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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Question: Can we make sense of this intuition or is it mistaken?

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

More Than Strength of Belief?

Individualized Evidence

Assessing the Proposal

Concluding Remarks
What is not up for grabs in this talk

- separation of fact and value
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- separation of fact and value
- Or... separation of setting and meeting a standard of evidence
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- separation of **fact** and **value**

- Or... separation of *setting* and *meeting* a standard of evidence

- *Setting* legal standards of evidence involves balancing consequences of errors — driven by values
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  e.g. ‘beyond reasonable doubt’: convicting the innocent much worse than acquitting the guilty
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  e.g. ‘beyond reasonable doubt’: convicting the innocent much worse than acquitting the guilty

- Meeting legal standards of evidence should then be a matter of epistemology — whether evidence is adequate for meeting standard.
Consider: Bayesian Model

- standards of proof amount to probabilistic thresholds for guilt
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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 \( \Pr(\text{guilt} \mid \text{evidence}) > 0.95 \)
Return to Our Question

We cannot explain the intuition of inadequate evidence, for the toy examples, via standard Bayesian model.
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— The evidence, by assumption, meets the probability thresholds that have been previously determined!
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— The evidence, by assumption, meets the probability thresholds that have been previously determined!

So is there another way to explain the intuitions in keeping with the fact/value divide?
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More Than Strength of Belief?

Perhaps standard of proof is a function of more than just the jurors' degree of belief for guilt.

There have been a number of suggestions for what this epistemological x-factor might be:

▶ sufficient weight of evidence, in addition to strength?

▶ sufficient diversity of evidence, in addition to strength?

▶ sufficient stability of belief, in addition to strength?

▶ individualized rather than general evidence? (Thomson)
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- witness reports that refer to a particular perpetrator?
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Consider: ‘all evidence of causes is statistical’
I strongly suspect that what people feel the lack of, and call individualized evidence, is evidence which is in an appropriate way causally connected with the (putative) fact that the defendant caused the harm. (Thomson)

Thomson appeals to witness case for contrast:

▶ Imagine in Mrs Smith’s case that a witness, with some reliability $p$, reported a red cab.

▶ If it was a green cab, suppose, the witness would have been less likely to report red.

▶ So we have the familiar comparison between $Pr(\text{witness reports red} | \text{Red Cab})$ and $Pr(\text{witness reports red} | \text{Green Cab})$.

▶ 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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But it does not single out Red Cabs over Green Cabs in an appropriate causal manner.

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What to think of this?

The term 'luck' is misplaced here. There is luck in the witness report being correct too.

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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Assessing the Proposal

I am interested in the best way of presenting this proposal...

Perhaps we should regard this individualized-evidence proposal as a likelihoodist/error statistics proposal. Where 'causally connected' matches up to objective likelihood distributions? ▶

Not sure, since the prior distribution of cabs here is, by assumption, an objective one. ▶

But then it is a stretch to claim the cabs have equal propensity to cause an accident. If we were to go with this... legal standards of evidence would need to be seriously revised ▶

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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What might the Bayesian say?

Recall some other possibilities for epistemological x-factor mentioned earlier:

▶ sufficient weight of evidence, in addition to strength?

▶ sufficient diversity of evidence, in addition to strength?

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Could appeal to one of these.

Or alternatively, take deflationary stance towards intuitions in our examples.
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Concluding Remarks
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– work in progress!

▶ 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?
Concluding Remarks

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