

Crime, Punishment and 'Individualized' Evidence

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Consider the following toy legal case:

Smith vs Red Cab. Mrs Smith was driving home late one night. A taxi came towards her, weaving wildly from side to side across the road. She had to swerve to avoid it; her swerve took her into a parked car; in the crash, she suffered two broken legs. Mrs Smith therefore sued Red Cab Company. Her evidence is as follows: She could see that it was a cab which caused her accident, but she could not see its colour late at night. There are, however, only two cab companies in town, Red Cab and Green Cab, and of the cabs in town that night, 6 out of 10 were operated by Red Cab. (from Jarvis Thomson (1986))

Here is another toy case:

***PRISONERS.** One hundred prisoners are exercising in the prison yard. Ninety-nine of them suddenly join in a planned attack on a prison guard; the hundredth prisoner plays no part. There is no evidence available to show who joined in and who did not. A prisoner chosen at random has probability of guilt of 0.99 and is therefore convicted by the jury. (from Redmayne (2008))*

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–We will be considering a suggestion from Judith Jarvis Thomson regarding ‘specific/individualized’ evidence vs ‘general’ evidence.

Preliminaries

More Than Strength of Belief?

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Concluding Remarks

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- ▶ *Meeting* legal standards of evidence should then be a matter of epistemology — whether evidence is adequate for meeting standard.

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e.g. perhaps convicting for murder has greater expected utility than acquitting, provided probability for guilt is greater than 0.95; then 0.95 belief is the appropriate threshold translation of 'beyond reasonable doubt', at least for murder cases.

- ▶ then verdict is a matter of whether $\Pr(\text{guilt} \mid \text{evidence}) > 0.95$

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So is there another way to explain the intuitions in keeping with the fact/value divide?

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- ▶ *individualized* rather than *general* evidence? (Thomson)

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Consider: 'all evidence of causes is statistical'

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- ▶ If it was a green cab, suppose, the witness would have been less likely to report red.
- ▶ So we have the familiar comparison between $\Pr(\text{witness reports red} \mid \text{Red Cab})$ and $\Pr(\text{witness reports red} \mid \text{Green Cab})$
- ▶ The idea is that the witness report is appropriately causally connected/sensitive to the guilt of Red Cab, in this incidence.

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Thomson says 'It would then be a matter of **luck** (like tossing a coin) that we would correctly convict Red Cab.'

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The prior distribution of cabs is arguably also **causally connected** to the incident, if they each have some propensity to cause an accident.

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$$\begin{aligned} \text{Consider } & \Pr(\text{Red Cab} \mid \text{evidence}) \\ &= \Pr(\text{evidence} \mid \text{Red Cab}) \times \Pr(\text{Red Cab}) / \Pr(\text{evidence}) \end{aligned}$$

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- ▶ not probabilistic **strength** of belief plus **x-factor**
- ▶ but some measure based on likelihood ratios? How would the threshold be determined?

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Or alternatively, take deflationary stance towards intuitions in our examples.

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- ▶ Question: Is there some epistemic warrant instead of/beyond strength of belief that is required to meet legal standards of proof?
- ▶ –There is plausibility to the call for **individualized evidence**
- ▶ –What can/should the Bayesian take from this?