It’s not you, it’s me

Communicating Results in Forensic Reports and Testimony

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TLDR:

Science communication research explains WHY this work is so hard. You need to set your audience up for success. Let’s train scientists in the actual skills required to do that.
Why does this matter?

1) Relating to or denoting the application of scientific methods and techniques to investigation of crime.

2) Relating to courts of law.

Mid 17th c. from Latin forensic “in open court, public,” from forum

Forensics exists to be communicated.
Now is our chance to get it right!

“...amidst the furor over the most “correct” or “accurate” way to present evidence, the perspective of the fact-finder is often lost. Without comprehension, correctness is moot.”

Eldridge, 2019, FSI: Synergy, Vol. 1, p 24-34.
Communication Challenges

Content (Science Communication)
- Complexity
- Subjectivity/Uncertainty
- Language

Structural (Reports + Testimony)
- Adversarial
- Deficit v. Dialogue Model
- Norms of writing or formal courtroom
- Performative
Following this PCR procedure, 1ul of fluorescently-tagged, amplified DNA product was added into the prepared CE mixture tube.
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Communication as a 2-way process

**CREATION**
- **SENDER**
  - Speaker
  - Writer
  - Scientist
  - Expert

**MESSAGE**
- Content
- Verbal
- Non-verbal

**CHANNEL**
- **CREATION** to **APPLICATION**

**APPLICATION**
- **RECEIVER**
  - Jury
  - Judge
  - Attorney
  - Investigator

**PURPOSE**
- Encode
- Decode

**NOISE**
- Feedback

**FEEDBACK**
Research-driven Communication Theories

- Framing Theory
- Narrative validity
- Primacy, Recency, Repetition Biases
- Affect heuristic for risk assessment
Ordering Information

SCIENTIFIC NORM

Background
Supporting Details
Results & Conclusions

HUMAN COGNITION

Bottom Line
So, What?
Supporting Details
Use the world of Science Communication research!

- Frame of Reference/
  Analogy shifting
- Active listening →
  Adaptability
- Constructive Empathy
- Building a narrative
- Language Recognition
Now is our chance to IMPROVE FS communication!
Use the world of Science Communication research!

- Frame of Reference/
  Analogy shifting
- Active listening →
  Adaptability
- Constructive Empathy
- Building a narrative
- Language Recognition
Thank You!

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References

Core Competencies

- Frame of Reference/Analogy shifting
- Active listening → Adaptability
- Constructive Empathy
- Building a narrative
- Language Recognition
NORMS OF SCIENCE WRITING

• **Passive Voice** - When the action itself is more important than who performed the action, i.e. in methodology sections, the experimental process is the subject of the sentence.

• **Transitional Words v. Topic Sentence** – continually putting steps and inferences in context, indirectly justifying choices by putting basis in dependent clauses.

• **Compound Nouns and Adjective Chains** - combining nouns and adjective chains or multiple nouns to create lengthy multi-part nouns with greater precision and accuracy.
Decision points in CJ process

- Arrest
- Personal use vs. PWID
- BAC breath test

- Charging/Arraignment
- EyelID vs. clean FP link

- Plea negotiations
- DNA mixture report

- Pre-trial conferences/disposition
- Toxicology screen

- Prelim or Admissibility hearings
- LR opinion testimony

- Trial
- Sentencing
  - PSR risk assessment
  - Jury
  - Judge

- P+D attorneys, Defendant
- P+D attorneys
- Judge

- Police officer
- Prosecutor
Some people agree!

Communication as a “core element” in cross-disciplinary continuing forensic education training

Communication as “required component” of forensic Training-to-Competency programs

Lack of standard language for testimony identified as a significant problem

Testimony monitoring and review adopted as corrective measure.
Good communication is becoming even more important.

What FSSP Leaders Should Know About Artificial Intelligence and its Application to Forensic Science

→ Evaluative/LR opinions in more disciplines.
→ Software and AI analytical bases for interpretations.
The Courtroom is a terrible model for communication!

Testimony is the Evidence.

Forensic Science findings acquire meaning in context.
Forensic Reports and Expert Testimony