PROBABILITY AND THE LAW

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HANDOUT #7 – FEB 21, 2014

1. BRANION V. GRAMLY (1988)

Donna Branion died on December 22, 1967. She was strangled and shot at least four times. She was not molested; there were no signs of forced entry into the apartment, from which nothing was stolen. This led the police to doubt that a stranger was responsible. A jury concluded that Donna's husband, John M. Branion, Jr., did the deed. The evidence was circumstantial, but what circumstances!

. Branion called the police after finding his wife sprawled in a pool of blood. Although a physician, he did nothing to investigate her condition or assist her. He told the police that he knew from the lividity of Donna's legs that she was dead. A pathologist testified that Donna Branion's legs did not display lividity.

. Ballistics experts determined, from the rifling of the slugs and marks on the casings, that the murder weapon was a 9mm,.38 caliber Walther PPK, a rare gun. John Branion, a gun collector, owned a 9mm,.38 caliber Walther PPK.

. Branion had a mistress, a nurse at the hospital where he worked, and the Branion home was not a model of domestic tranquility. Branion married his mistress shortly after his wife's death.

[...] The defense was that he had been at the Hospital attending patients until 11:30 a.m. and that, on the way home, he made two stops – one to pick up his son Joby at a private school, the other to meet a friend with whom the Branions planned to lunch. The police logged the call informing them of the murder at 11:57 a.m. There was not enough time to drive from the Hospital to his home, with two stops, and to kill his wife before calling the police, Branion insists – especially because Donna was strangled as well as shot, and the bruises on her neck took at least 15 minutes to form.

[...] It would be nonsense to pretend that this is a simple case or that Branion's guilt is obvious. There is no direct evidence of guilt–no powder residue on Branion's hands or blood under his fingernails, for example. Doubtless a physician knows how to clean his hands thoroughly and quickly, yet the time is tight even on the state's theory. [...] Yet even "direct" evidence does not ensure guilt; eyewitness testimony is often unreliable.

[...] All we can ask is whether, assuming the jury resolved all disputes in the state's favor and drew all inferences from that evidence, it would have been rational to convict. Not whether we would convict, but whether thoughtful people could convict. Careful, rational jurors could have believed that the evidence about the Walther PPK and Branion's failure to approach his wife's body, coupled with his lie to the police about the lividity of his wife's legs, swamped any doubts about the time sequence. The evidence in this case is sufficient under Jackson.

2. PROBLEMS WITH....

Eyewitness testimony:
- memory can be easily manipulated (research by Elizabeth Loftus)
- comparative similarity theory of eyewitness identification
- we overlook important details (research by Simons & Cabris)

Fingerprints:
- no one has proved their uniqueness (although the FBI thinks differently)
- whether two fingerprints match or not is highly discretionary

DNA evidence:
- lab technicians could make a mistake in reporting a match
- two people might share the same DNA profile (b/c genetic profiles are not unique)
- in DNA databases there could be entries that are mislabeled, repeated, etc.
- DNA evidence might be enough to establish *source*, but what about *guilt*?

| QUESTION 1: | If the most effective way for determining eyewitness or fingerprint misidentification is through DNA evidence (see *Innocent Project*), is DNA evidence *alone* enough to exonerate?

| QUESTION 2: | Is the US criminal justice system really so bad in terms of false conviction rate?[1]

3. GARY WELLS' EXPERIMENTS

SCENARIOS	HYPOTHESIS BEING TESTED	DO MOST SUBJECTS CONVICT?
volume-of-traffic	uneasiness with statistics	no
weight-attendant	uneasiness with statistics	yes
rate-of-accidents	causal relevance	no
tire-tracks	market fairness	no
tire-tracks-belief	evidence-to-fact reasoning	yes

Tire-track[2]
Tire-track-belief[3] | QUESTION: | Is this similar to a decision based on a weighted coin?

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[1]"What if upwards of ten thousand Americans have been falsely convicted in the last fifteen years? That comes to 667 false convictions per year, meaning that the annual risk an average American runs of being falsely convicted of some crime or other is less than 0.0003%. Larry Laudan (2008), 'The Elementary Epistemic Arithmetic of Criminal Justice,' *Episteme*.

[2]A second county transportation official took the stand and reported that he examined the dead dog and took prints of the tire tracks. These prints were then transferred onto paper and compared to all 10 of the 10 buses owned by the Blue Bus Company and the 10 owned by the Grey Bus Company. The tracks matched 80 % of the Blue Bus Company's buses and matched only 20 % of the Grey Bus Company's buses. (p. 743)

[3]A second county transportation official took the stand and reported that he examined the dead dog and took prints of the tire tracks. The prints were then transferred onto paper and matched to all of the 10 buses owned by the Blue Bus Company and the 10 owned by the Grey Bus Company. He testified that the technique used for matching is correct 80 % of the time and, based on this technique, he believed that the bus that ran over Mrs. Prob's dog was a Blue Bus Company bus. (p. 747)