and also to mentor.	Can mentor older Boomers in tech skills and current cultural shifts while learning communication skills and leadership skills from the Boomer.	May wish to opt out of reverse mentoring programs which could hurt their chances for advancement as Boomer mentees retire and recommend their Millennial mentors as replacements.	Can mentor younger GenX and Millennial co-workers in leadership and soft skills and offer a historical perspective while picking up tech skills and increased awareness of younger perspectives.
Management "touch" strategies.	Try a "quick hit" approach instead of meeting individually with Millennials every week. Send a "good job" IM when they complete a project, ask them [in person] how their week is going, or simply say "Thanks for stepping up when we needed you".	GenXers want to be left alone to get the job done and sometimes, they want to do their jobs outside of 9-5 workdays. You might ask a GenXer how often they want supervisory contact and/or feedback and negotiate with them.	Boomers like recognition, talking to their supervisor, and one-to-one feedback.

Another cross generational management tool is the coach-approach model[11] (developed by executive coaches). This process involves four steps: 1) identifying the problem; 2) specify what the impact of the problem is; 3) identify an ideal solution or future state; and 4) develop a plan for a single action step toward that ideal future solution. This approach requires listening and thinking (from both the employee and the coach) and builds in accountability to the coach (who could be the manager) plus helps an employee who feels stuck experience real movement toward their desired future state. This is a model that will require some coaching and training for managers to perform well, but that is nonetheless very doable and will likely be effective across generations given a good relationship between the employee and the "coach".



Some "Real" Generational Differences

A global survey was completed between November 20, 2014 and January 14, 2015 of 9,699 adults who were employed full-time across a variety of companies in eight countries. One of the findings was the importance of workplace flexibility in worker retention^[12]. That flexibility was especially important for employees who were parents.

Most important flexibility issues	Parent	Non-parent
A boss that doesn't allow you work flexibility	72%	65%
Flexibility stigma (perception that people who work flex hours or take leave are penalized with lack of pay/promotion opportunities)	72%	62%
Lack of workplace flexibility, including no option to telecommute (meaning working from another location other than the office or a client site, such as working from home)	70%	65%
Few senior colleagues who are working parents or in dual-career families	60%	43%

There are also some differences in generational self-reports on how they see the workplace, what they expect of themselves in terms of workplace longevity, what it means to be a "loyal" employee, and some demographic differences that underscore "why" flexibility becomes increasingly important for younger workers in order to remain in their positions.

For example, Millennials do not stay in their jobs very long with 58% of them saying they expect to stay in their jobs three years or less. And 25% of Millennials think that working someplace for just 7 months shows you are a "loyal employee". [13] On the other hand, Millennials and GenXers are much more likely to have spouses/partners who are employed full-time than are Boomers. Juggling home and work responsibilities requires flexibility. The following table presents commonly-observed "real" differences between the generations and presents some strategies on how to manage effectively for retention and improved communication in the workplace.

"Real" differences between generations	Millennial	GenX	Boomer
Longevity expected in current job. ⁶	3 years	5 years	7 year
Length of employment to be considered a "loyal employee". 13	7 months (according to 25% of Millennials)		5 years (according to 14% of Boomers)
Dual career issues for younger workers. 13	Percentage of spouses working 35 hours a week or more: 64%	Percentage of spouses working 35 hours a week or more: 68%	Percentage of spouses working 35 hours a week or more: 44%
Use each generation's strengths to achieve business goals. ³	Use for internet-based information collection. Use for multitasking projects. Involve in mentoring and reverse mentoring programs to increase knowledge retention as Boomers retire and to build leadership and communication skills for Millennials. Establish cross-generational teams to resolve work obstacles and challenges.	Use for internet-based information collection but also for face-to-face tasks. Involve in mentoring and reverse mentoring programs to increase knowledge retention and continue to refine traditional leadership skills as Boomers retire. Establish cross-generational teams to resolve work obstacles and challenges.	Use for face-to-face tasks. Involve in mentoring and reverse mentoring programs to increase institutional knowledge retention as Boomers retire and to enhance Boomer technological skills prior to retirement. Establish cross-generational teams to resolve work obstacles and challenges.

The Meaning of "Leadership" Is Changing

Along with the realization that Millennial and GenX employees are actually different than Boomer employees in terms of some priorities and style—it is important to resist seeing these differences as being failings of the younger workers, or indicative of their not possessing a crucial element for successful employment. Rather, our very definitions of leadership are changing, and thus, the relationship between employees and managers. Another recently published report^[14] offers a summary of a global analysis of 28,000 business attitude questionnaires (conducted in 22 languages). This new report shows that perhaps how we define leadership is changing—especially given the distance between the behavioral styles of Boomers and Millennials in the workplace. The authors of that report summarize their findings this way:

"Our thoughts are that leadership has changed, is changing, and will continue to change".

Millennials prefer abstract and conceptual thinking and are much less strategic than the Boomers while still being highly ambitious. Members of Generation X are in the middle of these two generations (both literally and figuratively) according to Hudson. GenXers are ambitious and socially progressive. They are stronger than Millennials on traditional leadership traits and strategic thinking and can be more socially confident than the Boomers. Boomers will need to adjust expectations as other generations take the reins, according to Hudson, while GenXers need to become natural diplomats to continue to straddle the generations, and both will need to learn to accurately understand the Millennials as they continue to mature and develop.

Leadership style	Millennial	GenX	Boomer
Leadership style expected from different generations of leaders based on new data ¹⁴	They will lead by laying out a vision & welcoming those who want to take part. They want to inspire, not persuade & will work to lead by example.	Veterans of restructuring, outsourcing, & job displacement, GenXers lead by seeking inclusion that breeds innovation. They speak languages of both older & younger generations & are natural diplomats— "educating upwards & innovating downwards".	Traditional leadership skills are unrivaled by younger generations. They have power & influence over others & tend to be decisive & strategic thinkers. Boomers have a unique opportunity to "share, teach, & mentor".
Leadership style to which we expect different generations will respond positively.3	Leadership that is seen as supportive of corporate social responsibility & a team orientation. Offer flexible work hours, clear direction, timely feedback, career development opportunities, open work spaces, structure, technology, & knowledge of company goals and objectives.	Leadership that gives supportive supervision & that allows flexibility, career development opportunities & autonomy. Offer flexible work hours & opportunities for work-life balance.	Leadership that allows individuality & self-expression & recognizes contribution. Supervisors who are from younger generations would do well to provide autonomy & supportive supervision to the Boomer.

Summary

There are differences between the generations, but typically they are not the differences our stereotypes proclaim and that we read about in the mass media and from angry bloggers. Managers that focus on how to get the best from all employees rather than focusing on the differences between generations, will likely see the best results from their efforts. There are multiple strategies to be culled from the recent large-scale studies exploring generational similarities and differences. Despite the regular outcry of older generations against the young^[15], GenX and Millennial employees have come (and are coming) into their own in today's workplace. Instead of agreeing to emulate prior generations styles of leadership, both of these groups are changing how leadership is defined and how leadership willlook tomorrow.

Douglas L. Keene, Ph.D. is a psychologist, founder of Keene Trial Consulting, Past-President of the American Society of Trial Consultants, and teaches Advanced Civil Trial Advocacy at the University of Texas School of Law. He assists law firms with trial strategy (including focus groups and mock trials) on major civil litigation and white-collar criminal defense. He assists with voir dire strategy, jury selection, witness preparation, and related services. His national practice is based in Austin, Texas and you can visit his website here.

Rita R. Handrich, Ph.D. joined Keene Trial Consulting in 2000 and has since worked on cases ranging from medical negligence to commercial litigation and intellectual property disputes. She is a psychologist with extensive experience as a testifying expert witness, management consultation and training in the multi-generational workplace. In addition to providing trial consulting services through KTC, she is Editor of The Jury Expert. Rita is a frequent contributor to "The Jury Room" – the Keene Trial Consulting blog [and ABA Blawg 100 honoree for 2010, 2011, 2012, 2013 and 2014].

References

- [1] Red Brick Report on The 2015 Millennial Majority d . Commissioned by Elance-oDesk and Millennial Branding. Slide deck dated October, 2014: http://www.slideshare.net/oDesk/2015-millennial-majority-workforce
- ^[2] Deal, JJ, Stawiski, S., Graves, L., Gentry, WA, Weber, TJ and Ruderman, M. (2013). Motivation at work: Which matters more, generation or managerial level? Counseling Psychology Journal: Practice and Research, 65(1), 1-16.
- [3] Hillman, DR (2014). Understanding multigenerational work-value conflict resolution. *Journal of Workplace Behavioral Health*, 29(3), 240-257.
- [4] Berson, Susan A. 2015 Managing millennials: bridging this generation gap takes time, talking. ABA Journal, 34, January.
- [5] Press Release (2014) First global research from INSEAD Emerging Market Institute, the Head Foundation and Universum confirms

millennials are misunderstood. http://www.insead.edu/media_relations/press_release/2014_emi-first-global-research.cfm. 16,000 respondents across 42 countries participated in an online survey during June and July, 2014.

- [6] The 2015 Millennial Majority Workforce (2015). Study commissioned by Elance-oDesk and Millennial Branding. https://elance-odesk.com/millennial-majority-workforce. Survey of 1,039 Millennials (21-32 years old) and 200 hiring managers (33+ years old) conducted between September 1 and September 10, 2014.
- [7] Practical Research Report #16: Baby Boomers and Generation X: Bridging the Gap. Employee Select. http://www.employeeselect.com/why-use-our-tests/baby-boomers-and-generation-x-bridging-the-gap/.
- [8] Murphy, WM (2012). Reverse mentoring at work: Fostering cross-generational learning and developing Millennial leaders. *Human Resource Management*, 51(4), 549-574.
- [9] Easton, SD & Oseid, JA (2014). "And bad mistakes? I've made a few": Sharing mistakes to mentor new lawyers. Albany Law Review, 77(2), 499.
- [10] Gavatorta, S. (2012). It's a Millennial thing. *T* + *D*, American Society for Training and Development, March, 58-63.
- [11] Gladis, S. & Gladis, K. (2015) Coaching through questions. *Talent Development*, March.
- [12] EY.com. (2014). Study highlights: dual-career dynamics in the US.
- [13] Is there really a generational divide at work? Surprising research on Millennials and emerging trends in the US workforce. (2015). Ultimate Software and The Center for Generational Kinetics. February. Survey conducted between November 12 and 21, 2014 among 1,005 Americans age 18 and over who are employed or currently looking for work. http://www.ultimatesoftware.com/Contact/hr-white-paper-is-there-really-a-generational-divide-at-work?from=search&searchTerm=generational%20divide&searchPos=1&searchCount=10
- [14] Hudson. 2015. The great generational shift.http://au.hudson.com/latest-thinking/the-generational-shift
- [15] Although often attributed to Socrates, efforts to verify the actual source of this quote have stymied searchers for years. Nonetheless, variations on this quote have been around for more than a century (and perhaps a lot longer). Every generation tends to forget how it behaved as young adults, and instead castigate the young for their behavior. "The children now love luxury. They have bad manners, contempt for authority; they show disrespect for elders and love chatter in place of exercise." The consistent thread across the millennia? The young will be our downfall due to their being spoiled, lazy, undisciplined, and frivolous.

Top 10 Most Widely Read Jury Expert Articles Since 2011

by Editorial Staff from the Jury Expert

We became popular very quickly so in 2011, we moved to a WordPress platform and to a new webpage address. Our Google Analytics history was lost to us with that address relocation and so we thought we'd bring you all the articles that have brought in the most traffic to *TJE*s pages since our adoption of a WordPress platform. Many of these are perennial favorites that have been popular since publication, while others wax and wane with topics in the news. Make sure you haven't missed any of them!

- 1. "Only the Guilty Would Confess to Crimes": Understanding the Mystery of False Confessions. Written by Doug Keene and Rita Handrich of Keene Trial Consulting—this paper offers a review of the literature on false confessions and responses by four professionals. It's been one of our most popular articles since written in late 2012.
- 2. Courtroom Attire: Ensuring Witness Attire Makes the Right Statement. Written by Merrie Jo Pitera of Litigation Insights—this paper offers a brief summary of what to wear [and what not to wear] to court. Consistent traffic to this page shows this

is a constant dilemma.

- 3. Ethical Issues in Racial Profiling. Written by British ethicist Annabelle Lever—this article has been a consistent favorite since it was published back in 2009!
- 4. Guilty but Mentally Ill (GBMI) vs. Not Guilty by Reason of Insanity (NGRI): An Annotated Bibliography. Written by two-then-graduate-students at Wright State University (Jennifer Kutys and Jennifer Esterman), this is a annotated bibliography primer on these two legal concepts.
- 5. Police Deception during Interrogation and Its Surprising Influence on Jurors' Perceptions of Confession Evidence. Written by academics Krista D. Forrest and William Douglas Woody—this article was initially popular and then surged in hits again after the *Central Park Five*documentary was released.
- 6. Avoiding Jury Duty: Psychological and Legal Perspectives. Written by academics David M. Sams, Tess M.S. Neal, and Stanley L. Brodsky—this article covers reasons potential jurors might try to avoid jury duty.

- 7. 16 Simple Rules for Better Jury Selection. Written by defense attorney Mark W. Bennett—this one has been popular with Jury Expert readers since published in 2010. What do Shrek and beer pong have to do with jury selection? Read this and know.
- 8. Generation X members are "active, balanced and happy". Seriously? Written by Doug Keene and Rita Handrich of Keene Trial Consulting, this article updates us on what has happened to Generation X since their grungy slacker youth.
- 9. The Glasses Stereotype Revisited. Written by academics Michael Forster and Gernot Gerger and Helmut Leder—this article looks again at assumptions we make about people who wear glasses.
- 10. Atticus Finch Would Not Approve: Why a Courtroom Full of Reptiles Is a Bad Idea. Written by Stephanie West Allen, Jeffrey M. Schwartz and Diane Wyzga—this article is one of the first we published on the reptile theory.