

Clash of norms Judicial leniency on defendant birthdays

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Introduction

Various norms and institutional mechanisms are designed to limit the influence of extrajudicial factors

- Oaths to uphold duty to be impartial
- Disclosure of conflicts of interest
- Recusal from cases
- Random assignment to prevent forum shopping
- Ethics committees
- Appeals
- Transparency and accountability
- Tenure
- Prohibitions on honoraria, political speeches, campaign donations

Professional norm



- French juror's oath : "You swear and promise to examine with the most scrupulous attention the charges that will be brought against X ..., to betray neither the interests of the defendant neither those of the society that accuses him, nor those of the victim, to communicate with anyone until after your declaration, not to listen to hatred or malice, fear, or affection ; that the accused is presumed innocent and that the doubt must benefit him, to decide you according to the charges and the means of defense, according to your conscience and your intimate conviction, with the impartiality and the firmness which are suitable to an honest man and free, and to keep the secret of the deliberations, even after the cessation of your functions"
- USA judges' oath : "I do solemnly swear that I will administer justice without respect to persons, and do equal right to the poor and to the rich, and that I will faithfully and impartially discharge and perform all the duties incumbent upon me as under the Constitution and laws of the United States. So help me God."

Birthday norm



- Birthdays elicit expectations of favorable treatment for the individual whose birthday it is (Greene et al. 1987).
- Patients expect celebration on their birthday (Phillips et al. 1973).
- Teachers use birthday parties to integrate refugees (Windzio 2015).
- Unmet expectations on birthdays increase suicide (Williams et al. 2011).

Research question

We use birthday as a natural experiment

- 1 the social norm is unambiguous and the event is exogenous
 - 6 million sentencing decisions in France
 - 600,000 sentencing decisions in U.S. federal courts
- 2 strong professional norms intended to mute other norms
- 3 exploit variation in residual norms, when a defendant
 - shows up
 - or has a significant (decade) birthday
 - or shares the same race (in the U.S. data)

Paper in a nutshell

- 1 Balancing check : In France and US
 - Defendant birthdays are uncorrelated with observeables
- 2 Main results : Baseline
 - In France, birthdays reduce by 1% chance to get any sentence
 - In US, birthdays render rounding down in # of sentencing days
- 3 Mechanisms : Some evidence for
 - "exception proves the rule"
 - 1 yr + 1 day is eligible for good behavior reduction
 - larger gifts on special birthdays
 - racial or in-group bias
 - experience does not mute birthday norm, but economics does
 - specific to individuals' birthdays, and not general special days

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Institutional setting : "Tribunaux correctionnels"

- Misdemeanors punishable by up to 10 years - ("d'Ã©lits").
- Across 186 courts, 500,000 judgments per year in aggregate.
- 3 professional judges and one prosecutor ("procureur") per court.
- Begins with judge orally noting identity (and birthday) of defendant.
- Usually decided through trial (limited plea bargaining mechanism).
- No guidelines, only maximum far above pronounced sentences.
- Chance of a trial day matching a birthday is $1/365$ or 0.0027.

Data

- Data from 2002 to 2014

	mean	sd
Sex	.90	.30
Age	33.4	12.3
French	.81	.40
Present at trial	.59	.49
Plea bargaining	.08	.27
Investigation length	310.8	470.3
Time pre trial detention	5.6	45.9
Crime		
property	.21	.41
road	.43	.50
violence	.16	.37
drug	.09	.29
Sentence		
all (dummy)	.54	.50
prison (dummy)	.21	.41
probation (dummy)	.15	.36
suspended prison (dummy)	.24	.43
all (day)	95.7	200.6
prison (day)	43.6	155.0
probation (day)	27.6	91.0
suspended prison (day)	24.5	68.2
Judged on bday	0.0026	0.052
N	6,124,176	

$$\text{Sentence}_{i,t} = \beta_0 + \beta_1 * \mathbb{1}_{\text{bday}=t} + \beta_2 * \mathbb{1}_{|\text{bday}-t|=1} + \beta_3 * \mathbb{1}_{|\text{bday}-t|=2} + X_i + \epsilon_{i,t} \quad (1)$$

With :

- $\text{Sentence}_{i,t}$: sentence pronounced against i at t .
 - Total sentence or its components (prison, probation, or suspended prison); measured in days or threshold dummies.
- Sentence distribution has long tail, so we also winsor top 5% [▶ More](#)
- $\mathbb{1}_{\text{bday}=t}$: judged on birthday
- X_i : control variables.
- β_1 is the parameter of interest, β_2 and β_3 are expected to be 0.

Valid if :

$$E(\epsilon_{i,t} | \mathbb{1}_{\text{bday}=t}) = 0 \quad (2)$$

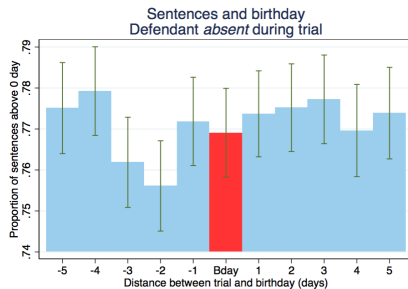
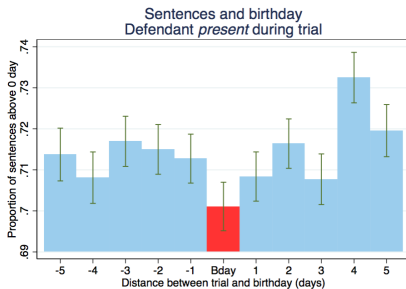
Balancing checks

	(1) Age	(2) French	(3) Sex	(4) Property crimes	(5) Road crimes	(6) Violence	(7) Drug crimes
Panel A : present in court for trial (N=3,597,969)							
Trial on bday	-0.042 (0.12)	-0.00094 (0.0036)	0.0035 (0.0029)	-0.0055 (0.0043)	0.00099 (0.0048)	0.0021 (0.0041)	-0.0011 (0.0029)
1 day before/after	-0.042 (0.087)	0.0068*** (0.0026)	-0.0018 (0.0021)	-0.0036 (0.0031)	0.0034 (0.0035)	0.0034 (0.0030)	0.00016 (0.0021)
2 days before/after	0.0011 (0.088)	0.00057 (0.0026)	-0.00077 (0.0022)	0.00092 (0.0032)	0.0029 (0.0035)	0.0024 (0.0030)	-0.0053*** (0.0021)
Panel B : absent in court for trial (N=1,010,240)							
Trial on bday	0.29 (0.22)	0.0016 (0.0083)	-0.0019 (0.0063)	0.013 (0.0097)	-0.0100 (0.0086)	-0.0047 (0.0073)	0.0061 (0.0053)
1 day before/after	0.092 (0.15)	0.0056 (0.0057)	-0.0030 (0.0044)	-0.0044 (0.0067)	-0.0025 (0.0060)	0.014** (0.0054)	0.0045 (0.0036)
2 days before/after	0.062 (0.15)	0.0029 (0.0058)	-0.0035 (0.0045)	-0.0068 (0.0068)	0.0068 (0.0062)	0.0037 (0.0053)	0.0018 (0.0036)

TABLE: 3 significant out of 42 tests

Graphical evidence (1/4)

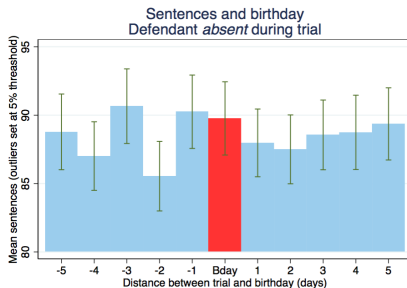
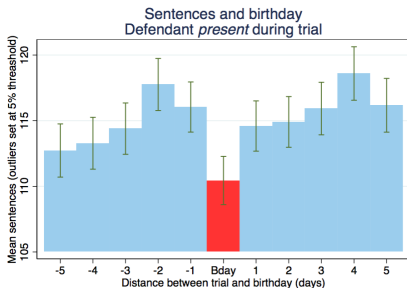
- Probability to get any prison time falls by 1%



- The probability to get some prison seems smaller on birthday...
- ...but only when the defendant is present.

Graphical evidence (2/4)

- Average sentence time
- Winsorize top 5% to threshold value



- Same pattern : smaller sentences on defendant birthdays if present.

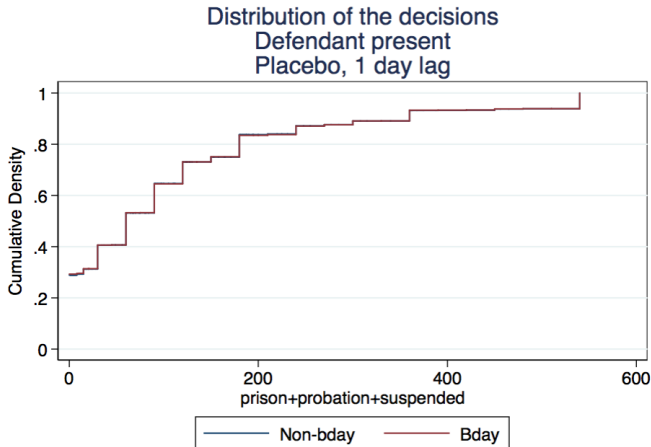
Graphical evidence (3/4)

- Smaller sentences throughout the distribution, not just extremes



Graphical evidence (4/4)

- No Impact throughout the distribution for placebos



Regression analysis

	(1)	(2)	(3)	(4)	(5)	(6)
	Quantum	non 0	Sentences (prison+probation+suspended prison) >3 months	>6 months	>12 months	Quantum, top 5% at threshold
Panel A : present in court for trial (N=3,597,969)						
Decision on bday	-3.59 (2.41)	-0.010** (0.0046)	-0.016*** (0.0048)	-0.011*** (0.0036)	-0.0033 (0.0025)	-4.22*** (1.44)
Decision 1 day before/after	2.28 (1.78)	-0.00082 (0.0033)	0.0056 (0.0035)	0.0038 (0.0027)	-0.0011 (0.0018)	0.66 (1.06)
Decision 2 days before/after	0.96 (1.73)	0.0043 (0.0033)	0.0048 (0.0036)	0.0070** (0.0028)	0.0015 (0.0019)	1.67 (1.08)
Panel B : absent in court for trial (N=1,010,240)						
Decision on bday	2.84 (3.20)	0.0025 (0.0085)	0.0044 (0.0091)	0.012** (0.0058)	0.0016 (0.0029)	1.89 (2.09)
Decision 1 day before/after	3.22 (2.33)	0.0062 (0.0059)	-0.00070 (0.0064)	0.0024 (0.0038)	0.00062 (0.0020)	1.21 (1.43)
Decision 2 days before/after	-2.58 (1.91)	-0.00089 (0.0060)	0.0013 (0.0064)	-0.0029 (0.0038)	-0.0016 (0.0019)	-1.35 (1.40)

- Birthday sentences are shorter throughout the distribution, but only if the defendant is present.
- Results are robust to controlling for case characteristics [▶ More](#)

Decomposition

- We can distinguish between the three components of sentences :
prison, probation, and suspended prison

	(1) non 0	(2) Prison Quantum, top 5% at threshold	(3) non 0	(4) Probation Quantum, top 5% at threshold	(5) non 0	(6) Suspended prison Quantum, top 5% at threshold
Panel A : present in court for trial (N=3,597,969)						
Decision on bday	-0.0056 (0.0043)	-1.39* (0.83)	-0.0060 (0.0043)	-1.20** (0.60)	-0.0042 (0.0046)	-0.56 (0.50)
Decision 1 day before/after	-0.00043 (0.0031)	0.23 (0.61)	0.00036 (0.0031)	0.11 (0.44)	0.00049 (0.0034)	0.55 (0.37)
Decision 2 days before/after	0.0081** (0.0032)	1.47** (0.63)	0.0032 (0.0032)	0.57 (0.45)	-0.0032 (0.0034)	-0.54 (0.37)
Panel B : absent in court for trial (N=1,010,240)						
Decision on bday	0.0069 (0.0098)	1.30 (1.54)	-0.0027 (0.0047)	-0.30 (0.62)	0.0020 (0.0095)	0.053 (1.01)
Decision 1 day before/after	0.011* (0.0069)	1.37 (1.06)	0.0036 (0.0035)	0.58 (0.46)	-0.0067 (0.0066)	-0.82 (0.69)
Decision 2 days before/after	0.012* (0.0069)	0.31 (1.05)	-0.0012 (0.0034)	-0.21 (0.44)	-0.014** (0.0066)	-1.03 (0.70)

- All the coefficients are negative, especially relative to placebo.
- Effect seems driven substantively by prison and probation.

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Institutional setting : United States District Courts

- Federal crimes, which comprise 8% of US prison population
 - Most serious crimes, avg. sentence months = 46 (vs. French 3)
- 94 district courts, 678 judges, 1 randomly assigned per case
- Typically involves immigration, drug trafficking, firearms, and fraud
- Most cases are decided through plea bargaining mechanism
- US Sentencing Commission guidelines : criminal history X crime type
- Eligible for good time credit (54 days per year) if sentenced to more than a year, i.e., to at least one year and one day

Data

- We have data from 1992 to 2011

	mean	sd
Age	35.186	11.553
Male	.851	.356
US citizen	.703	.457
White	.348	.476
Hispanic	.268	.443
Black	.345	.476
No educ	.433	.495
Single	.401	.49
Crime		
drug	.413	.492
violence	.1	.301
property	.287	.452
Trial	.073	.26
Prison month	45.868	64.402
Prison days	.364	2.404
Decision on bday	.003	.053
N	602,908	

$$Sentence_{i,t} = \beta_0 + \beta_1 * \mathbb{1}_{bday=t} + \beta_2 * \mathbb{1}_{|bday-t|=1} + \beta_3 * \mathbb{1}_{|bday-t|=2} + X_i + \epsilon_{i,t} \quad (3)$$

With :

- $Sentence_{i,t}$: sentence pronounced against i at t .
 - Guideline departure, months, or days ($\#$ or threshold 1/0)
- $\mathbb{1}_{bday=t}$: judged on birthday
- X_i : control variables.
- β_1 is the parameter of interest, β_2 and β_3 are expected to be 0.

Valid if :

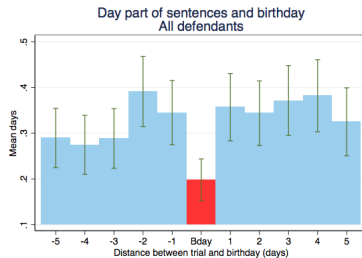
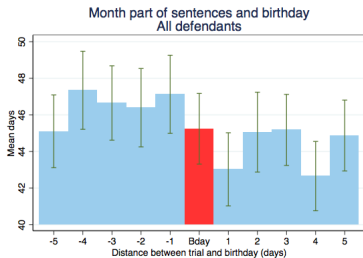
$$E(\epsilon_{i,t} | \mathbb{1}_{bday=t}) = 0 \quad (4)$$

Balancing checks : 1 significant out of 36 tests

	(1) Age	(2) Male	(3) US cit	(4) White	(5) Hispanic	(6) Black
Decision on bday	-0.214 (0.268)	-0.00212 (0.00873)	0.00499 (0.0112)	-0.0133 (0.0116)	0.00261 (0.0109)	0.00316 (0.0117)
Decision 1 day before/after	-0.0644 (0.187)	4.20e-05 (0.00621)	-0.00355 (0.00812)	0.00835 (0.00842)	-0.00442 (0.00775)	-0.00435 (0.00834)
Decision 2 days before/after	-0.236 (0.191)	-0.0159** (0.00644)	0.00636 (0.00800)	0.00283 (0.00835)	0.00783 (0.00781)	-0.0115 (0.00825)
Constant	35.19*** (0.0150)	0.851*** (0.000462)	0.703*** (0.000602)	0.348*** (0.000623)	0.267*** (0.000579)	0.346*** (0.000622)
Observations	602,894	602,216	585,294	593,337	593,337	593,337

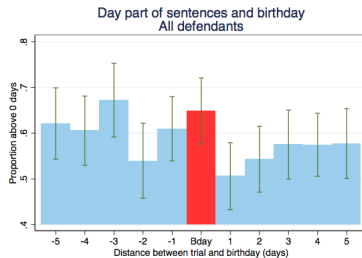
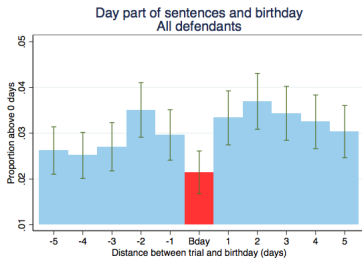
	(1) No educ	(2) Single	(3) Trial	(4) drug	(5) violence	(6) property
Decision on bday	-0.00280 (0.0125)	-0.00776 (0.0173)	-0.00262 (0.00624)	0.00206 (0.0120)	0.00197 (0.00739)	-0.00664 (0.0109)
Decision 1 day before/after	-0.00361 (0.00890)	-0.0130 (0.0127)	-0.00703 (0.00434)	-0.0116 (0.00856)	-0.00474 (0.00514)	0.00929 (0.00797)
Decision 2 days before/after	0.00379 (0.00887)	-0.0132 (0.0124)	0.00120 (0.00455)	-0.00269 (0.00854)	-0.000732 (0.00520)	0.00472 (0.00789)
Constant	0.433*** (0.000663)	0.401*** (0.000930)	0.0731*** (0.000338)	0.413*** (0.000638)	0.101*** (0.000390)	0.287*** (0.000587)
Observations	565,543	281,229	602,908	602,908	602,908	602,908

Graphical evidence (1/2)



- The month part does not seem to be affected
- The day part seems affected

Graphical evidence (2/2)



- Less chances to get a day part on birthday...
- ... except if the month part equal to 12.

Regression results (I)

	(1) Downward dep from guideline	(2) Month component	(3) Prison Day component	(4) Day > 0
Decision on bday	0.0039 (0.012)	-0.62 (1.51)	-0.17*** (0.036)	-0.0081 (0.0053)
Decision 1 day before/after	0.012 (0.0089)	-0.77 (1.14)	-0.016 (0.040)	0.00014 (0.0041)
Decision 2 days before/after	0.0016 (0.0088)	-0.14 (1.19)	0.00062 (0.041)	0.00069 (0.0041)
Control	No	No	No	No
Constant	0.39***	45.87***	0.365***	0.0573***
Observations	558,261	593,233	596,162	596,162

- No effect on months, significant effect on the day part
- Results robust to case controls or judges fixed effects

[▶ More](#)

Main results (II)

- 12 months plus one day is more lenient than 12 months.

	(1)	(2)	(3)	(4)
	Day, wo 12m sent	Day, 12m only	Prison Day >0 wo 12m sent	Day >0 12m only
Decision on bday	-0.18*** (0.037)	-0.0053 (0.056)	-0.011*** (0.0036)	0.077 (0.056)
Decision 1 day before/after	-0.018 (0.041)	-0.0018 (0.10)	-0.0013 (0.0032)	-0.012 (0.039)
Decision 2 days before/after	0.00041 (0.042)	0.020 (0.14)	0.0033 (0.0033)	-0.030 (0.042)
Control	No	No	No	No
Constant	0.351***	0.654***	0.0326***	0.571***
Observations	568,889	27,273	568,889	27,273

- Results are stronger when 12 months sentences are excluded.
- On 12 mo. sub-sample, the effect seems to go in the other direction.
- Results robust to case controls or judges fixed effects [▶ More](#)

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In-group bias / Racial bias

- Is the birthday gift dependent on judges' and/or defendants' race?
- Could only be tested in the US.

Judge's race Defendant's race	(1)	(2) Day component, excluding 12 months sentences		(4)	(5)	(6)
	White	White Black	Latino	White	Black	Latino
Decision on bday	-0.079*** (0.011)	-0.0064 (0.040)	-0.19 (0.12)	-0.13*** (0.017)	-0.062*** (0.012)	-0.36*** (0.045)
Decision 1 day before/after	0.0015 (0.061)	0.00017 (0.051)	0.12 (0.18)	-0.13*** (0.017)	0.35 (0.41)	-0.13 (0.19)
Decision 2 days before/after	0.11 (0.11)	-0.051*** (0.0075)	0.083 (0.16)	-0.13*** (0.017)	-0.036 (0.028)	0.53 (0.40)
Constant	0.092***	0.060***	0.31***	0.13***	0.062***	0.40***
Observations	48,776	40,466	43,677	7,250	6,685	16,504

- White judges are more lenient on bday only if defendant is white.
- Picture is less clear with black judges because of small sample sizes
- Interpretation? Discrimination against minorities? In-group bias?
- Female judges more forgiving [▶ More](#)

Judges' experience and training

- Is the leniency on birthday dependent on judges' characteristics?
 - Judicial experience does not mute the birthday norm...
 - but economics does (measured in their writing in civil cases).

	(1)	(2)	(3)	(4)
	Tenure > median	Day component, excluding 12 months sentences Tenure < median	Use econ related words	Don't use econ related words
Decision on bday	-0.13*** (0.025)	-0.11* (0.057)	-0.043 (0.065)	-0.19*** (0.0086)
Decision 1 day before/after	0.12 (0.099)	-0.075 (0.051)	0.037 (0.074)	-0.0056 (0.081)
Decision 2 days before/after	0.17 (0.12)	0.010 (0.069)	0.037 (0.073)	0.13 (0.11)
Constant	0.18***	0.17***	0.14***	0.20***
Observations	82,194	88,578	84,089	83,315

Special birthday

- Birthdays of multiples of 5 often considered as more important.
- Is the gift bigger on those birthdays?

Outcome Sample	(1)	(2)	(3)	(4)
	France, present at sentence Sentences > 0		USA, excluding 12 months sentences Day component > 0	
	Special birthday	Normal birthday	Special birthday	Normal birthday
Decision on bday	-0.0225** (0.0104)	-0.00721 (0.00516)	-0.19** (0.075)	-0.17*** (0.042)
Decision 1 day before/after	0.00550 (0.00720)	-0.00249 (0.00373)	-0.11 (0.085)	0.0043 (0.047)
Decision 2 days before/after	0.00878 (0.00714)	0.00310 (0.00378)	0.035 (0.10)	-0.0077 (0.046)
Constant	0.710***	0.712***	0.35***	0.35***
Observations	738,571	2,859,398	114,854	450,719

- Judge leniency seems bigger on multiple of 5 but only in France

Heterogeneity (1/2)

	(1) Drug	(2) Violence	(3) Property	(4) Road related offenses
Panel A. France; outcome : sentence >0; restriction : present at trial				
Decision on bday	-0.0375** (0.0148)	-0.00168 (0.0108)	0.0104 (0.00985)	-0.0149* (0.00838)
Decision 1 day before/after	0.0128 (0.00981)	0.00371 (0.00757)	0.00326 (0.00714)	-0.00972 (0.00601)
Decision 2 days before/after	0.0201** (0.0101)	0.00869 (0.00779)	0.00901 (0.00709)	0.00232 (0.00607)
Constant	0.785***	0.830***	0.781***	0.649***
Observations	320,378	449,087	649,760	1,206,459
Panel B. USA; outcome : day component; restriction : 12m sent excluded				
Decision on bday	-0.094 (0.073)	-0.078 (0.12)	-0.17* (0.098)	
Decision 1 day before/after	-0.035 (0.053)	0.21** (0.088)	-0.0052 (0.068)	
Decision 2 days before/after	-0.026 (0.052)	-0.015 (0.085)	0.047 (0.068)	
Constant	0.20***	0.14***	0.26***	
Observations	235,755	57,717	162,523	

- Judges more lenient on birthday for crimes perceived as less severe?

Heterogeneity (2/2)

	(1) Male	(2) Female	(3) Citizen	(4) Non citizen	(5) No education	(6) Some education
Panel A. France; outcome : sentence >0; restriction : present at trial						
Decision on bday	-0.0121** (0.00481)	0.00503 (0.0161)	-0.0104** (0.00505)	-0.0101 (0.0113)		
Decision 1 day before/after	-0.00348 (0.00346)	0.0261** (0.0112)	-0.00188 (0.00361)	0.00769 (0.00823)		
Decision 2 days before/after	0.00520 (0.00348)	-0.00379 (0.0116)	0.00352 (0.00365)	0.00894 (0.00816)		
Constant	0.718***	0.645***	0.704***	0.752***		
Observations	3,265,397	332,572	3,056,242	541,727		
Panel B. USA; outcome : day component; restriction : 12m sent excluded						
Decision on bday	-0.18*** (0.066)	-0.14 (0.16)	-0.067 (0.048)	-0.38** (0.17)	-0.17 (0.11)	-0.11* (0.066)
Decision 1 day before/after	0.0072 (0.048)	-0.15 (0.12)	0.0011 (0.035)	-0.082 (0.12)	-0.078 (0.077)	0.043 (0.047)
Decision 2 days before/after	-0.025 (0.048)	0.13 (0.11)	0.015 (0.035)	0.022 (0.12)	0.074 (0.075)	-0.0044 (0.047)
Constant	0.34***	0.38***	0.16***	0.78***	0.42***	0.22***
Observations	483,807	84,180	390,318	162,001	230,243	303,710

- Defendants' characteristics seem to not matter (apart from race).

Effect of norm at the group level

- What is the effect of norms at the group level ?
- Difficult to use the norms of the dominant group because of holidays etc.

	(1)	(2)	(3)	(4)
	Quantum (prison+probation+suspended), with top 5% at threshold			
Womens' day	-7.335*	-4.855***	-5.051***	
	(4.446)	(1.367)	(1.341)	
Women	29.23***			
	(0.258)			
Womens' day*	2.605			
Women	(4.663)			
Domestic violences		19.06***		
		(0.408)		
Womens' day*		-0.547		
Domestic violences		(7.427)		
Sexual crimes			163.8***	
			(0.574)	
Womens' day*			14.08	
Sexual crimes			(10.42)	
Maghrebi				16.18***
				(0.354)
$Ai_i \frac{1}{2} d$				-1.219
				(1.364)
$Ai_i \frac{1}{2} d * \text{Maghrebi}$				0.685
				(6.617)
Constant	86.26***	112.1***	110.0***	112.0***
Observations	3,734,123	3,734,123	3,734,123	3,734,123

Conclusion

Clash of unambiguous norms

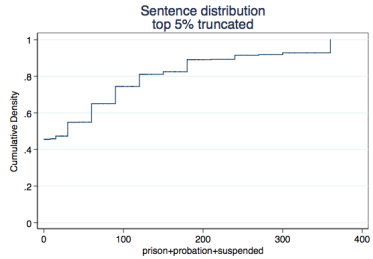
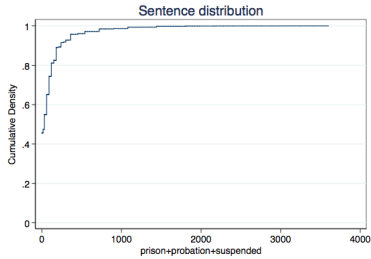
- professional norms intended to destroy other norms
- societal norms of generosity and gift-giving on birthdays

Two large datasets of 6 M+ decisions in France and US

- 1 Substantial birthday effects (1% chance of any prison)
- 2 Ingroup / racial bias
- 3 Intentionality (rounding up at 12 mo for de facto leniency)
- 4 Individual-specific
- 5 Amplified with norms like showing up, significant birthdays

Next step

- Find other context ?



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Robustness check

- Control for crime (1809 dummies), sex, nationality, investigation length, pre-trial detention.

	(1) Quantum	(2) non 0	(3) >3 months	(4) Quantum, top 5% at threshold
Panel A : present in court for trial (N=3,597,969)				
Decision on bday	-0.26 (1.69)	-0.0059 (0.0043)	-0.011*** (0.0041)	-2.00* (1.09)
Decision 1 day before/after	1.45 (1.27)	-0.0014 (0.0031)	0.0055* (0.0030)	0.38 (0.80)
Decision 2 days before/after	1.18 (1.24)	0.0042 (0.0031)	0.0057* (0.0030)	1.82** (0.82)
Panel B : absent in court for trial (N=1,010,240)				
Decision on bday	1.23 (2.73)	0.0057 (0.0080)	0.0030 (0.0085)	1.11 (1.81)
Decision 1 day before/after	4.00** (2.01)	0.0086 (0.0055)	0.00067 (0.0058)	1.90 (1.22)
Decision 2 days before/after	-2.25 (1.59)	0.0015 (0.0057)	0.0054 (0.0060)	-0.34 (1.20)

Robustness check

	(1)	(2)	(3)	(4)	(5)	(6)
	Day component	Day, wo 12m sent	Day, 12m only	Prison Day >0	Day >0 wo 12m sent	Day >0 12m only
Panel A : control for case and defendant characteristics						
Decision on bday	-0.13*** (0.036)	-0.13*** (0.037)	-0.018 (0.056)	-0.00534 (0.00540)	-0.0079** (0.0037)	0.050 (0.054)
Decision 1 day before/after	-0.015 (0.038)	-0.017 (0.040)	0.016 (0.10)	0.000965 (0.00409)	-0.00084 (0.0031)	-0.013 (0.033)
Decision 2 days before/after	0.027 (0.040)	0.026 (0.041)	0.035 (0.14)	0.00317 (0.00413)	0.0049 (0.0033)	-0.017 (0.036)
Observations	596,162	568,889	27,273	596,162	568,889	27,273
Panel B : control for judge fixed effects						
Decision on bday	-0.11*** (0.033)	-0.11*** (0.034)	0.041 (0.10)	-0.0055 (0.0086)	-0.0038 (0.0052)	0.048 (0.10)
Decision 1 day before/after	0.023 (0.053)	0.024 (0.055)	-0.013 (0.069)	0.0044 (0.0072)	0.0033 (0.0049)	0.0094 (0.068)
Decision 2 days before/after	0.091 (0.064)	0.096 (0.066)	-0.0095 (0.083)	0.0069 (0.0070)	0.0078 (0.0051)	0.066 (0.067)
Observations	178,830	170,772	8,058	178,830	170,772	8,058

In-group bias / Racial bias

Judge's gender Defendant's gender	(1)	(2)	(3)	(4)
	Day component, excluding 12 months sentences			
	Woman		Man	
	Woman	Man	Woman	Man
Decision on bday	-0.038*** (0.0030)	-0.016*** (0.00080)	0.0037 (0.025)	-0.0044 (0.0056)
Decision 1 day before/after	-0.038*** (0.0030)	0.011 (0.015)	0.0095 (0.020)	0.0013 (0.0051)
Decision 2 days before/after	0.012 (0.049)	-0.0015 (0.0100)	0.018 (0.020)	0.0050 (0.0055)
Constant	0.038***	0.016***	0.040***	0.016***
Observations	4,015	24,769	19,799	124,206

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