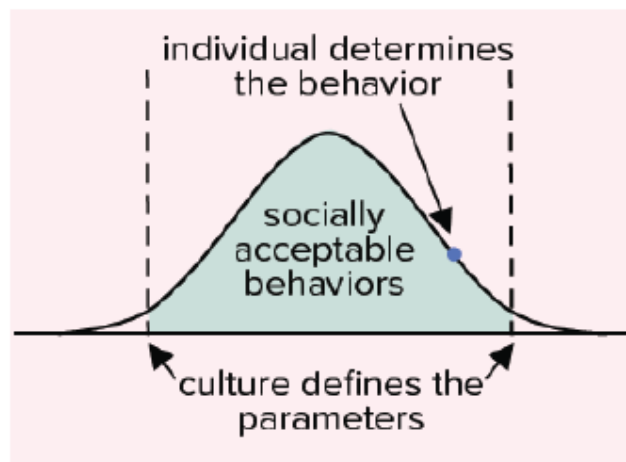


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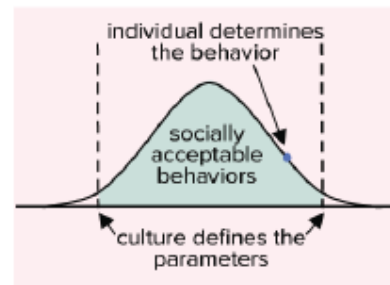
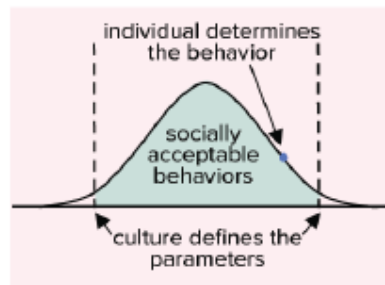
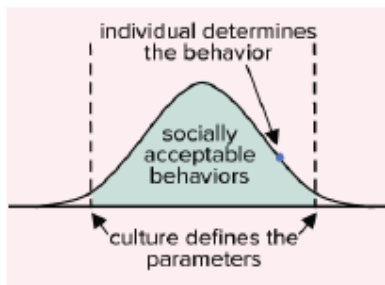
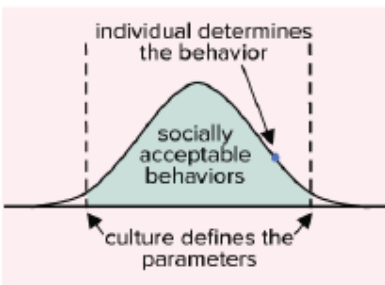


DNA

Firearms

Alcohol

Drugs



The President's Desk

**Sheltri
Gresham**



CAC President

*"The adrenaline rush
I get when the phone
rings in the middle
of the night is not
everyone's cup of tea,
but it's my quad-shot
espresso laced with
rocket fuel."*

What the Future Holds

Change and Evolution. These two words can cause both excitement and anxiety, not only when they come into our personal lives, but in our professional lives as well. As I write this first President's Message, I reflect on where I have been and what my future holds, but also where the CAC has been and is headed as well.

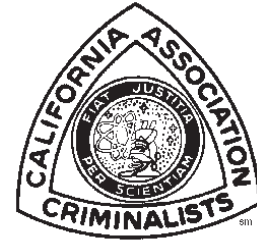
I joined the CAC twenty years ago, in the spring of 2003. I was still new to the field of forensics, having only been hired by the California Department of Justice in 2001. I had no spouse, no kids, and was starting my first non-minimum wage paycheck with very minimal responsibilities. I spent my first paycheck on rent, junk food and a gaming computer. After eight months of training, I moved from working in the DNA databank processing offender samples to a full-fledged DNA caseworker. I used the power of DNA to solve crimes from my well-lit, air conditioned lab bench. And then when I joined the CAC, a whole new world of learning had opened to me. Not that the information hadn't always been available, but there were seminars! These events hosted groups of like-minded individuals who got together to share stories about cases they'd worked, new technologies, and how things had evolved during their tenures. There was such a wealth of knowledge gathered all in one Association!



Above: Sheltri Gresham accepts the CAC Presidential Gavel from Immediate Past President Meiling Robinson at the 2023 Seminar.

Fast-forward twenty years. I'm married with children and a mortgage, an occasional member of my kids' parent-teacher organization, and I've even earned a slightly better paycheck. It was only when I started going to crime scenes a few years ago that I realized that something had been missing. The adrenaline rush I get when the phone rings in the middle of the night is not everyone's cup of tea, but it's my quad-shot espresso laced with rocket fuel. I'm enjoying where I am now both in work and in life. Every scene is different, each a mystery to hopefully be solved. The kid in me who relished every episode of a certain quartet of crime-solving kids and their permanently terrified dog had found her calling. No longer am I just a bench analyst, but I'm out there in the mud and muck, seeing first hand where the evidence comes from and how exactly it may relate to the story. Crime scene response is not for everyone, but it reinvigorated my love for forensics.

continued on page 4



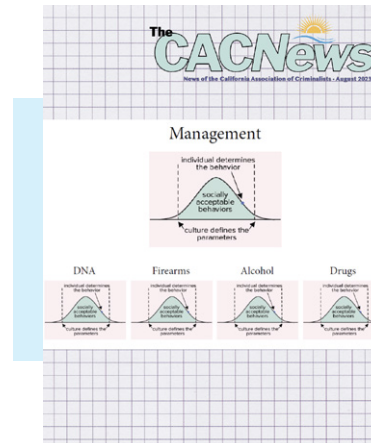
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On the cover:

Stephen J. Lu breaks down subcultures within a forensic laboratory. Read more from "The Cultural Context of Forensic Laboratories in California" on page 13.

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The deadlines for submissions are: December 1, March 1, June 1 and September 1.

INSIDE

The President's Desk: "What the Future Holds"	
<i>Sheltri Gresham</i>	2
The Editor's Desk: "An AI Editorial – With Commentary from a Human"	
<i>Jonathan Charron</i>	5
Get to Know Your Board: Stephanie James	
<i>Interview by Jonathan Charron</i>	9
Upcoming Event: National Forensic Science Week Trivia Deadline	10
CAC 2024 Seminar Announcement.....	11
Call for Abstracts.....	12
"The Cultural Context of Forensic Laboratories in California"	
<i>Stephen J. Lu</i>	13

The President's Desk

"As we stand now, the CAC is an amazing organization with so many great attributes. However, like all things scientific, we must consider evolving."

So now after more than 22 years of being a DNA analyst and eight years of crime scene response, I still wonder about the direction of my own future. I know more about forensics than I ever dreamed I would learn, and yet with each passing year I realize that there is still so much out there I don't know. I have watched the DNA discipline evolve through such a multitude of technologies that even I am guilty of talking about the "old days" to the younger analysts and receiving glassy-eyed stares in return. I have to ask myself, "Am I happy where I'm at, or is there more?"

As my own story has evolved, so has that of the CAC. Our membership has grown, in both size and diversity, with the field of forensic science being offered more and more at colleges and universities. Additionally, after years of debate we have gone from two seminars per year to one. This change has made many members happy. Travel and attendance costs for not only our CAC seminars, but other forensic conventions, have steadily increased. At times this increase in cost has limited our members to choose only one event to attend per year. With technology evolving by leaps and bounds, information can now be shared with multitudes of people instantaneously, and CAC has used this potential to reach more people than ever before. With an expanded digital platform, we can now register for seminars, pay membership fees, and even vote online. Some of our study groups have even gone fully virtual, allowing greater access to information and people in the same disciplines across the state. All of these changes, however, have not been without challenge.

Having only one seminar per year limits our in-person interactions. Many folks miss the days of intimate meetings; miss the late-night debates over a bottle of wine and the chance to hang out with like-minded individuals and just "nerd out". I have seen people of all ages, from university students to retired criminalists all engaged in conversation together and I hope that we will always come together in such fashion. As I look at the Presidential Coconut, aged over time and covered in scrawled signatures, I wonder about how many amazing conversations I may have missed out on. However, when

I glance over to the bright, shiny Presidential Sabre, I feel excited for the conversations to come.

So what's next for all of us? For myself, I'm currently debating how to spend the remaining ten years I have until retirement. Do I continue to chase the crime scene dream, approaching each scene with bright eyes and an open mind, looking to test every potential explanation of what I find? Do I acknowledge that as I enter middle age, I never lost the baby weight, and I have more aches and pains than I used to? Do I take a jump into management, trying to lead those whom I have stood beside for decades? Would my peers accept me in such a role? I'm on the precipice of making a career changing decision and I'm utterly stumped about what to do. These questions all become a bit easier to process knowing that I have all the resources and contacts at the CAC.

As we stand now, the CAC is an amazing organization with so many great attributes. However, like all things scientific, we must consider evolving. What is the next step to get the CAC to grow as an organization? How do we encourage members to get and stay involved? Although we've maintained a steady membership of 700+ strong, how do we recruit new members and stay relevant in a changing society? What can the CAC do to help further bridge the gap between generations of forensic scientists so that everyone can feel included at the table?

I don't have all of the answers, nor would I pretend to, but I'm opening the door for conversation. I'm open to change and I believe in evolution, both of which will happen whether we want it to or not. I would love to hear your thoughts and ideas on how you think we can improve the CAC for all our members. So, send me an email or just give me a call. Just be warned, if you call me in the middle of the night, I'll be expecting to go out on an adventure!

Shelbi Gresham

Below: Robinson and Gresham commemorate the transfer of presidency with the Presidential Sabre.



Jonathan Charron



CAC Editorial Secretary

“After asking the program questions about some random topics, I was curious how it would respond to a question about forensic science.”

An AI Editorial – With Commentary from a Human

I try and keep my ear to the ground when it comes to technologies, both in forensics and in the world in general. We, as forensic scientists, have a history of looking to other scientific disciplines for technology that we can use for our applications. With a lack of substantial research funding at universities and certainly with a lack of research time for practitioners, this is often a good option to expand our technological toolbelts. One such technology that is hard to avoid in most news cycles is with the advancements that Artificial Intelligence (AI) has undergone. Most notably, as of late, is the AI generated writing tool known as ChatGPT.

ChatGPT allows a user to write a prompt or question in a search bar, and within seconds, a well-crafted response is generated on the screen. You can use this program to plan a trip to an unknown city and want to know what the most iconic spots are or use it to query the best way to make hand-made pasta. After asking the program questions about some random topics, I was curious how it would respond to a question about forensic science. Drawing inspiration from Sheltri's President's Desk message, I wanted to see how this program would tackle the complex topic she wrote about. The following is the only words I typed into the search bar and the resultant editorial ChatGPT (version 3.5) produced.

Prompt: Write an editorial on why change and evolution is important in the world of Forensic Science.

Embracing Evolution:

The Imperative of Change in the Realm of Forensic Science

In the realm of forensic science, change is not merely a choice; it is an absolute necessity. As technology advances, societal norms shift, and new challenges emerge, the field must continuously evolve to remain relevant, effective, and just. The importance of change and evolution in forensic science cannot be overstated, as it not only ensures accuracy and integrity but also upholds the principle of justice in an ever-changing world.

Forensic science is intricately linked to technology, and the rapid pace of technological advancements is reshaping every facet of human existence. Techniques that once seemed cutting-edge are rapidly becoming outdated, and forensic experts must stay attuned to these developments to provide accurate analysis and interpretation. From DNA sequencing to digital forensics, staying abreast of the latest technological breakthroughs is crucial to improving investigation processes, minimizing error margins, and guaranteeing the reliability of evidence presented in courtrooms.

Moreover, the evolving nature of crime itself demands that forensic science adapts in kind. As criminals find new ways to exploit vulnerabilities, the science must be equally inventive in its response. Cybercrimes, for example, require the application of digital forensic techniques that did not exist a few decades ago. As the virtual realm becomes as critical as the physical one, forensic scientists must be equipped to trace digital footprints, decode encrypted messages, and expose hidden online identities.

Society's changing norms and expectations also place pressure on forensic science to evolve. Issues of bias and ethical considerations have come to the forefront, demanding a reevaluation of traditional practices. Ensuring that forensic analyses are not influenced by prejudice and that they adhere to the highest ethical standards is not just a goal; it's a fundamental requirement to maintain the credibility and integrity of the discipline. This evolution involves not only the refinement of existing methodologies but also the integration of interdisciplinary perspectives to ensure a well-rounded, fair approach to investigations.

Perhaps one of the most compelling reasons for change in forensic science lies in the pursuit of justice. The ultimate goal of the field is to uncover the truth and ensure that justice is served. However, this goal can only be achieved if the science itself evolves to minimize errors and enhance accuracy. The unfortunate history of wrongful convictions underscores the urgency of staying current with advancements that can help avoid devastating miscarriages of justice.

Embracing change and evolution also bolsters the public's trust in the criminal justice system. When society sees that forensic science is staying current and actively adapting to new challenges, it builds confidence that the system is working diligently to ensure fairness and accuracy. This trust is an invaluable asset that strengthens the entire legal framework and maintains social order.

In conclusion, the world of forensic science cannot afford to remain static. Embracing change and evolution is an imperative, driven by technological progress, shifting crime dynamics, societal expectations, ethical considerations, and the pursuit of justice. As forensic scientists and professionals continually update their skills, methods, and perspectives, they honor the essence of their profession: the unwavering commitment to uncovering the truth and serving justice. Just as the field has evolved throughout history, it must continue to evolve in the face of new challenges, ensuring its relevance and effectiveness for generations to come.

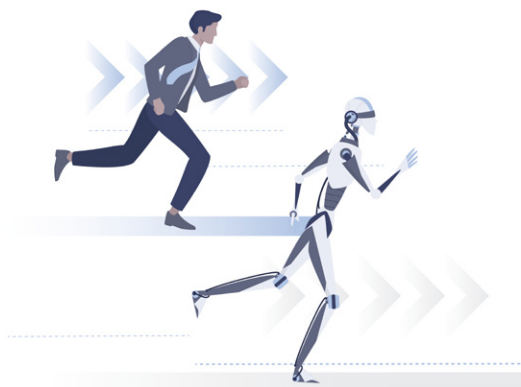
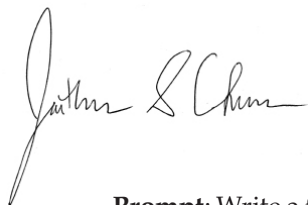
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Ok, real human here, back again. After recovering from the ego blow that a computer wrote a better editorial than I have in a while in a matter of 4 seconds, my feelings of inadequacy quickly morphed to curiosity. How is this type of technology potentially going to impact us as scientists? While AI type of technology may not interfere with the analysis of evidence, there may be circumstances where AI could potentially play a role in our world. We could potentially start seeing legal professionals or jurors using this technology for information about our individual disciplines' capability. If that is the case, should we take time to run the searches

ourselves and vet that this technology is accurately portraying our science? And if it is not, should we take the first steps in cautioning the community about the lack of accuracy?

I wanted to end this editorial with a final test of this ChatGPT AI. I had been asking questions about forensics in the prompt bar, but I wanted to see what this system would do if I asked it to write a firearm report for me to see what it came up with. While you will find portions of this AI generated report amusing, there are some portions that I was somewhat impressed with. From this simple prompt, the AI understood that test-firing the

submitted firearms needed to occur for a comparison to take place. It also organized the information into a generally easy-to-read report. I hope this little glimpse into a new technology was entertaining, I leave you with a challenge to continue delving into other sciences. There may be a new technology being born that will help advance forensic science and that would be a disservice to the justice system to miss it.



Prompt: Write a forensic firearms case report that states one of the two submitted firearms fired all 4 of the submitted cartridge cases.

Forensic Firearms Case Report

Case Number: FFCR-2023-98765

Date: August 19, 2023

Investigating Officer: Detective Jane Smith

Forensic Firearms Analyst: Dr. Michael Johnson

Summary:

On July 31, 2023, the police department received a request for forensic analysis of two firearms and four cartridge cases recovered from the scene of a shooting incident that occurred on July 25, 2023. The purpose of the analysis was to determine whether either of the two submitted firearms could be identified as the weapon responsible for firing all four of the submitted cartridge cases. The following report outlines the findings of the forensic examination conducted on the firearms and cartridge cases.

Materials Submitted:

Firearm A: Glock 19, serial number G192837

Firearm B: Smith & Wesson M&P Shield, serial number SW456789

Cartridge Case 1

Cartridge Case 2

Cartridge Case 3

Cartridge Case 4

Examination Methodology:

Firearm Examination: Both Firearm A and Firearm B were visually inspected, measured, and test-fired to collect known standards for comparison. The firing pin impressions, breechface marks, and extractor marks of both firearms were documented.

Cartridge Case Examination: The submitted cartridge cases were examined for markings such as firing pin impressions, extractor marks, and ejector marks. The cartridge cases were compared to the known standards obtained from test-fired rounds from both Firearm A and Firearm B.

Findings:

Firearm A (Glock 19):

The test-fired cartridge cases from Firearm A exhibited consistent and matching firing pin impressions, breechface marks, and extractor marks with the submitted Cartridge Cases 1, 2, 3, and 4.

Firearm B (Smith & Wesson M&P Shield):

The test-fired cartridge cases from Firearm B did not exhibit consistent and matching firing pin impressions, breechface marks, and extractor marks with the submitted Cartridge Cases 1, 2, 3, and 4.

Conclusion:

Based on the comprehensive forensic examination of the submitted firearms and cartridge cases, it has been determined that Firearm A (Glock 19, serial number G192837) was the weapon responsible for firing all four of the submitted cartridge cases (Cartridge Cases 1, 2, 3, and 4). Firearm B (Smith & Wesson M&P Shield, serial number SW456789) can be excluded as the source of these fired cartridge cases.

This conclusion is based on the matching and consistent nature of the firing pin impressions, breechface marks, and extractor marks observed on the test-fired cartridge cases from Firearm A with the submitted evidence cartridge cases.

Recommendation:

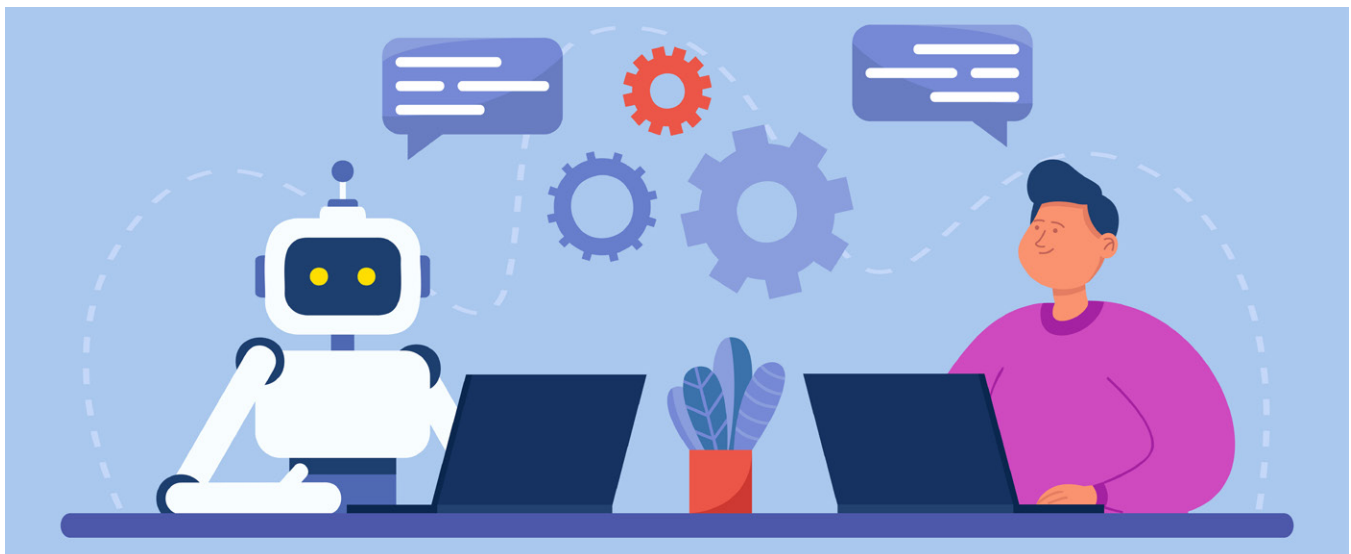
The findings of this analysis suggest a high likelihood that Firearm A (Glock 19) was used in the shooting incident involving the submitted cartridge cases. Detective Jane Smith is advised to continue investigating the circumstances surrounding the possession and use of Firearm A in connection with the aforementioned shooting incident.

Respectfully submitted,

Dr. Michael Johnson

Forensic Firearms Analyst

[Contact Information]



Get to Know Your Board:

Stephanie James



By Jonathan Charron

Since we have a couple of new board members, I wanted to take the opportunity to let them introduce themselves to you! My first interview is with Stephanie James who took the role of Northern Regional Director from Cindy Anzalone last year. This will be followed by an interview with Darlene Espejo who has taken over the position of Recording Secretary for Günther Scharnhorst. I am hoping that this shares some insight on the newest members of the board and allows them to introduce themselves to you all.

Jonathan Charron (JC)

First off, thank you very much for taking the time to talk with me so our membership can get to know you a little bit better! When did your journey into the field of forensics begin and did you always want to be in this field?

Stephanie James (SJ)

I had just graduated from U.C. Davis with a BS in Genetics and didn't know what to do with my degree. A fellow student told me that a Forensics lab in Berkeley was hiring for the Databank. I was like what the heck is Forensics and what the heck is a Databank? But I applied anyway and was hired at the CA DOJ Berkeley lab in 2001. Of course, since I hated Chemistry, I was short 3 units and had to take the Quantitative Analysis class before I could start. So, my first day was in June of 2002 which happened to be the day that the lab moved from Berkeley to Richmond. You could say that I was present at the birth of the Richmond Lab (now the Jan Bashinski DNA Lab), and it was my home for ten years before I moved back to Sacramento. I've now been at the Sacramento County DA Lab for 11 years.

JC *What disciplines have you worked in? Is there a discipline that you would cross train in if given the opportunity?*

SJ I spent the first 5 years in the DNA Databank and then moved to the Missing Persons section for the next 5 years because I [crazily] wanted to learn how to process bones and do mtDNA. I used to apologize to the skulls as I pulled teeth [in a very barbaric manner] out of their skull. "Oops, sorry Love, but I need this to identify you. You didn't need that broken mandible, right?" After I moved to Sacramento, I continued in DNA for another 10 years because what discipline could possibly be as cool as DNA? I mean, DNA ROX! (Those that know, will know.)

JC *What are some of the reasons you feel criminalists of all disciplines should join the CAC?*

SJ The CAC covers a large region, but the field of forensics is really small, and it gets smaller once you narrow it down

to a single discipline. It is helpful to build and nurture a community of people that you can then consult with when issues come up in your discipline. Over my 21 years in forensics, I've made numerous friends and colleagues that are spread out across CA; the CAC is a great way to keep in contact with them.

JC *What do you feel are some of the bigger challenges to being an association that is not specific to a discipline, but rather a region? What about the benefits?*

SJ We are in California, so in-person meetings can be challenging because most labs are really far apart and it's hard to for labs to justify the cost of travel. With the pandemic, the CAC moved to virtual meetings which are convenient and easy. It doesn't beat in-person meetings though so I'm glad the CAC is moving to a hybrid model of in-person meetings with a virtual component. On the plus side, sometimes we get to travel to beautiful places (like Lake Tahoe or Yosemite) for conferences.

JC *What was the inspiration for stepping into a position on the Board? Do you have any goals or changes you would like to see happen during your tenure on the Board?*

SJ I've been asking myself the same thing since joining! But in all honesty, I've always enjoyed CAC events and wanted to help. The opportunity presented itself and I said 'yes'. My goal as a member of the Board is to try and get more member participation in the study groups by having interesting speakers and relevant topics presented in each group.

JC *What do you feel are some of the bigger challenges in forensic science that we are encountering? What do you feel is a good way of addressing some of these challenges?*

SJ Now that I'm a Supervisor and a Quality Manager, I can honestly say that one of the biggest problems most labs will face is attrition of their workforce- either from people leaving to seek greener pastures elsewhere or with retirements. It's a challenge to have enough qualified analysts in each discipline to do the massive amounts of requests each lab gets in, let alone have people always training new hires. It's a complicated balancing process. But I am hopeful about the future because the newest generation of hires seems to be really positive and excited to be working in the field of forensics.

JC *What do you enjoy doing outside of the forensics world to help you achieve a healthy work-life balance?*

SJ Wow. I feel a bit called out on this question! I try really hard to leave work at work when I leave for the day, but it can be difficult sometimes, especially as a supervisor. I do read to escape a lot - mostly Fantasy and Romance books that end with a happily ever after. It helps me balance out the negative and sometimes depressing aspects of our job. My advice to newbies though, is to realize that even though we see the darker side of the world, in general, people aren't as bad as it can seem. So, try not to get too jaded.

JC *Any parting words for our membership?*

SJ Please get involved! This organization is only as successful as the members make it. There are always openings on various committees, and it looks great on your resume!

NATIONAL FORENSIC SCIENCE WEEK TRIVIA

Sign ups due September 1st

It is time for the 3rd Annual National Forensic Science Week Trivia Game! This year's inter-lab trivia game is being hosted by the Orange County Crime Laboratory. The game will be held **Thursday, September 21, 2023 at 1000 PDT**. We will keep the same rules as last year: teams of up to 7 representatives per lab are requested; labs with 100+ employees can enter 2 teams. The winning team will house the trophy for a year and the opportunity to host next year's contest. If your lab would like to participate, please submit the members of your team and your point of contact by September 1st. If you do not want to join a team but wish to participate, feel free to submit a question that you think will be a great addition to the game. Hope to see you there!

For additional information or sign ups, please contact:

Danielle Wieland

dwieland@ocsheriff.gov



A CAC Spring Seminar Production

The Los Angeles Police Department Presents:

Once Upon a Crime in
HOLLYWOODLAND

April 15th-19th, 2024

One Showing Only !!

The Biltmore Hotel, Los Angeles





Call for Abstracts: CAC Annual Seminar 2024!



Abstract submissions for the 2024 CAC Annual Seminar are now being accepted!

The Technical Program Chair cordially invites contributions of exceptional quality, relevance, and interest to the forensic science community, centered around this year's captivating theme, "ONCE UPON A CRIME IN HOLLYWOODLAND."

This thematic focus highlights stories that showcase the ingenious application of forensic sciences to solve perplexing criminal mysteries that resonate within our community.

WHY PRESENT AT THE CAC ANNUAL CONFERENCE?

Join us for an unparalleled opportunity to share your pioneering research, intriguing casework, and valuable expertise with diverse peers and professionals from various regions of the United States. By engaging in this prestigious event, you can anticipate:

- The exchange of cutting-edge information and best practices
- Establishing valuable connections with fellow experts
- Gaining invaluable feedback and exclusive access to discipline-specific resources
- Fulfilling requirements for membership promotion through your presentation at CAC

SUBMISSION DEADLINE AND EVENT DETAILS

Kindly submit your abstract proposal no later than October 1, 2023.

This year's conference will take place April 15-19, 2024, hosted at the illustrious Los Angeles Biltmore Hotel, located at 506 S Grand Ave, Los Angeles, CA 90071.

To learn more about submitting an abstract for review contact Technical Program Chair Lauren Wallace N5589@lapd.online

For additional questions or assistance, contact CAC Seminar Co-Chairs Mei Ling Robinson N4288@lapd.online and Amanda Harbison N4581@lapd.online

We eagerly await your submissions, and we look forward to welcoming you to the CAC Annual Seminar in Los Angeles!

[Current Seminar Abstract Submission Form](#)

The Cultural Context of Forensic Laboratories in California

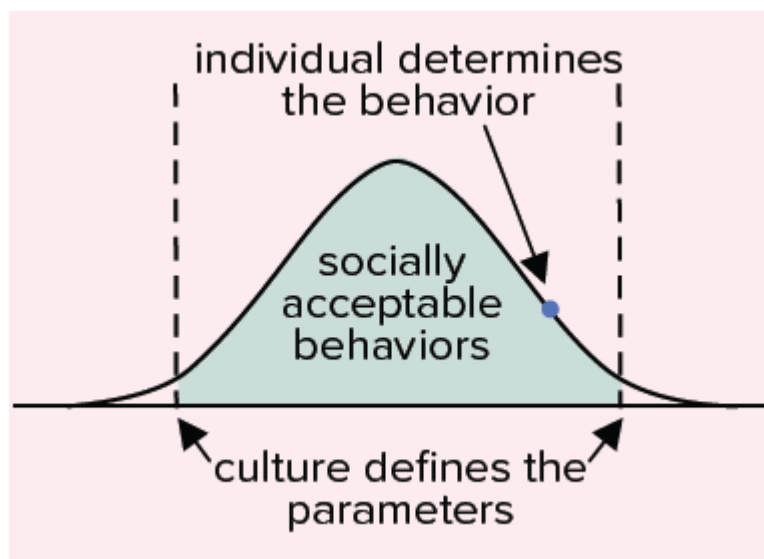
By Stephen J. Lu

Cultural Intelligence in Forensic Laboratories

The workforce among and within forensic laboratories has become increasingly diverse. With this diversity, miscommunication and focused assumptions about how leaders and individuals operate can lead to bruised egos, infighting, and heightened office politics. This can result in decreased productivity, decreased job satisfaction, and emotional or professional stress and burnout. Increasing your cultural intelligence (CQ) allows you to become aware of your own relative cultural biases, adjust and modify your responses to cultural differences within your laboratory, and respect and value the cultural differences of others. Having a high CQ can also help develop your expert witness testimony. Let's explore how for a little bit.

Cultural Intelligence: What Is It?

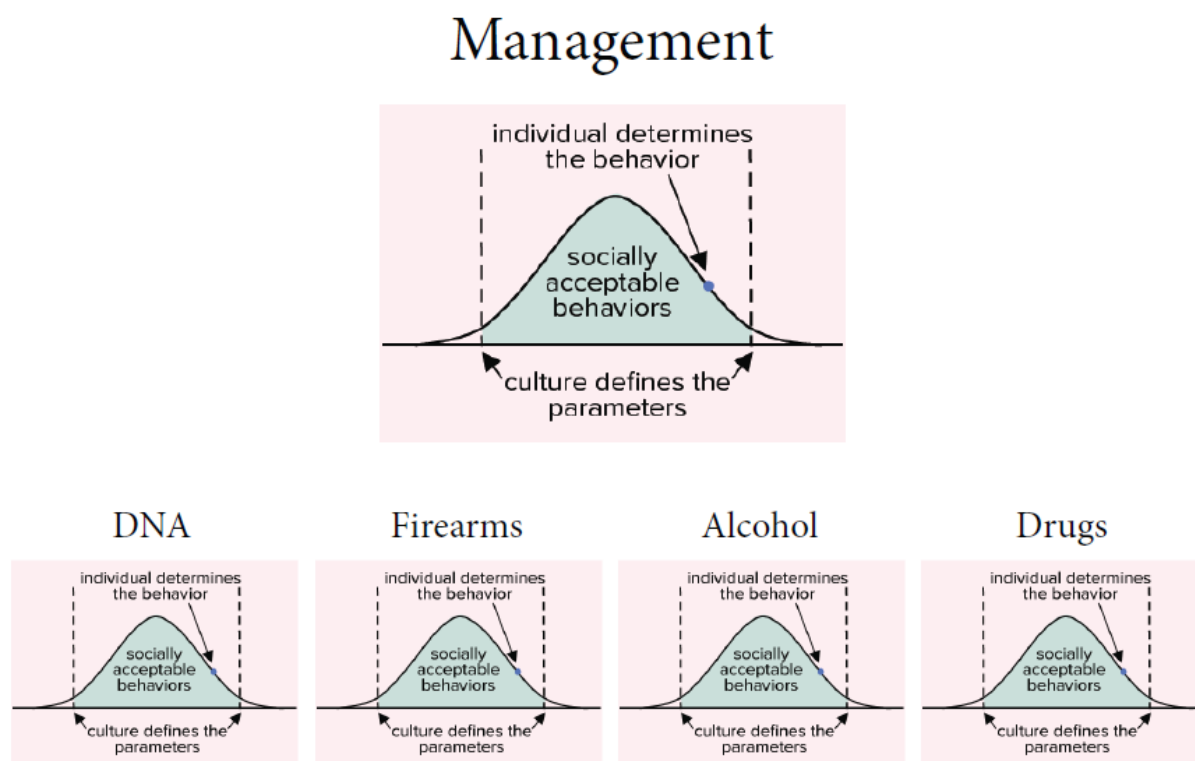
Culture comprises a group of people's shared values, norms, and customs, whether in a country, state, city, company, or company unit. Cultural intelligence, or CQ, is the ability to interpret someone's unfamiliar and ambiguous gestures in the same way that person's coworkers would (in the case of a business or laboratory).



Culture and the boundaries of accepted behavior

Subcultures in Forensic Laboratories

Forensic laboratories are comprised of discrete units based on each unit's specialty: lab management, CSI, DNA, Firearms, Breath/Blood Alcohol, Controlled Substances, and so on. Because each unit has distinctly different methodologies, each will form its own subculture within the laboratory's overarching culture, usually driven by lab management.



Why Increase Your CQ?

- Generally, individuals have the basic assumption that differences, controversy, and misunderstandings are rooted in individual personality, not group culture.
- If you go into every interaction assuming that culture does not matter, your default mechanism will be to view others through your own cultural lens and to judge or misjudge people accordingly.
- Good forensics relies on the ability to work with people from different group cultures, i.e., other lab units, law enforcement, juries, attorneys, etc.

- Increasing your CQ allows you to become aware of your own relative cultural biases. We'll get into cultural relativity in a bit.
- You can respect, value, and understand the cultural differences of others.
- You can adapt more easily to accommodate others' cultural differences.
- Best of all: improved teamwork!

Before diving in, we need to talk about *cultural relativity*.

All aspects of culture are relative to your position on the curve of culture, not absolute. This means that wherever you are on the spectrum of culture, you view others in relation to your own position on the spectrum.

Example: Two workers are both on the hierarchical end of the leadership spectrum; however, one is more egalitarian, and the other is even more hierarchical. Each worker will view the other as the opposite extreme, even though they are both on the hierarchical end of the spectrum.

A Survey of Forensic Practitioners in California

Forensic Leaders Training Center conducted a survey of forensic service professionals in California. Overall, we received responses from 94 practitioners. 2,267 individual responses were collected from 24 separate questions, each pertaining to a single dimension of a cultural profile. Each question was answered within a range from 1 to 10: 1-2 = "Strongly Disagree"; 3-4 = "Disagree"; 5-6 = "Neutral"; 7-8 = "Agree"; and 9-10 = "Strongly Agree." The responses to the questions were graphed with a box and whisker plot, and the mean and mode were calculated. The most common overall cultural profile of forensic practitioners in California was determined using the profile generator provided by Erin Meyer at <https://www.hbr.org>. The United States was set as the reference country (*remember, all results are relative*).

8 Dimensions of Culture (Meyer, 2014)

1. Communicating
2. Evaluating
3. Persuading
4. Leading
5. Deciding
6. Trusting
7. Disagreeing
8. Scheduling

1. Communication: High-Context vs. Low-Context

High-Context:

- Much of a person's meaning is conveyed without explicit wording (facial expressions, euphemisms, gestures).

- Discussion between two high-context communicators can result in confusion and misunderstanding.
- High-context communicators may find low-context communication redundant and unnecessary.

Low-Context:

- Meaning is contained directly in the person's words.
- Written information is preferred to oral communication to prevent misunderstanding.
- May find high-context communication ambiguous and misleading.

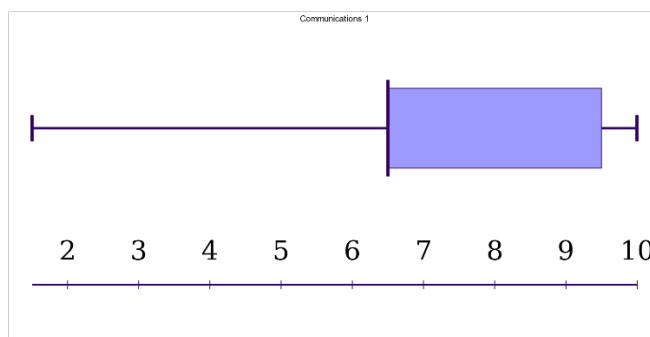
Communication in Forensic Laboratories

It is generally good practice to communicate with low context in forensic laboratories or workplaces with a broad range of communicators. Explain why you are writing or repeating discussions with your coworkers. High-context communicators might get frustrated or annoyed with the redundancy if they don't understand why everything is repeated or recorded.

For low-context to high-context communications, don't get offended if you don't receive a response to your emails or calls. It may be an implied confirmation of receipt, or your recipient may be extremely busy. If a matter requires an urgent response, make that clear, along with the reasons for the urgency.

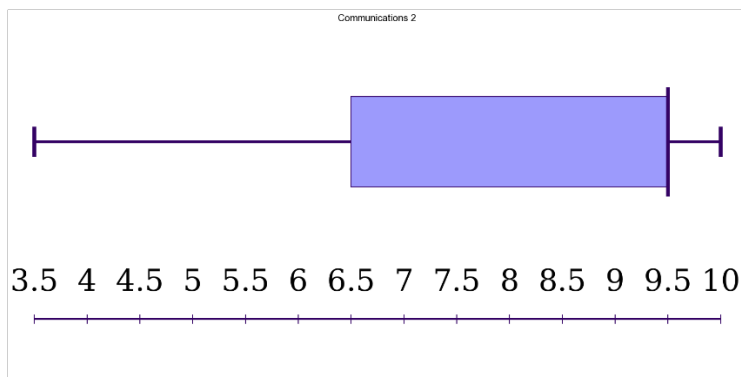
Communication Survey Questions and Results

I strive to communicate simply, clearly, and explicitly. I avoid reading (and speaking) between the lines. (1 = Strongly Disagree; 10 = Strongly Agree)



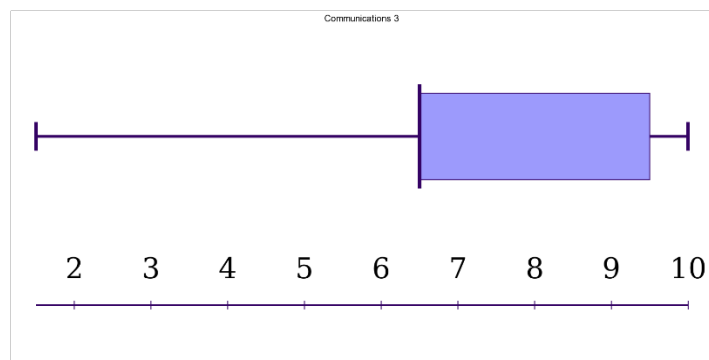
Average response: Agree (7.3)
Most common response: Agree (6.5)

The most effective presenters spell out what they're going to tell you, then tell you, and then summarize what they've told you, to ensure that the communication is crystal clear.
 (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Agree (8.3)
 Most common response: Strongly Agree (9.5)

After a meeting or a phone call, it is important to recap in writing exactly what was said, to prevent misunderstanding or confusion. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Agree (7.5)
 Most common response: Strongly Agree (9.5)

Average Cultural Profile for Forensic Practitioners in California

Communicating. This scale measures the degree to which a culture prefers **low- or high-context** communication, a metric developed by anthropologist **Edward Hall**. In low-context cultures (such as the U.S., Germany, and the Netherlands), good communication is precise, simple, and explicit. Messages are expressed and understood at face value. Repetition and written confirmation are appreciated, for clarity's sake. In high-context cultures (such as China, India, and France), communication is sophisticated, nuanced, and layered. Reading between the lines is expected. Less is put in writing, and more is left to interpretation.



2. Evaluating: Direct Negative Feedback vs. Indirect Negative Feedback

Direct Negative Feedback:

- Direct evaluators get to the point when giving feedback or offering critique, and they may use upgraders like “very” or “extremely.”
- Positive feedback is either just as direct or implied. They tend not to provide positive feedback.
- The weight of negative feedback might be over-emphasized.

Indirect Negative Feedback:

- These evaluators sandwich criticism with agreement or praise, and they may use downgraders like “somewhat” or “a little.”
- They give one positive point, then one negative point.
- The weight of negative feedback might be lost among the positive points.

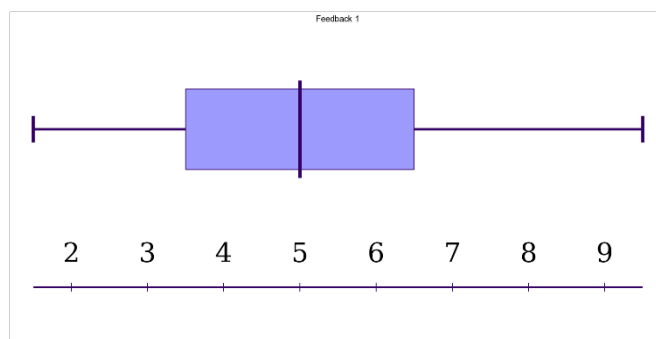
Evaluating in Forensic Laboratories

The method of evaluation depends on your lab’s procedures and culture. To avoid confusion or hurt feelings, be objective in any negative feedback and provide an opportunity for improvement by indicating what might be done to help improve performance. Indirect negative feedback is most helpful when positive feedback can relate to negative feedback. For example, “You provide very informative technical reviews, but is there any way to increase the number of tech reviews you complete in a week?”

Direct negative feedback is most helpful when negative feedback is provided in a calm and professional manner. People tend to get defensive if they feel they are being blamed or shamed in some way.

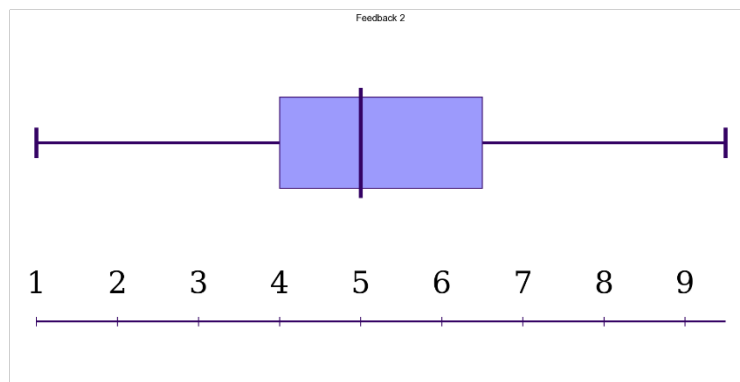
Evaluating Survey Questions and Results

If I’ve done poor work, I prefer to be told bluntly rather than gently or diplomatically.
(1 = Strongly Disagree; 10 = Strongly Agree)



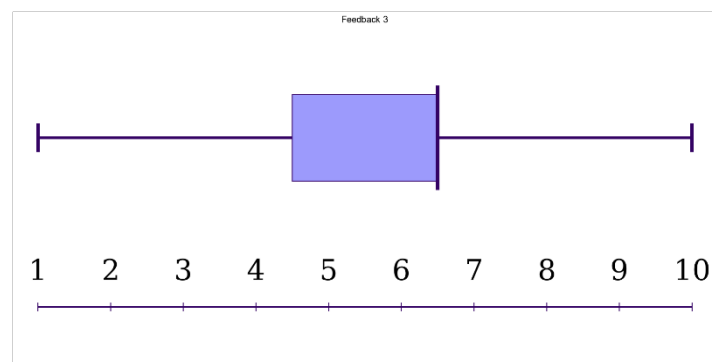
Average response: Neutral (5.4)
Most common response: Disagree (3.5)

I prefer to give negative feedback immediately and all at once, rather than little by little, building up the picture over time. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (6.0)
Most common response: Agree (6.5)

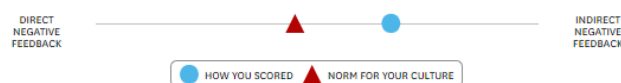
When I give negative feedback, I pay more attention to how the person receiving the message feels rather than to how clearly I expressed my criticism. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (6.0)
Most common response: Agree (6.5)

Average Cultural Profile for Forensic Practitioners in California

Evaluating. Often confused with the Communicating scale, Evaluating measures something distinct: the relative preference for **direct versus indirect** criticism. The French, for example, are high-context communicators relative to Americans yet are much more direct with negative feedback. Spaniards and Mexicans are equally high-context communicators, but the Spanish are much more direct than Mexicans when it comes to giving negative feedback.



3. Persuading: Principles-First vs. Applications-First

Principles-First:

- This listener wants to hear the methodology before the idea.
- They prefer establishing a general theory, then applying it to the specific situation.
- They will likely assume you don't have a solid foundation for your proposal if you don't cover the principles of your proposal first.

Applications-First:

- This listener wants actionable information before the facts
- They are more interested in how things work than why.
- They will likely get bored if you don't get right down to the applications and will likely dismiss the results of your proposals.

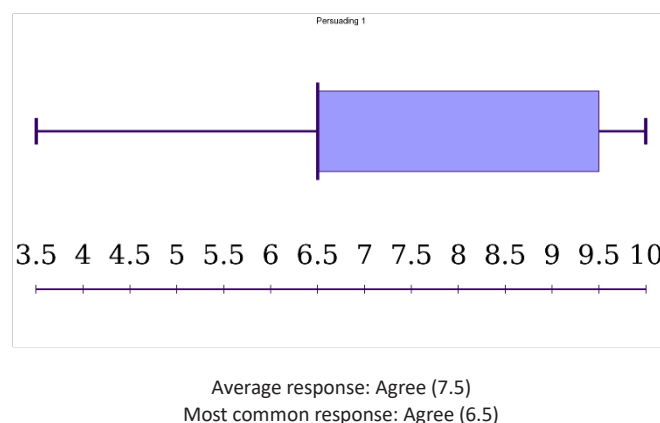
Persuading in Forensic Laboratories

Again, this depends largely on the culture of your laboratory or unit. Discover what end of the spectrum your audience generally is and cater to that style of persuasion.

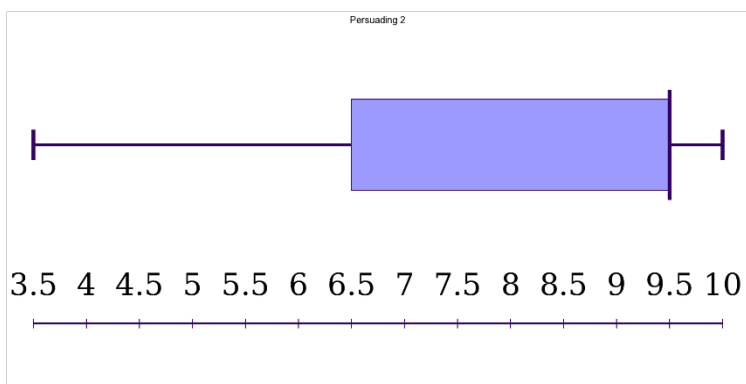
In general, forensic professionals are principles-first thinkers. Although forensics is an applied science, forensic professionals generally come from a STEM educational background, which focuses primarily on principles and theories.

Persuading Survey Questions and Results

A good presenter exerts influence by getting right to the point with concrete examples, conclusions, tools, and next steps. (1 = Strongly Disagree; 10 = Strongly Agree)

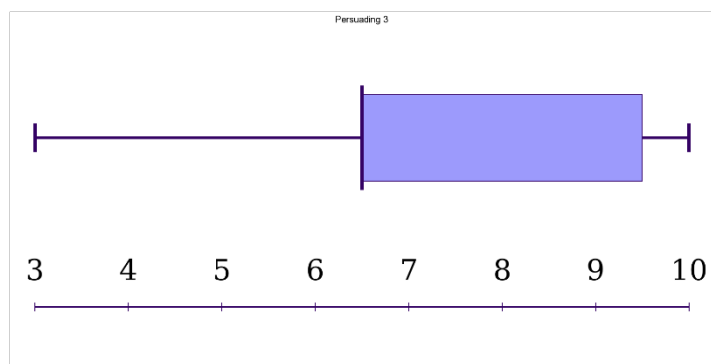


For business decisions made by a group, it is vital to leave adequate time to debate the concepts after all the evidence is presented. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Agree (8.3)
Most common response: Strongly Agree (9.5)

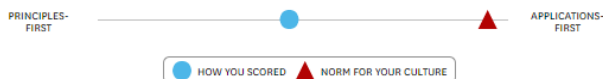
A good presenter influences their audience by explaining and validating the underlying concept before sharing examples or drawing conclusions. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Agree (7.3)
Most common response: Agree (6.5)

Average Cultural Profile for Forensic Practitioners in California

Persuading. This scale measures preference for **principles-first** versus **applications-first** arguments (sometimes described as deductive versus inductive reasoning). People from Germanic and southern European cultures usually find it more persuasive to lay out generally accepted principles before presenting an opinion or making a statement; American and British managers typically lead with opinions or factual observations, adding concepts later to explain as necessary.



4. Leading: Egalitarian vs. Hierarchical

Egalitarian:

- Lower-status members of the organization do not expect or accept it when power is distributed unequally.
- It is acceptable to speak directly to someone several layers above your position.
- There is little interest in boundaries and territory.
- Sharing ideas or disagreements is easily done.

Hierarchical:

- Lower-status members of the organization expect and accept that power is distributed unequally.
- It is viewed as “going over your supervisor’s head” if you speak directly to someone several layers above your position.
- There is a great concern for boundaries and ownership.
- Sharing ideas or disagreement is restricted.

Leading in Forensic Laboratories

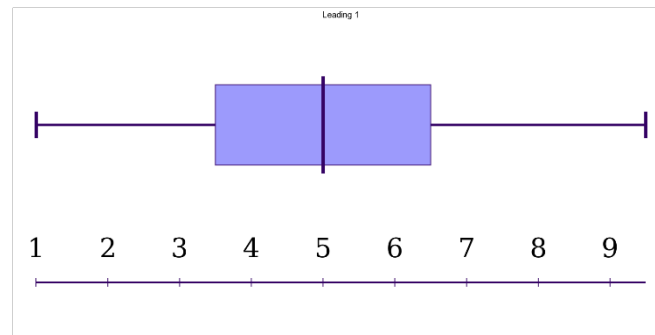
Forensic labs are generally associated with a highly hierarchical structure. This is usually due to an association with a law enforcement agency. In a hierarchical structure, it is best to follow the command or leadership chain to propose new ideas or share disagreements.

In an egalitarian structure, one should expect that the highest leader may act and talk like a subordinate; this should not indicate a lack of leadership if it is clearly understood.

It is best practice for employees to understand the type of leadership structure in place clearly. If there is any confusion or misunderstanding, it may result in feelings of restriction (hierarchical) or the appearance of incompetence (egalitarian).

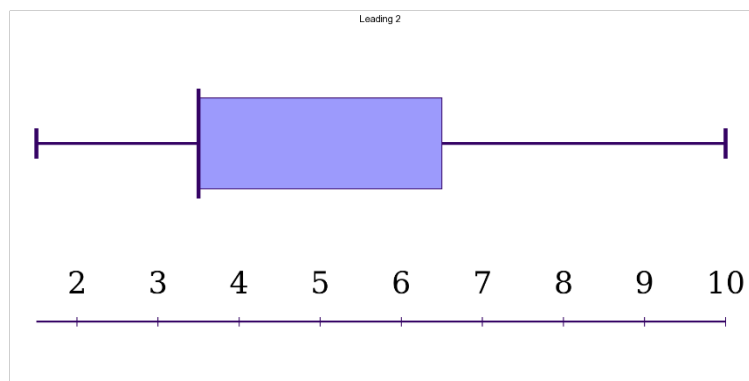
Leading Survey Questions and Results

If I don't agree with the boss, I say so openly, even in front of others.
(1 = Strongly Disagree; 10 = Strongly Agree)



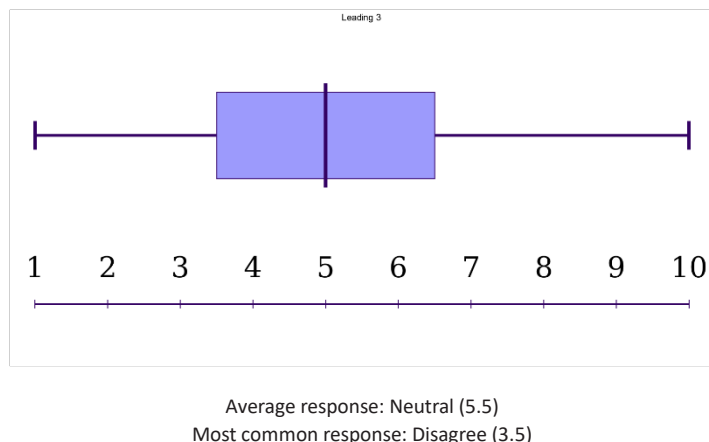
Average response: Neutral (4.9)
Most common response: Disagree (3.5)

In meetings with colleagues, clients, or suppliers, I don't pay much attention to the hierarchical positions of the attendees. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (5.1)
Most common response: Disagree (3.5)

*If I have ideas to share with someone several layers above or below me, I speak to that person directly rather than communicating through my immediate boss or immediate subordinate.
(1 = Strongly Disagree; 10 = Strongly Agree)*



Average Cultural Profile for Forensic Practitioners in California

Leading. This scale gauges the degree of respect and deference shown to authority figures, on a spectrum between the **egalitarian** and the **hierarchical**. The former camp includes Scandinavia and Israel, whereas China, Russia, Nigeria, and Japan are more hierarchical. The metric builds on the concept of power distance, first researched by **Geert Hofstede**, who conducted 100,000 management surveys at IBM in the 1970s, and later researched by Robert House and Mansour Javidan in their **GLOBE Study of 62 Societies**.



5. Deciding: Consensual vs. Top-Down

Consensual:

- Decisions are made only when everyone agrees.
- Decisions are painstakingly planned but final.
- Viewed by top-down decision-makers as ineffective and wandering.

Top-Down:

- Everyone is expected to support the leadership's decision, regardless of their opinion.
- Decisions are made quickly but may be subject to continuous adaptation and change.
- Viewed by consensual decision-makers as unnecessarily fast and hasty, and perhaps uninformed.

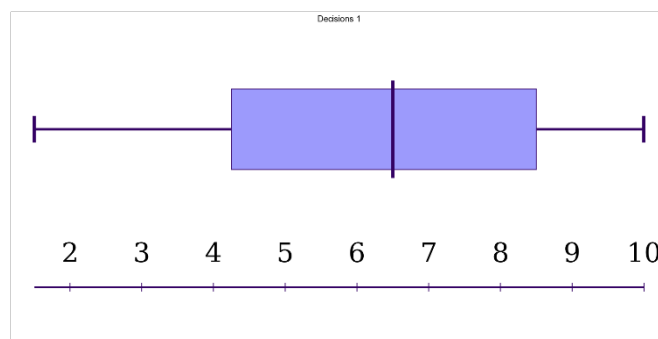
Deciding in Forensic Laboratories

In general, forensic laboratories operate on consensus-based decision-making. There are many different units that a lab director manages, and the director may not have the expertise needed to make informed decisions about a particular unit.

In any case, it is best practice to be clear about the type of decision-making that the unit or laboratory operates under. Communication about changes to policies that affect the workflow of forensic professionals should especially be made clear. Doing so will improve buy-in and compliance.

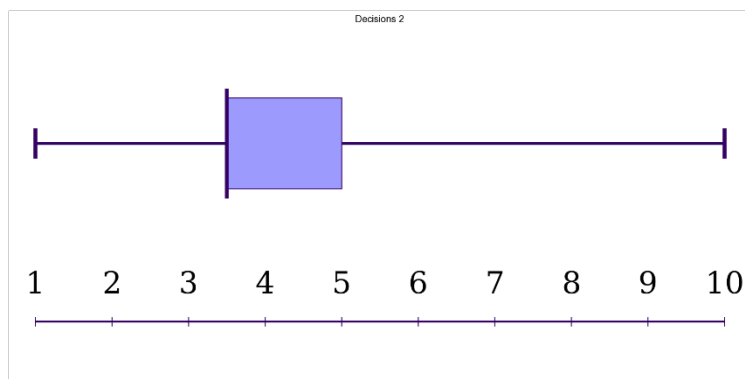
Deciding Survey Questions and Results

Even if it takes a long time, it is better to involve everyone in decision-making, as that ultimately yields better decisions and more reliable buy-in. (1 = Strongly Disagree; 10 = Strongly Agree)



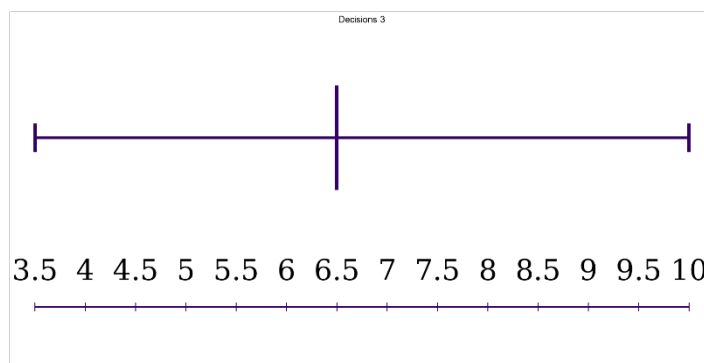
Average response: Agree (6.7)
Most common response: Agree (6.5)

Consensus-building ultimately leads to mediocre decisions and wastes time. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Disagree (4.2)
Most common response: Disagree (3.5)

If the boss makes a unilateral decision I disagree with, I will still comply with the decision.
 (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Agree (6.9)
 Most common response: Agree (6.5)

Note: Responses to this question were overwhelmingly 6-7, hence the absence of an interquartile range.

Average Cultural Profile for Forensic Practitioners in California

Deciding. We often assume that the most egalitarian cultures in the world are also the most **consensual**, and that the most hierarchical ones are those where the boss makes **top-down** decisions. That's not always the case. The Japanese are strongly hierarchical but have one of the most consensual cultures in the world. Germans are more hierarchical than Americans but also more likely to make decisions through group consensus. This scale explores differences between building group agreement and relying on one person (usually the boss) to make decisions.



6. Trusting: Task-Based vs. Relationship-Based

Task-Based:

- People place their faith in those who demonstrate professional competence and efficiency, regardless of whether they have a social relationship with each other. They trust proven skills and competence.
- Won't spend much time talking about their personal lives.
- Do not tend to socialize with colleagues outside of work.
- Enforce strict work-life boundaries with themselves and others.

Relationship-Based:

- Personal relationships are at the core of business relationships. People run businesses, not equipment or buildings.
- Will spend time discussing their personal lives and getting to know their coworkers.
- Tend to socialize with colleagues outside of work.

- Work-life boundaries are hazier.

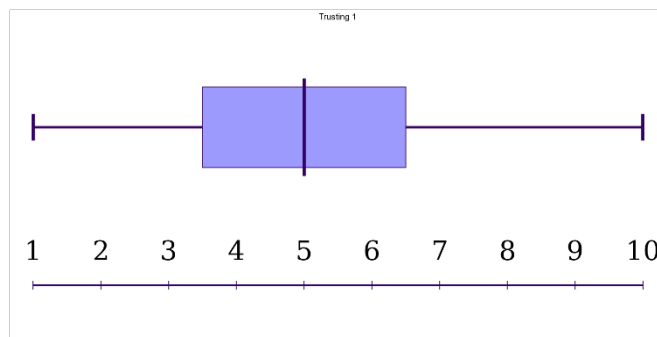
Trusting in Forensic Laboratories

Trust depends on the individual, unit, and lab culture. If you are on one end of the spectrum, realize and understand there are different ways people trust.

Don't take personal offense if someone wants you to join happy hour (relationship-based) or doesn't want to socialize outside of work (task-based). With professional relationships, it is best to clearly communicate your reasons for maintaining or relaxing boundaries around others.

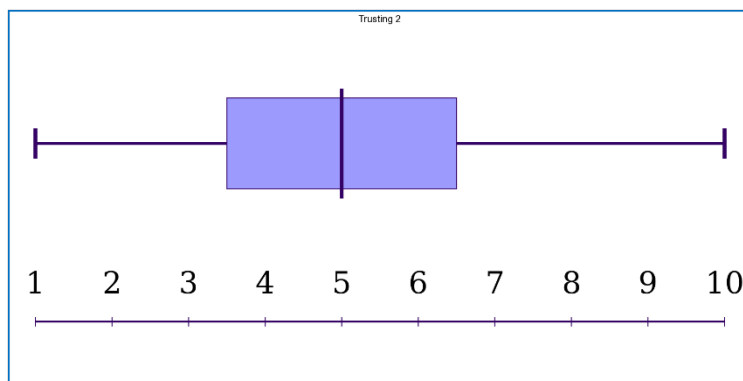
Trusting Survey Questions and Results

It is better not to get too emotionally close to colleagues, suppliers, and clients.
(1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (5.4)
Most common response: Agree (6.5)

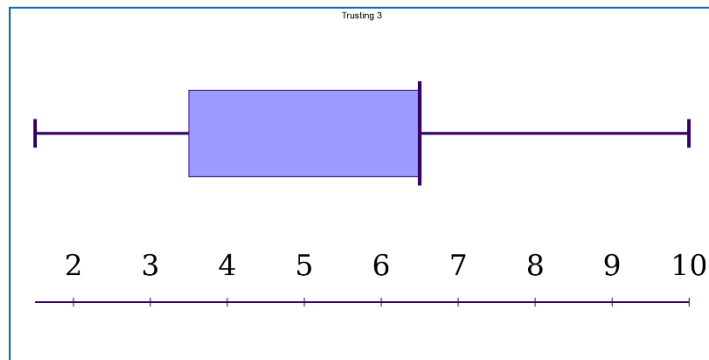
I can't really trust a colleague, supplier, or client until I spend time getting to know them personally. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (6.0)
Most common response: Disagree (3.5)

I often invest time in sharing coffee, meals, or drinks with colleagues, suppliers, and clients – without discussing work much, just getting to know one another.

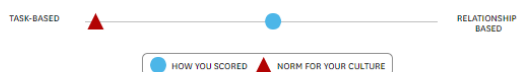
(1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (5.7)
Most common response: Agree (6.5)

Average Cultural Profile for Forensic Practitioners in California

Trusting. This scale balances **task-based** trust (from the head) with **relationship-based** trust (from the heart). In a task-based culture, such as the United States, the UK, or Germany, trust is built through work: *We collaborate well, we like each other's work, and we are fond of each other—so I trust you.* In a relationship-based society, such as Brazil, China, or India, trust is built by weaving personal, affective connections: *We have laughed together, have shared time relaxing together, and have come to know each other at a deep, personal level—so I trust you.* Many scholars, such as **Roy Chua** and **Michael Morris**, have researched this topic.



7. Disagreeing: Confrontational vs. Non-Confrontational

Confrontational:

- Open disagreement is accepted and is a way to root out any potential flaws.
- Confrontation will not negatively impact the relationship.

Non-Confrontational:

- Open disagreement is discouraged and is preferred to be done in private (praise in public, disagree in private).
- Disagreement and open debate are negatives for the team or organization.
- Open confrontation is inappropriate and will break group harmony or negatively impact the relationship.

Disagreeing in Forensic Laboratories

Successfully relaying your disagreements relies heavily on trust, so take the time necessary to build a close, trusting relationship with your peers. Building this personal connection can go a long way to establishing trust and reducing the level of negativity in future disagreements or confrontations.

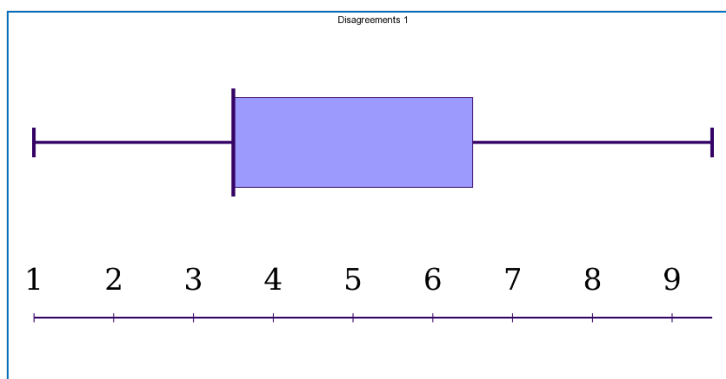
Strategies for non-confrontational cultures:

1. If a meeting is likely to result in disagreements, consider skipping it and consult with your team members one-on-one before rescheduling.
2. Depersonalize disagreement by separating ideas from those proposing them (e.g., anonymous feedback/questions).
3. Hold informal pre-meetings to discuss the idea before the formal decision-making meeting.

In general, if a culture feels that a good meeting ends when a decision is made, you can garner support for an idea before you finally meet to make the decision.

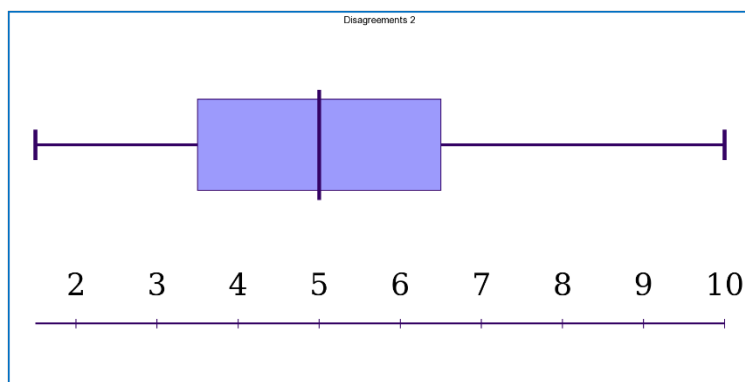
Disagreeing Survey Questions and Results

Frequently expressing open disagreement with other team members is likely to positively affect a team's chances of success. (1 = Strongly Disagree; 10 = Strongly Agree)



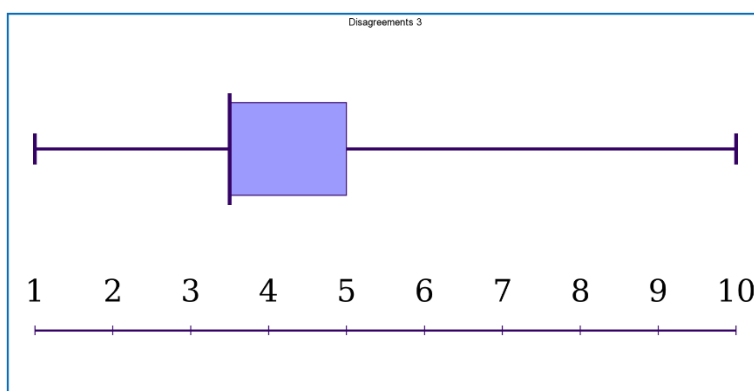
Average response: Neutral (4.7)
Most common response: Disagree (3.5)

When I disagree strongly with a point made by a colleague during a presentation, I express that disagreement. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (5.6)
Most common response: Agree (6.5)

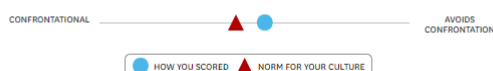
Open debate, where team members challenge one another's ideas and opinions, is likely to engender bad feelings and ruin relationships. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Disagree (4.1)
Most common response: Disagree (3.5)

Average Cultural Profile for Forensic Practitioners in California

Disagreeing. Everyone knows that a little confrontation is healthy, right? The recent U.S. business literature certainly confirms that viewpoint, but different cultures have varying ideas about how productive it is. People in Indonesia, Japan, and Thailand view the public airing of disagreement very dimly, whereas those in Germany, France, and the Netherlands are quite comfortable with it. This scale measures **how you view confrontation**—whether you feel it is likely to improve group dynamics or to harm relationships within a team.



8. Scheduling: Linear-Time vs. Flexible-Time

Linear-Time:

- Time is viewed in absolute terms, and people focus on one task at a time.
- Project steps are completed sequentially and only one step at a time.
- Emphasis is on the deadline and sticking to the schedule.
- Emphasis is on good organization and promptness over flexibility.

Flexible-Time:

- Time is seen in flexible, relative terms, and people may engage in several tasks at once.
- Project steps are approached fluidly, changing tasks as opportunities arise.
- Many things are dealt with at once, and interruptions are accepted.
- The focus is on adaptability, and flexibility is valued over organization.

Scheduling in Forensic Laboratories

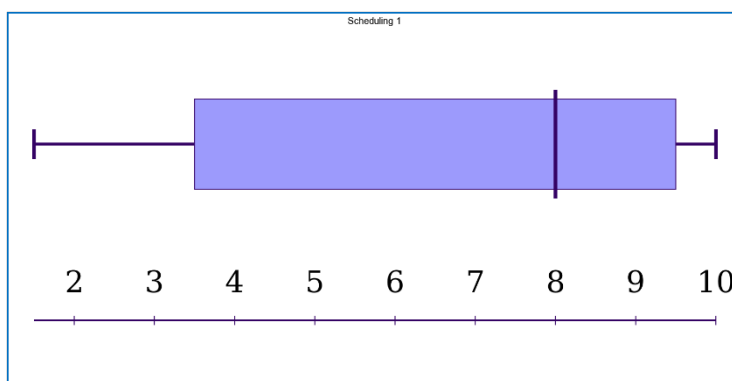
In general, forensic laboratories operate on linear-time scheduling. Casework has a linear flow, and court dates are strict (usually). Rush cases have an urgency rooted in public safety.

However, depending on your lab's or unit's culture, day-to-day meetings can operate on either linear-time or flexible-time. Again, it is best for everyone to have a clear understanding of the operational culture to avoid any misunderstandings.

Forensic practitioners may operate more on the flexible-time end of the spectrum; this might result from attempting to balance the linear rigidity of casework and court.

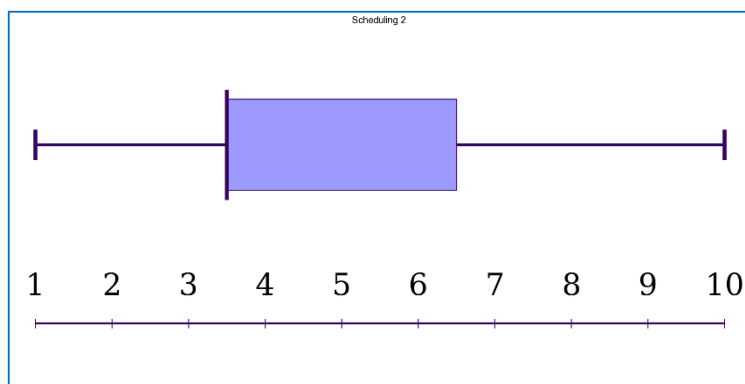
Scheduling Survey Questions and Results

If I have a meeting at 9:00 AM, that's when I will arrive, not 5, 10, or 15 minutes later.
(1 = Strongly Disagree; 10 = Strongly Agree)



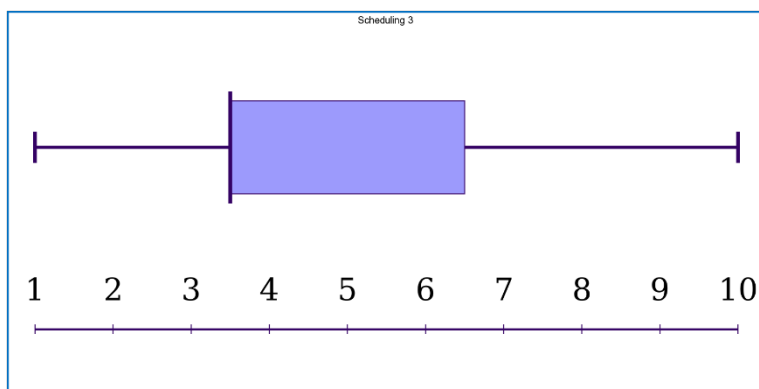
Average response: Agree (7.1)
Most common response: Strongly Agree (9.5)

Professionalism has more to do with being organized and structured than being flexible and reactive. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (5.0)
Most common response: Disagree (3.5)

A meeting agenda should be followed closely; it's not a broad guideline that should change depending on where the group wants to take the discussion. (1 = Strongly Disagree; 10 = Strongly Agree)



Average response: Neutral (4.8)
Most common response: Disagree (3.5)

Average Cultural Profile for Forensic Practitioners in California

Scheduling. All businesses follow timetables, but in India, Brazil, and Italy, people treat a schedule as a suggestion. In Switzerland, Germany, and the U.S., people typically stick to the plan. This scale measures whether you view time as **linear or flexible**, depending on how much value you place on structure or adaptability. It is based on the monochronic/polychronic distinction formalized by Edward Hall.



So How Does CQ Help Me Testify in Court?

Here are some quick pointers going through each of the dimensions of culture in a courtroom:

- Communicating: Low-context communication – No winking to the jury.
- Evaluating (for post-testimony evaluations): Depends on your lab's or evaluator's cultural position
- Persuading: Applications-first – Juries don't want to hear the nitty-gritty details of the theories of your work; they want to know the basic concepts and how they apply in this case.
- Leading (Strange one): You are operating in a hierarchical structure (Judge is #1) but communicating to a jury that operates in a separate egalitarian structure (determination of verdict); each juror has equal voting power.
- Deciding: Top-down decision-making – The judge makes the final determinations.
- Trusting: Task-based – The jury decides if they trust you based on your work experience and performance. You're not taking the jury out to lunch or happy hour.
- Disagreeing: Confrontational – Don't get offended when attorneys get on your back about something.
- Scheduling: Linear-Time – Court dates and times are rigid (usually, but they expect punctuality).

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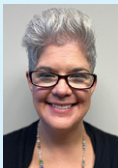
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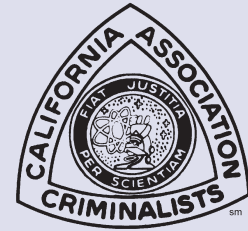


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