Implicit Egoism in Sentencing Decisions

First Letter Name Effects with Randomly Assigned Defendants

Daniel L. Chen (IAST)

Ego

Equality **based on recognition of difference**

- Enlightenment and Romantic sides of the modern self
  - ▶ self-knowledge, self-mastery → self-fulfillment
  - ▶ self-realization, distinctive self-expression and authenticity

Among the sources of the modern self—a moral revolution in which "ordinary happiness" was given a positive value in a material world

- Individualism shaped development of the notion of human rights

- Questions of identity became personally significant
  - ▶ refusals of acceptance and respect deeply challenging

- To treat people with dignity and respect
  - ▶ esp. those whose identities have been systematically degraded and whose rights to be treated as equals have been neglected

Charles Taylor, <u>Sources of the Self</u>, 1989; <u>The Ethics of Authenticity</u>, 1992

Identity

Today, **projects of personal identity are as influential as economic self-interest**

- "progressive" forms like the transformation of gender and sexual identities and claims to equal rights
- "conservative" forms like the claims to national and communal identities defended by populist movements

Reinforced by another central theme in modern culture: a value of "authenticity" and "being true to oneself"

- Imagining — we each have an inner essence; selves constituted by our strongest values and commitments

  Authenticity as an orienting ideal

- Everyone has their own way of being human facilitates respect for individuals, but also for different cultures
  - ▶ On the positive side: emphasis on self-esteem
  - ▶ On the negative: microaggression, trigger warnings

Charles Taylor, <u>Sources of the Self</u>, 1989; <u>The Ethics of Authenticity</u>, 1992

Self and Self-deception

Views from outside economics

- Evolution shaped the human brain
  - Adaptations of different modules over millions of years
  - Explains perceptual and cognitive illusions
- Humans tend to think highly of themselves
  - When asked to rate self on virtues, skills, or other desirable traits, most say they are above average
- Therapeutic discourse is that which serves to clarify systematic self-deception

Management of self-image (Grossman 2015; Benabou et al. 2011)

- Moral DM motivated by self-image can bias justice
  - Intentionally (Type II, maybe Type I)
  - Unintentionally (Type I)
  - Indirectly
- Self-image motivations can also positively affect justice

Moral decision-makers applying stigma motivated by self-image can bias justice

Justice: **equal treatment before the law** $(y = f(X) + \varepsilon, a \to X)$
equality based on recognition of difference
$(y \perp W, var(\varepsilon) \perp W, a \not\to W)$

- Intentionally (Type II, maybe Type I)
  - ◄ Decision-Making Under the Gambler's Fallacy: Asylum Courts, Loan Officers, and Baseball
  - ◄ Ideological Perfectionism
  - ◄ Is Ideology Infectious? Polarization and Dissimilation in U.S. Courts of Appeals

- Unintentionally (Type I) - this paper
- Indirectly ("possibility that judges—who profess impartiality—are intentionally biased")
  - ◄ Evolution of the Judiciary: Political Cycles in Judicial Exits
  - ◄ Priming Ideology? Electoral Cycles among U.S. Courts of Appeals Judges
  - ◄ This Morning's Breakfast, Last Night's Game: Detecting Extraneous Factors in Judging
  - ◄ Early Predictability of Asylum Court Decisions
  - ► this dataset

- It can also positively affect justice
  - ◄ Judicial Compliance in District Courts
  - ◄ Effects of Conservative Legal Theories on Economic Jurisprudence

Implicit Egotism

- Unconscious associations that individuals have with others who share their first initials (Nuttin 1985; Nuttin 1987)

  - "Dennis the dentist" (Pelham et al. 2002, 2003)
  - expressive function (e.g., $\preceq$ for brands and products, but not leisure activities and food) (Hodson et al. 2005)
  - attracted to people with similar names (Jones et al. 2004)
  - Hundreds of psychological findings on unconscious self-enhancement (Heider 2013)

- A mainstay of modern psychology textbooks yet has come under criticism

  - unobservable variables may affect both the names people receive as newborns and decisions they make later (Simonsohn 2011)
  - sensitive to ethnic make-up of population (Simonsohn 2011)
  - people start companies may name them after themselves, rather than employees seeking companies with similar names (Simonsohn 2011)
  - apparent name-effects can be due to name frequency (Silberzahn et al. 2014)

- "I personally do believe in the psychological reality of implicit egotism ... given that the effect is of moderate size in the laboratory, settings where people are closer to *indifference* among options are more likely to lead to detectable effects outside of it." (Simonsohn 2011)

Implicit Egotism

- Best prior study (Simonsohn 2011 cites Chandler et al. 2008)
  - Individuals who shared an initial with the hurricane name were overrepresented among hurricane relief donors relative to the baseline distribution of initials in the donor population (N = 7 hurricanes)
    - "decisions over which probably people are nearly *indifferent* (e.g., between giving to Katrina victims or to victims of other disasters)", and psychological factors can influence these close decisions (Simonsohn 2011)

Threatened Egoism

- "when favorable views about oneself are questioned, contradicted, impugned, mocked, challenged or otherwise put in jeopardy" (Baumeister et al. 1996, 1999)
  - following threat, individuals aggress against source of perceived threat (Bushman et al. 1998; Gaertner et al. 2005)
- mechanism for threatened egotism is narcissism (Baumeister 2001)
  - narcissim + insult ⇒ aggression toward the source of the insult
  - strong reluctance to revise self-appraisals downwards
    - with negatively valenced targets, people motivated to manage self-image may socially distance themselves from negative targets associated with the self (Finch and Cialdani 1989)
  - directed anger to avoid a ↓ revision of self-concept (Baumeister et al. 1996)

Data

unique data from the New Orleans District Attorney's Office

- 48,988 defendants that were randomly assigned to 36 judges from 1988-1999 including names
- only dataset of its kind!

    - Anderson, Kling, and Stith 1999; Waldfogel 1991; Mustard 2001; Schanzenbach 2005; Kling 2006; Berube and Green 2007; Green and Winik 2010; Abrams, Bertrand, and Mullainathan 2012; Fischman and Schanzenbach 2012; Nagin and Snodgrass 2012; Loeffler 2013; Tella, Schargrodsky 2013; Yang 2013; Rehavi and Starr 2014; Aizner and Doyle 2015; White 2015; Depew, Eren, and Mocan 2016; Dobbie, Goldin, and Yang 2016

- In January 1988, the Orleans Parish District Attorney established an office-wide computerized system

    - original data stored in 50+ (broken) Microsoft Access files
    - detailed information regarding each individual offender and the corresponding prosecutor and judge
        - social security number
        - victims, witnesses, defense attorneys, charges, police officers, sentencing, and many other topics

'Data Generating Process'
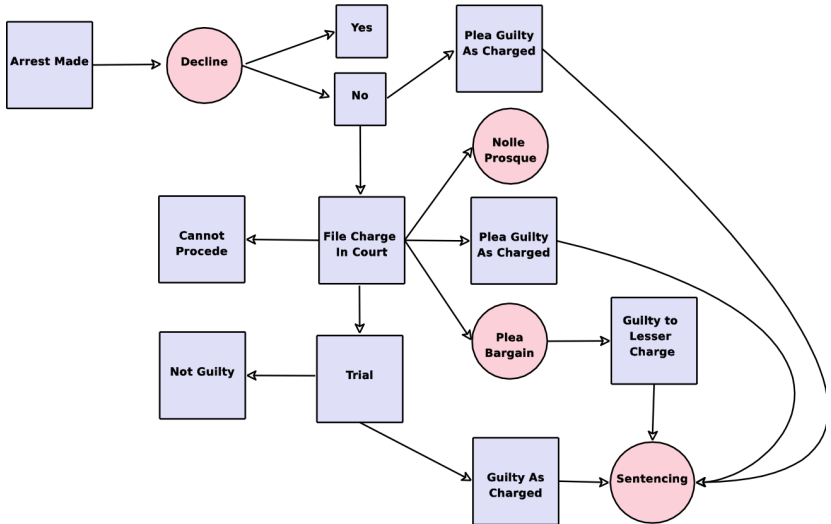
Judge Assignment

- Once at the court, the cases were randomly assigned to a court section by the clerk's office (A-Q).
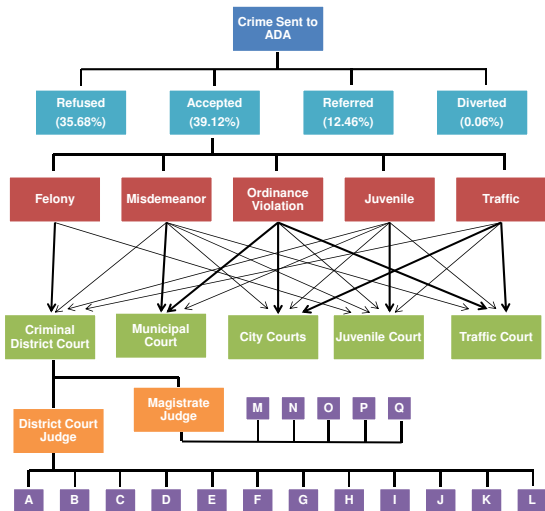
Judge Assignment

- Felony cases must be scheduled randomly to prevent the district attorney from choosing a specific trial judge on the trial day and violating due process requirements. *State v. Simpson*, 551 So. 2d 1303 (La. 1989)

  - "A computer generated random allotment system" (La. Dist. Ct. R. 14.0, Appendix 14.0A) / a "bingo" system

  - "the allotment of cases shall be made **publicly** by classes **daily at noon** by the clerk or a deputy clerk selected by him, in the presence of the district attorney" (1991 La. R.S. 13:1343)

- Cases are classified into one of five classes

  - Random assignment without replacement

    - "Once a judge has been assigned a case from that class, he or she will not receive another assignment until all the other judges in that week's allotment have also received one case from that class."

  - At the start of each week, a small number of judges may be removed from the allotment process (based on vacation or other personal schedule issues)

    - "The eligible judges for the week's allotment determine how many marked balls go into the bingo machine."

Assessment of Random Assignment

- Check that judge characteristics are not correlated with defendant demographic (defendant race, sex, age, etc.) and other case characteristics.
- Judge leniency (a simplified Jackknife IV) and a collection of defendant traits. The judge leniency (Z_{jt}) is constructed as follows:

$$Z_{jt} = \frac{1}{n_{jt} - 1} \left(\sum_{k=1}^{n_{jt}} B_k - B_i \right) - \frac{1}{n_t - 1} \left(\sum_{k=1}^{n_t} B_k - B_i \right)$$

where i denotes an individual case/charge, j denotes the assigned judge, t is the year of observation, n_{jt} is the number of cases seen by a judge in year t, and n_t is the number of cases seen by all judges in year t. For testing judge assignment, B_i is a conviction decision.

Assessment of Random Assignment

- Regression of judge harshness including case class by month-of-sentence fixed effects, judge-level clusters

	(1) JudgeHarsh	(2) JudgeHarsh
criminal_flag	-0.00329	0.000548
	(0.00760)	(0.00410)
dfdn_age	0.000195	0.000213
	(0.000132)	(0.000148)
dfdn_black_hair	0.000882	-0.0000624
	(0.000977)	(0.000749)
dfdn_brown_skin	0.00176	0.00235
	(0.00209)	(0.00131)
dfdn_has_smt	0.00229	0.00234
	(0.00139)	(0.00141)
dfdn_height_feet	-0.00101	0.000136
	(0.000888)	(0.000478)
dfdn_male	-0.000199	0.000525
	(0.000801)	(0.000714)
dfdn_weight	0.0000408	0.0000352*
	(0.0000229)	(0.0000162)
dfdn_white	0.00132	0.000940
	(0.00167)	(0.00136)

Assessment of Random Assignment

- Also assessed random assignment through simulation to compare the empirical distribution of case characteristics like race, sex, sentence length, incarceration rate, etc., to that found in simulated data.

  - ▶ Demographic composition of the judges and defendants and case characteristics of the defendants may change over time, and the simulation would reflect this.
  - ▶ Because of this variation in judge and defendant characteristics over time, it is necessary for the analysis to condition on short times when the random assignment of cases occurs.
  - ▶ A Monte Carlo simulation helps to overcome the finite sample bias because even though the overall sample is large, the sample observations are small within the short time periods that are of relevance.

- All observable case characteristic pairings of judge and defendants remain independent across all times, and we conclude that judges receive the same distribution of unobservable case characteristic such as criminal history, crime severity, etc., as well.

Methods

- Log of 1+total sentence in days

$$SentenceLength_{ij} = F(t) + \alpha_1 \textbf{FirstInitialMatch}_{ij} + \epsilon_{ij} \qquad (1)$$

- **FirstInitialMatch**$_{ij}$, is a dummy indicator for whether the first initial of the defendant and the judge match (6.4%)
- $F(t)$ can include a set of fixed effects for judge (our comparisons are made within-judge), month-of-sentence, case class, case class by month-of-sentence, charge code, and alphabetic identity of the letter
- Some specifications present placebo treatments:
  - whether the second letter of the name matches (15%)
  - whether the last letter of the name matches (10%)
  - randomly re-assigned first letter
- All specifications cluster standard errors at the judge level

Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Log of Total Sentence in Days					
Mean of dep. var.					5.75					
First Letter Match	0.0799**	0.0749*	0.0853**	0.0782**	0.0686**	0.0777**	0.0754**			
	(0.0388)	(0.0383)	(0.0366)	(0.0362)	(0.0315)	(0.0350)	(0.0349)			
Second Letter Match								-0.00494		
								(0.0262)		
Last Letter Match									0.0334	
									(0.0278)	
Resampled First										0.0109
Letter Match										(0.0256)
Judge Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month-Sentence FE		Y	Y	Y	Y	Y	Y	Y	Y	Y
Case Class FE			Y	Y	Y	Y	Y	Y	Y	Y
Case x Month-Sent FE				Y						
Charge Code FE					Y					
Identity of Letter						Y		Y	Y	Y
Name Frequency							Y			
Observations	48988	48988	48860	48860	48860	48860	48860	48859	48860	48860
R-squared	0.303	0.316	0.457	0.470	0.505	0.458	0.458	0.458	0.458	0.457

Testing for Outliers

	(1)	(2)	(3)	(4)	(5)
		Log of Total Sentence in Days			
Mean of dep. var.	5.75	6.27	5.57	5.74	5.72
First Letter Match	0.0853**	0.0454*	0.0865**	0.0811**	0.0741*
	(0.0366)	(0.0260)	(0.0358)	(0.0358)	(0.0388)
Sample Restriction	None	> 0	None	None	< 8
Winsorize	None	None	1%	5%	None
Judge Fixed Effects	Y	Y	Y	Y	Y
Month-Sentence FE	Y	Y	Y	Y	Y
Case Class FE	Y	Y	Y	Y	Y
Observations	48860	44775	48860	48860	46057
R-squared	0.457	0.497	0.458	0.456	0.436

- C1: baseline
- C2: drops sentences of length 0
- C3, C4: winsorize at the 1% and 5% level
- C5: restricts to sentences whose log length is less than 8

Heterogeneity

	(1)	(2)	(3)	(4)	(5)
			Log of Total Sentence in Days		
Mean of dep. var.			5.75		
First Letter Match	0.102**	0.0480	0.0308	0.0864	0.0889*
	(0.0442)	(0.0537)	(0.0930)	(0.0477)	(0.0498)
Defendants Sample:	Negro	Not Negro	Black	All	All
Judges Sample:	All	All	All	Black	White
Judge Fixed Effects	Y	Y	Y	Y	Y
Month-Sentence FE	Y	Y	Y	Y	Y
Case Class FE	Y	Y	Y	Y	Y
Observations	33020	15840	10208	13441	35419
R-squared	0.443	0.492	0.539	0.457	0.462

- C1: effects are more salient for defendants classified (by the office) as Negroes
- C2, C3: effects are small and insignificant for those not classified as Negroes and for those classified as Blacks
- C4, C5: effects are slightly more salient for White judges than for Black judges

Magnitudes
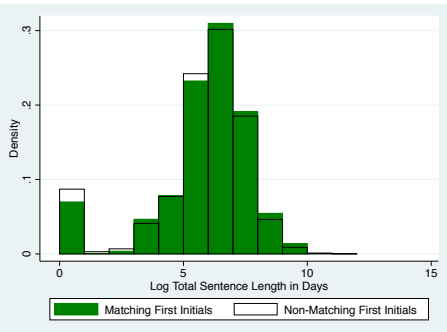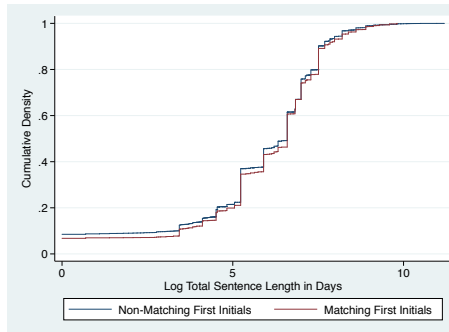
- Effect size of 8% or 2-3 months
    - sentences of 0 and 1 year are less likely
    - unconditional black-white sentence differences $\sim 10\%$ (Rehavi and Starr 2014)
- Explains 0.03% of the variation
    - renders a cautionary question on the metric with which to evaluate the magnitudes of causal effects

Recap

High stakes decision making, if not for the DM, certainly for defendants

- more salient effects when a defendant is classified as "Negro"
  - ▶ impact of emotional shocks on judicial decisions affected minority defendants more (Eren et al. 2016)

If DM more susceptible to behavioral biases when more indifferent to the decision, then highly-trained professionals may also be susceptible to behavioral biases in other situations when indifferent

Causal effects explain a small portion of the overall variation

(but the behavioral response to perceived indifference by a DM is a different question altogether)

Racial Disparities in Criminal Justice

- Perceived legitimacy of lawmaker (Ferguson, Baltimore, Brussels, Nice, etc.)

    - Racial differences in police use of force hotly debated (Fryer 2016)
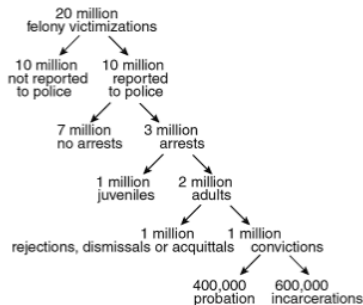
Figure 15.1. Approximate Outcomes of 20,000,000 Felony Victimizations in the United States, 2007

- Significant discretion in *whether* to charge a potential defendant

    - Information about cases dropped by the prosecutor is unavailable
    - Prosecutors largely insulated from public accountability

Racial Disparities in Criminal Justice

- Prosecutors very powerful
  - Prosecutor *charge type* largely explains racial disparities in sentences (Rehavi and Starr 2014)
    - controlling for charge makes racial gap essentially disappear (!)
- Decision to *charge* is equally important
  - Racial gap reappears when timeline pulled back: prosecutorial *screening*
    - decline vast majority due to insufficiency of police evidence
    - 1:15 — felony case a judge presides over in trial : the prosecutor decides the fate of 15 brought by police (eds. Wilson et al 2011)
    - interpretive & discretionary

'Data Generating Process'

Figure 15.1. Approximate Outcomes of 20,000,000 Felony Victimizations in the United States, 2007

- Other datasets are not linked
  - NCVS–victimization only
  - UCR/NBIRS–reports only
  - Fryer 2016–arrests context only
  - NODA–arrests+
  - Random judge assignment studies–conviction/acquittal node only
   - ★ Prior studies examine (and can only examine) final decision node

Random Assignment

- Assessed as before (jackknife leniency & Monte Carlo tests)
- "First, information on the case is received by a set of intake attorneys who routinely process the cases by collecting the potential defendant's rap sheet and other information. Then, once it has been processed, "[a] clerk then receives the file and assigns it to the screening attorney. The 'duty DA' for the day (**rotating duty**) handles everything that arrives on a given day except for the major crimes (such as homicide) assigned to a specialist. For special crimes, the clerk just assigns the case to whoever is next up in the rotation ([for example, a particular homicide prosecutor] receives two out of every five homicide cases, because there are two and a half homicide screeners)."

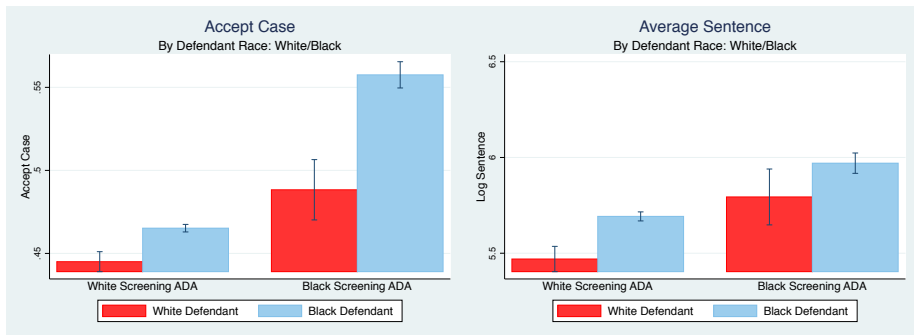# How Prosecutorial Discretion Affects Racial Disparities

1. Screening Increases Racial Gap
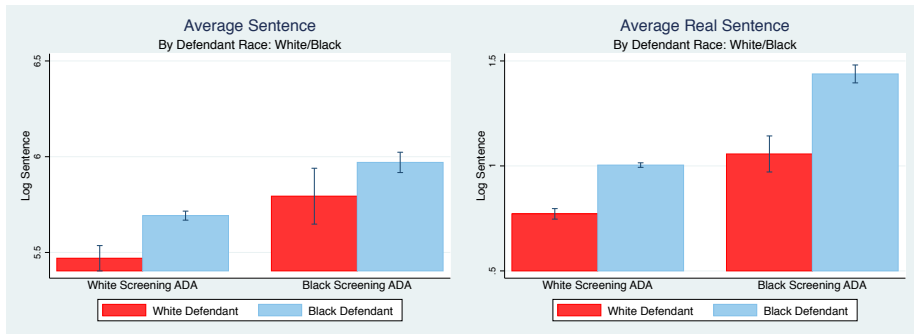
- Since black defendants are less likely to be declined, racial disparity magnifies, regardless of the screener's race
- Effects are quite large in log scale

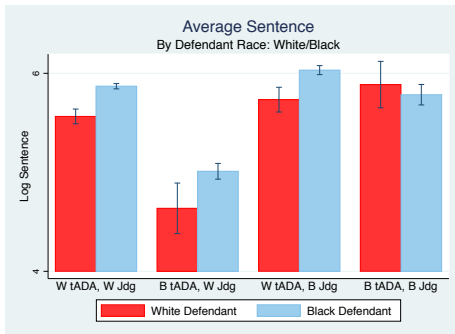## 2. White Screener Cases are Fewer and Leniently Sentenced

- White and black screeners let in different cases
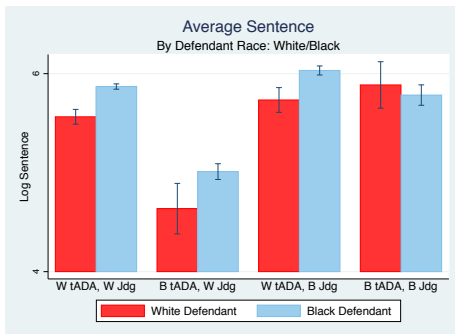
3. White Trial Prosecutors Obtain Longer Sentences

Average Sentence
By Defendant Race: White/Black
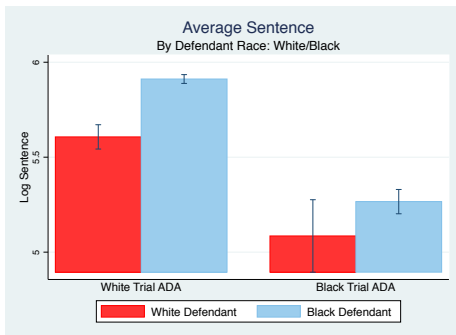
4. Black Trial Prosecutors + White Judges Render Shorter Sentences

Average Sentence
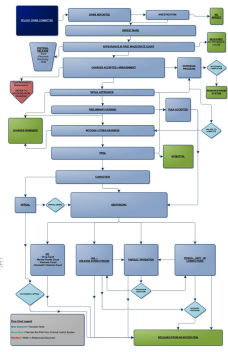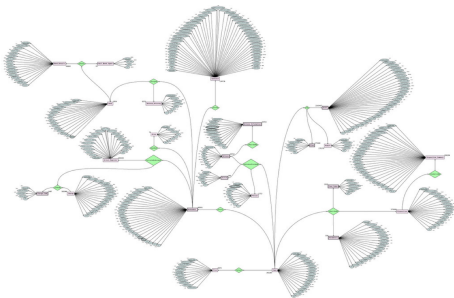By Defendant Race: White/Black

- Effects are quite large in log scale

5. Black Trial Prosecutors + Black Judges Eliminate or Reverse Racial Sentencing Gap

- Hard to explain as statistical discrimination rather than ingroup bias
  - ▶ (ingroup bias by whom is not knowable without benchmark)

Original Dataset

- "skip tracer" to locate public demographic information on prosecutors and judges (including disciplinary actions, etc.) and their SSN
- some data on victims and witnesses

Table A1: Summary Statistics on Referred Crimes

	Black Defendants	White Defendants
Total Number of Cases in Sample	24,315	3,756
Defendant Characteristics		
Age	26.04	30.39
Male	82.35%	76.38%
Screening Attorney Characteristics		
Age	32.04	32.08
Male	64.0%	67.0%
Black	11.5%	14.9%
Republican	23.7%	21.0%
Experience (in years)	4.83	4.77
Trial Attorney Characteristics (conditional)		
Age	29.97	29.84
Male	26.1%	24.4%
Black	6.5%	6.4%
Republican	23.7%	21.0%
Experience (in years)	6.64	6.84
Judge Characteristics (conditional)		
Male	35.4%	33.3%
Black	9.4%	7.5%
Republican	4.7%	6.4%
Case Characteristics		
Sentence (in years) (conditional on conviction)	3.47	2.76
Screening Days	12.72	15.94
Pled Guilty as Charged	70.7%	63.8%
Number of Charges (before screening)	1.72	1.66
Most Severe Charge (in avg. years) (before screening)	2.65	1.95
Number of Prosecution Events	9.43	8.73
Number of Witnesses (conditional on being charged)	0.35	0.34
All Charges Declined	45.5%	49.0%
Convicted (conditional on being charged)	81.6%	74.4%

Conclusion

Theory

- Implicit Egoism (self-image of moral-decision makers matters)
  - Use economic tools to assess empirical basis for psychological phenomenona being questioned
    - priming, gambler's fallacy, name letter effects, duty motivations

Data

- Recent attention to police brutality (Fryer 2016)
  - Prosecutorial discretion is unexamined and important contributor to unequal treatment
    - "the failure to punish everyday aggressions can be an important contributor to black disillusionment"