Can we trade preventive detention for lower sentences?

Introducing Ecological Rationality
• There is believed to be a tradeoff between preventively detaining the dangerous (those who have or are expected to have a high recidivism rate) and sentence length.

What is the claim?
• If we can remove the dangerous when we set sentence length, the sentences that result will be much shorter since sentence length is proportional to average criminal activity.

What is the claim?
What is the policy problem this tradeoff is trying to solve?

• How can we keep crime at an acceptable level at the lowest possible cost in terms of liberty and money?
• 1. Get those who are bad actors out of society using preventive detention.
• 2. When you do, you will be able to remove the incapacitation premium current sentences include.

What exactly is being proposed?
• Determination of Risk of Dangerousness
• In US, long history
• Selective Incapacitation

We have seen this idea before...
1. Small number of criminals are responsible for much of the crime.

2. Sentencing reflects that.

3. Crime rate unresponsive to growth in selective incapacitation

4. Maybe bad mix

What empirical evidence do we have?
Wolfgang, Figlio and Sellin 1972: 6.3% of the group they examined committed over 50% of the crimes committed by the group
• Fraud and Drug sentences seems to reflect the court’s understanding of both the criminal and the crime

Sentencing: Inverted J
Selective Incapacitation: a growth industry in US

- California expects its population to triple to 1500
- Florida: 2005: 473 but expects over 1000
  - [Eric Janus --- Failure to Protect]
• Janus Argument: Too small, too expensive and not reliable to affect crime rate (but maybe not the issue here)

But does this change the crime rate? Not Really...
• Can we can lower the cost (in liberty and money) of punishment for a given level of crime by adjusting the mix of preventive detention and jail time?

Maybe we do not have the right mix
• Greenwood study: In sample, less than half of those predicted to be high rate offenders actually were (false positives = 56%)

• False negatives also: 16% of those were actually high rate offenders.

Has this been tried before?
But people tried to fly before the Wright brothers too...

• We have more sophisticated theory and technical support now.
• 1. How do we determine the proper division between those who need to be preventively detained and those who just need a fine or some jail time?
• 2. How solid is the science and the statistical tools we have in the service of setting that line?
3. Does this trade involve significant and hidden costs? Could these costs be minimized?
It depends upon what you mean by happy.

- Preventive detention is a technique we are going to use.
- It is likely not the only nor even the best way to reduce sentence length.

Look at the conclusion: Is there a happy ending?
• As an institution, it has shown itself to be dangerous in the US and in Europe.
• Understanding ecological rationality might help to keep it under control.

Look at the conclusion: Is there a happy ending?
• Where should we draw the line to minimize the costs?

Economics: the language of costs.
When I draw the line at A, how far can I lower the sentences?
• What is the point that will minimize the cost of incarceration for a given level of crime?

We want to answer...
BOREDOM ALERT!!! Market Equilibrium

Price

S

D

P*

Q*

Quantity
BOREDOM ALERT!!!        MONOPOLY

Price

S

P*

D

Q*

Quantity
BOREDOM ALERT!!! MARKET SEGMENTATION

Price

S

P*

Q*

D

Quantity
BOREDOM ALERT!!! Market For Crime

Price

S

P*

D

Q*

Quantity
The Perfect Trade

- The equilibrium production tradeoff point affordable point that yields the lowest level of crime.
• Individual Elasticity: Needs good data, sophisticated techniques and belief that past is indicative of future
• The Technology of Crime Production: as above

The Perfect Trade: depends upon our ability to know...
In addition economic analysis carries assumptions

A. We understand the essential features of the problem

B. All parties, including the criminals, are rational actors

C. There are no transaction costs involved anywhere

That sounds simple, but..
Choose not to improve information.
Better Information..OOPS!

Red = red win
Yellow = blue win

Initial Red Strength

Initial Blue Strength
Missing Essential Information

- More than Elasticity: Causes of Crime
  - Crime substitution: conditions?
  - Increasing violence to avoid capture?
  - Janus Analysis: missing the point

Is everything we need included? Probably not!
• “(Rational choice theory) assumes that individuals are rational beings who ‘engage in conscious and deliberate cost–benefit analysis such that they maximize the values and minimize the costs of their actions’ (Ward, Stafford and Gray, 2006, p. 572).” [Ritchie, 2011 --- Sentencing Advisory Council]

What is a rational actor?
The criminal as rational actor

“Rational choice theory suggests that crime results from a ‘rational calculation of the costs and benefits of criminal activity’ and individuals will ‘commit crimes ... when the benefits outweigh the costs (Spohn, 2007, p. 31). “
Regulators as rational actors

- Regulators must not be subject to undue political or popular pressure
- Regulators must be able to evaluate evidence carefully: neither filling in facts that are not there nor missing facts that are
• Please watch the video carefully. You will be asked to perform a count. This is a very interesting study that some have said might show surprising differences between men and women.

An Experiment
Read the following English paragraph

Aoccdrnig to rscheearch at Cmabrigde Uninervtisy, it deosn't mttaer in waht oredr the ltteers in a wrod are, the olny iprmoetnt tihng is taht the frist and lsat ltteer be at the rghit pclae. The rset can be a toatl mses and you can sitll raed it wouthit a porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe.
• Anche le selle sono belle. Mi pacierebbe arevne un piao. Da mtteremi tra i caepelli. Sraetse sropersi di socpirre qautno sono lonante, perché dvavevro non smebra.
• We miss BIG things
• We construct things

Not so rational...
• Present Bias
• Overconfidence Bias
• Gambler’s Fallacy: Not again

Criminals are people too
• Eugenics
• Likelihood that actuarial methods will calcify prejudice: race, ethnicity
  • Deinstitutionalization
  • California Base Expectancy...

Identification has a rotten history: Cognitive biases
• Captured methodologies
• Europe not immune: Germany Sex Offenders

Identification has a rotten history: Cognitive biases
• Things can be done to make people behave more “rationally”
• A nudge is setting the environment of a choice that will improve the likelihood that the chooser will choose rationally
• To combat over-confidence, require a video... but???

Behavioral Economics: The Nudge
• 1. Economics can tell us the best trade to use, but
• 2. The economic analysis might not have included all important information
• 3. Economists require that everyone be a rational actor, and that is far from the case.
• 4. Nudges? Probably not ...

Where are we?
NEW INCARNATION

- Ecological Rationality
- New Institutional Economics
  - Institutional Environment
  - Institutional Arrangement
- New Institutional Economics Plus
  - Arrangements Reduce Uncertainty
  - Subject to Ecological Rationality

Have we lost economics?
- If risk, then we know probabilities and can know "rational" response
- If uncertainty, then no probabilities — only strategies
  - Rationality is harder to ascertain
  - Strategies need constant revision

Risk or Uncertainty
Should I treat a patient for a particular infection:

**Treat:** 90% will get better, 10% won’t

**Not Treat:** 20% will get better, 80% won’t

Cost of not getting better: 10,000

Cost of treatment: 500

Expected Cost of Treatment: \[.9 \times 0 + .1 \times 10,000 + 500 = 1500\]

Expected Cost of No Treatment: \[0 + .8 \times 10,000 = 8000\]

Decisions Under Risk
Outcomes Given Different Factory Size Choices

<table>
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<th>State of Demand in Nature</th>
<th>High</th>
<th>Med</th>
<th>Low</th>
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<tbody>
<tr>
<td>Large</td>
<td>15</td>
<td>3</td>
<td>-6</td>
</tr>
<tr>
<td>Middle</td>
<td>9</td>
<td>4</td>
<td>-2</td>
</tr>
<tr>
<td>Small</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Go Fishing</td>
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Decisions under Uncertainty
• Ecological Rationality requires that the approach match the limitations of problem information
• Adversaries Holding Hands
• An institution that will be flexible enough to use ecologically rational methodologies

Preventive detention can develop as an institution