Aurélie Ouss, University of Pennsylvania

July 2022

Behavioral Science and Criminal Justice Reform

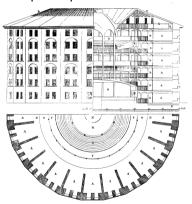
Moral or pyschopathological flaw



Moral or pyschopathological flaw



People respond to incentives



Behavioral Economics offers different insights for crime policy:

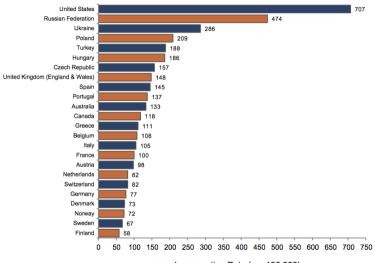
- 1. Deliberate cognition is effortful
- 2. People aren't great at weighing costs and benefits
- 3. Don't follow through on good intentions

Behavioral Economics offers different insights for crime policy:

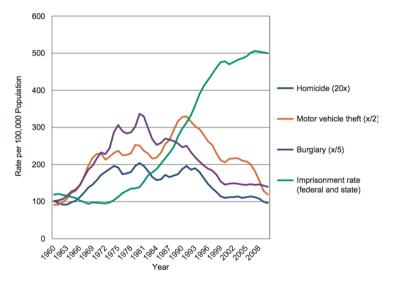
- 1. Deliberate cognition is effortful
- 2. People aren't great at weighing costs and benefits
- 3. Don't follow through on good intentions

Before I go further – specifics on crime policy:

- Not a lot of nudges have been tested, compared to other domains
- Not a lot of replication
- (Maybe) opportunities for quick wins?



Incarceration Rate (per 100,000)



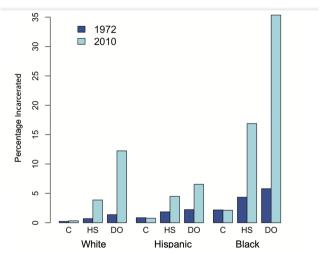
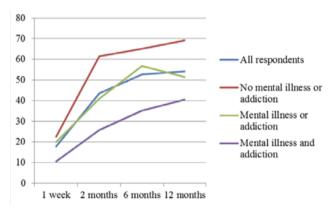


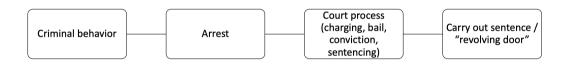
FIGURE 2-15 Prison and jail incarceration rates for men aged 20-39 by education and race/ethnicity, 1972 and 2010.

Source: "The Growth of Incarceration in the United States: Exploring Causes and Consequences." (NAS report)

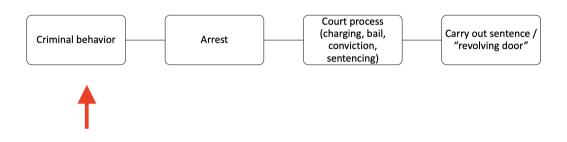


Source: "The Boston Reentry Study: Finding Work After Prison."

### A very simplified flowchart of criminal justice



### A very simplified flowchart of criminal justice



Policies to reduce crime: "How to make crime less attractive?"

### 3 (broad) policy levers:

- 1. The probability of getting caught  $\rightarrow$  more police, cameras...
- 2. The costs of getting caught  $\rightarrow$  longer sentences, fines...
- 3. The value of outside options  $\rightarrow$  better jobs, education...

Key assumption: people actively choose to commit crimes.

What if there is no clear moment of choice?

Illustration 1: failing to appear in court

Current policies:

- Cash bail
- Pretrial detention

Illustration 1: failing to appear in court

Current policies:

- Cash bail
- Pretrial detention

Alternative policy: reminders

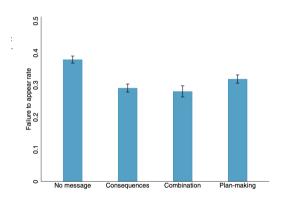
Illustration 1: failing to appear in court

### Current policies:

- Cash bail
- Pretrial detention

### Alternative policy: reminders

• Reduce failures to appear in court (Fishbane, Ouss and Shah, 2020)



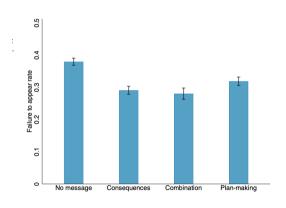
### Illustration 1: failing to appear in court

### Current policies:

- Cash bail
- Pretrial detention

### Alternative policy: reminders

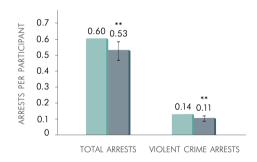
- Reduce failures to appear in court (Fishbane, Ouss and Shah, 2020)
- By contrast: financial incentives don't work (Ouss and Stevenson, 2022)
- → Useful to inform pretrial policy:
  - Simple new policy to scale up
  - Rethinking current approaches



### Illustration 2: reducing automaticity with CBT

### A. BAM, CHICAGO

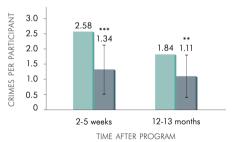
12% ↓ DECLINE IN ARRESTS PER STUDENT BY END OF PROGRAM



(Heller et al, 2020)

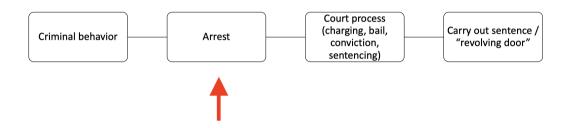
#### B. STYL, LIBERIA

40% | Decline in thefts committed in past two weeks among men who receive both cbt and cash



(Blattman et al, 2020)

### A very simplified flowchart of criminal justice



Long literature on policing and crime

- Most on number of police officers
- Other question: what should they do?
  - Traditional view: ↑ proba(caught)

Long literature on policing and crime

- Most on number of police officers
- Other question: what should they do?

  - Alternative: exploit "symmetry assumption" (Shah and LaForest, 2022)

Long literature on policing and crime

- Most on number of police officers
- Other question: what should they do?

  - Alternative: exploit "symmetry assumption" (Shah and LaForest, 2022)



(Shah and LaForest, 2022)

Long literature on policing and crime

- Most on number of police officers
- Other question: what should they do?
  - Traditional view: ↑ proba(caught)
  - Alternative: exploit "symmetry assumption" (Shah and LaForest, 2022)

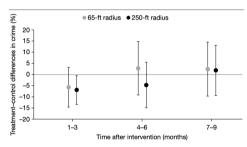


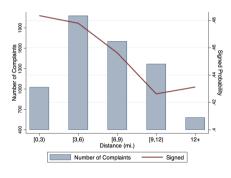
Fig. 1| Treatment-control differences in crime after policing intervention. Providing residents with information about their neighbourhood officers reduced crime near housing developments in the first 3 months after the intervention. Changes in on-campus (grey) and near-campus (black) crimes

(Shah and LaForest, 2022)

Could also help improve police accountability

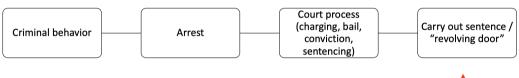
• Hassles reduce complaints (Ba, 2020)

(b) Number of complaints and signed probability by distance



(Ba, 2020)

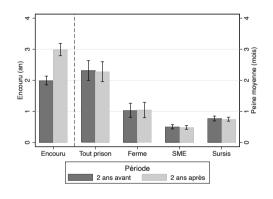
### A very simplified flowchart of criminal justice





## Behavioral science can help inform current criminal justice policies

Reference points in sentencing
(Bushway & Owens, 2013)



(Philippe, 2022)

### Behavioral science can help inform current criminal justice policies

- 1. Reference points in sentencing
  - o (Bushway & Owens, 2013)
- 2. Declining sensitivity to sanction severity

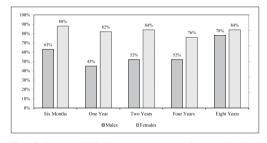
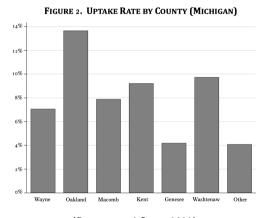


Figure 3. Percentage fearful of serving time in state prison, by sentence length and sex.

(Pickett, 2018)

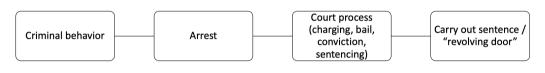
### Behavioral science can help inform current criminal justice policies

- 1. Reference points in sentencing
  - o (Bushway & Owens, 2013)
- 2. Declining sensitivity to sanction severity
- 3. Expungement



(Prescott and Starr, 2020)

### A very simplified flowchart of criminal justice





## Frontiers (1): reducing biases in court decision-making

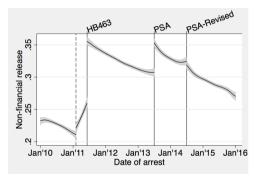
- Lots of evidence that extraneous factors matter
  - Ex: gambler's fallacy, decision fatigue, saliency of recent crimes...
  - Race, ethnicity, sex, socioeconomic status, appearance

## Frontiers (1): reducing biases in court decision-making

- Lots of evidence that extraneous factors matter
  - Ex: gambler's fallacy, decision fatigue, saliency of recent crimes...
  - Race, ethnicity, sex, socioeconomic status, appearance
- Less work on how to reduce biases
  - o Feedback to legal actors?
  - o Algorithmic aid?

### Frontiers (1): reducing biases in court decision-making

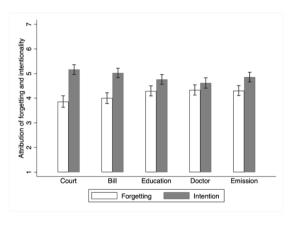
- Lots of evidence that extraneous factors matter
  - Ex: gambler's fallacy, decision fatigue, saliency of recent crimes...
  - Race, ethnicity, sex, socioeconomic status, appearance
- Less work on how to reduce biases
  - o Feedback to legal actors?
  - o Algorithmic aid?
- Question about overall effects
  - o Scale of change?
  - Will it just shift the power?



(Stevenson, 2018)

## Frontiers (2): scale-up and longer-term impacts

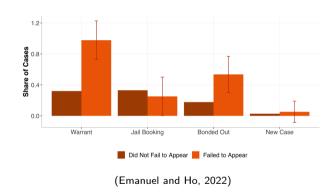
• Barriers to scale-up



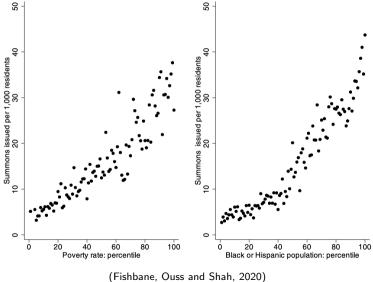
(Fishbane, Ouss and Shah, 2020)

### Frontiers (2): scale-up and longer-term impacts

- Barriers to scale-up
- No effect of pretrial reminders on future criminal justice contacts
  - More impactful for supervision?
  - Or, are changes just to the process?



### Frontiers (3): equity in access



### Frontiers (4): other areas to explore

- 1. Hiring, diversifying and retentaining police (Linos, 2018; Linos et al, 2017)
- 2. Increase crime reporting?
- 3. Fluidify the criminal justice process?
  - Many court dates many non-defendants miss court
  - Feedback across criminal justice agencies?
- 4. Intersection of different policy areas
  - o Poverty and crime?
  - Education and crime?

### References

Ba, Bocar A. "Going the Extra Mile: The Cost of Complaint Filing, Accountability, and Law Enforcement Outcomes in Chicago." (2020).

Blattman, Christopher, Julian C. Jamison, and Margaret Sheridan. "Reducing crime and violence: Experimental evidence from cognitive behavioral therapy in Liberia." American Economic Review 107.4 (2017): 1165-1206.

Bushway, Shawn D., and Emily G. Owens. "Framing punishment: Incarceration, recommended sentences, and recidivism." The Journal of Law and Economics 56.2 (2013): 301-331.

Emanuel, Natalia, and Helen Ho. "Tripping through Hoops: The Effect of Violating Compulsory Government Procedures" Working paper (2022)

Fishbane, Alissa, Aurelie Ouss, and Anuj K. Shah. "Behavioral nudges reduce failure to appear for court." Science 370.6517 (2020): eabb6591.

Heller, Sara B., Anuj K. Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan, and Harold A. Pollack. "Thinking, fast and slow? Some field experiments to reduce crime and dropout in Chicago." "The Quarterly Journal of Economics 132, no. 1 (2017): 1-54.

Linos, Elizabeth. "More than public service: A field experiment on job advertisements and diversity in the police." Journal of Public Administration Research and Theory 28.1 (2018): 67-85.

Linos, Elizabeth, Joanne Reinhard, and Simon Ruda. "Levelling the playing field in police recruitment: Evidence from a field experiment on test performance." Public Administration 95.4 (2017): 943-956.

Ouss, Aurelie and Megan T. Stevenson. "Does cash bail deter misconduct?" Forthcoming at the American Economic Journal: Applied (2022)

Philippe, Arnaud. La Fabrique du Jugement. La Dcouverte (2022).

Prescott, J. J., and Sonja B. Starr. "Expungement of criminal convictions: An empirical study." Harvard Law Review 133.8 (2020): 2460-555. APA

Shah, Anuj K., and Jens Ludwig. "Option Awareness: The psychology of what we consider." American Economic Review 106.5 (2016): 425-29.

Shah, Anuj K., and Michael LaForest. "Knowledge about others reduces one's own sense of anonymity." Nature 603.7900 (2022): 297-301.

Stevenson, Megan. "Assessing risk assessment in action." Minn. L. Rev. 103 (2018): 303.

Travis, Jeremy, Bruce Western, and F. Stevens Redburn. "The growth of incarceration in the United States: Exploring causes and consequences." (2014).

Western, Bruce, Anthony A. Braga, Jaclyn Davis, and Catherine Sirois. "Stress and hardship after prison." American Journal of Sociology 120, no. 5 (2015): 1512-1547.