

How Forensic Evidence Fails

Criminal Justice

The patterned ways forensic conclusions fail, and what reduces them.

Errors are systematic, not random, so they can be designed against.

Where errors enter

Contamination at scene, store or laboratory

Contextual bias from case information

Samples too small, degraded or mixed

A method used outside its validated range

Overstated conclusions in the report

What reduces them

Blind or sequential verification

Context management for examiners

Accreditation and proficiency testing

Documented, reproducible reasoning

Reporting uncertainty rather than certainty

Educational reference. Cognitive bias in forensic decisions is well documented; it is a design problem, not an accusation.