SUPPLEMENTARY MATERIAL

CAN TRANSITIONAL JUSTICE IMPROVE THE QUALITY OF REPRESENTATION IN NEW DEMOCRACIES?

By Milena Ang and Monica Nalepa

World Politics

doi: 10.1017/S0043887119000066

Replication data are available at:

Ang, Milena, and Monika Nalepa. 2019.Replication files for: "Can Transitional Justice Improve the Quality of Representation in New Democracies?" Harvard Dataverse, V1. doi: 10.7910/DVN/XC4E1I.

Appendix: Can Transitional Justice Improve the Quality of Representation in New Democracies?

Milena Ang
The University of Chicago

Monika Nalepa
The University of Chicago

Appendix A: Equilibrium Analysis of the Formal Model

A.1 Equilibrium Analysis of the Formal Model

We first will verify the plausibility of the pure separating equilibrium in which all agents equipped with evidence choose a different strategy from all agents not equipped with such evidence.

A.1.1 Pure separating equilibrium

Since it is never rational for O not to make a demand when he has evidence against the Politician,[1] the only possible separating equilibrium is: $(D, R, ND; x^*)$. The requirement for this to be a Bayesian equilibrium is that the posterior beliefs are $Pr(E|ND) = 0, Pr(\sim E|ND) = 1, Pr(E|D) = 1, Pr(\sim E|D) = 0$. The following five steps will lead to uncovering the conditions for this equilibrium.

1. First, suppose x^* is the proposal accepted in equilibrium. P knows that if he proposes $x < x^*$, his skeletons will be exposed with certainty. Therefore, on the one hand, if he is going make a proposal, in equilibrium, it must be accepted, because if it were to be rejected P should propose $x = 0$. On the other hand, if a demand is placed and P makes a counteroffer $x \neq 0$, P's utility must be greater from having his proposal accepted than from having it rejected, i.e.,

   $EU_P(x^*|D, ND) \geq EU_P(0|D, ND)$, which is equivalent to $-(x^*)^2 \geq -0 - F$. The last expression simplifies to

   $$x^* \leq \sqrt{F}$$

2. Second, note, that the lowest x^* that P is willing to accept is $x^* = \sqrt{F}$. Therefore, O's optimal rejection region is $R = [0, \sqrt{F})$

3. Third, note that to prevent O from bluffing (and making demands when there is no evidence), it has to be the case that that $EU_O(D|x^*, \sim E) \leq EU_A(ND|x^*, \sim E)$, which is equivalent to $-(a - x^*)^2 - c \leq -|-(a)^2|$. This last expression simplifies to $x^{*2} + 2ax^* - c \leq 0$,

4. Fourth, since the expression on the RHS is a quadratic expression, we have to solve for the inequality by applying the quadratic formula to $x^{*2} + 2ax^* - c = 0$ to identify $x_1^* = a - \sqrt{a^2 - c}$ and $x_2^* = a + \sqrt{a^2 - c}$. Because the counterproposal must be in $[0, a]$, x_2^* is eliminated and x_1^* is not, by virtue of our assumption from above, $c < a^2$.

5. This leads to $x^* \leq a - \sqrt{a^2 - c}$ which after substituting for x^* reduces to

   $$F \leq (a - \sqrt{a^2 - c})^2$$

[1] Note that P cannot make a counterproposal x unless O has made a demand. Thus, the worst O can do when making a demand is $-|a - d|$, which would be his payoff if P's counterproposal were $x = a$, that is if P made no concession at all. But without making any demand O is guaranteed to receive $-(a)^2$ and no more.

We conclude that a pure separating equilibrium exists only when the cost of having skeletons revealed (F) relative to the cost of bluffing c is quite low. In this pure separating equilibrium, blackmail is effective with probability π and the average democratic misrepresentation is proportional to the cost of having skeletons in the closet exposed. In the next two sections, we show how this departure from programmatic representation compares with the effectiveness of blackmail under the pure pooling and semi-separating equilibria.

A.1.2 Pure pooling equilibrium

In pooling equilibria, officers with and without evidence will choose the same action, implying that the Politician cannot update his prior beliefs to posterior beliefs by conditioning on the agent's action. In the analysis above, we established that the Officer will never refuse to place a demand when evidence is present. Thus, the only possibility of a pooling equilibrium in this game is $(D, R, D; x'')$ with accompanying beliefs: $Pr(E|D) = \pi, Pr(\sim E|D) = (1-\pi)$. [2] In this equilibrium, the Officer always places a demand and the the Politician always offers the same counterproposal, x''. We complete the derivation in four steps:

1. For such an equilibrium to hold, the dissident has to prefer to have his proposal accepted to having skeletons in the closet revealed (in which case, he would simply propose his ideal point, 0). Thus, it must be the case that $EU_D(x'|D, D) \geq EU_D(0|D, D)$, which is equivalent to $-(x')^2 \geq \pi(-0-F)+(1-\pi)*0$.[3] The last expression simplifies to:
$$x' \leq \sqrt{\pi F}$$

2. Since $x' = \sqrt{\pi F}$ is the highest proposal the Politician will accept, given his beliefs, the Officer's optimal rejection region is $[0, \sqrt{\pi F}]$.

3. To ensure the Officer always has an incentive to place a demand, it has to be the case that $EU_A(D|x', \sim E) \geq EU_A(ND|x', \sim E)$, which is equivalent to $-(a-x')^2 - c \geq -(a)^2$. This last expression simplifies to $x' \geq a - \sqrt{a^2 - c}$ (using the solution to the quadratic formula from above, except with the sign on the quadratic coefficient flipped).

4. Substituting for x', we arrive at:
$$F \geq \frac{(a - \sqrt{a^2 - c})^2}{\pi}.$$

Summing up, a pure pooling equilibrium exists only when the cost of having skeletons revealed (F) relative to the cost of bluffing c is quite high. Equivalently, we can also state:

$$\pi \geq \frac{(a - \sqrt{a^2 - c})^2}{F}.$$

The second expression shows that the pooling equilibrium is more likely for higher values of π, which correspond to systems with less severe lustration. In this pure pooling equilibrium, blackmail is always effective (takes place with probability 1). The distortion it causes relative to the Politician's ideal point and is $\sqrt{\pi F}$. It is proportional to the cost of firing and the extent to which evidence exists. Our final subsection of the equilibrium analysis looks at the effectiveness of blackmail with secret police files under the semi-pooling (hybrid) equilibrium.

---

[2] Note that paths that involve the Officer not making a demand are off the equilibrium path and we do not have to specify the beliefs there, because they can be anything at all. However, for completeness' sake, we can just assume that if the Officer does not make a demand, the Politician knows with certainty that he is dealing with an Officer without evidence.

[3] Note that since the Politician cannot tell which type—with or without evidence—he is facing any better than he could before the Officer took an action, his expected utility from making a proposal outside of the acceptance region is weighted by his priors about the probability that evidence exists.

A.1.3 Semi-separating equilibrium

In addition to the pure separating equilibrium discussed above, we also derive the conditions (and verify their plausibility) of a semi-separating (or semi-pooling or hybrid) equilibrium. In this equilibrium, the Officer plays a mixed strategy. He always makes a demand when evidence is present, but he also with some probability λ makes a demand if evidence does not exist (and with probability $1-\lambda$ does not make a demand). Consequently, any semi-separating equilibrium must fit the format $(D, R, \lambda; x'')$.[4] Note the beliefs consistent with this semi-separating equilibrium, found using Bayes rule, are: $Pr(E|ND) = 0, Pr(\sim E|D) = \frac{\lambda(1-\pi)}{\pi+\lambda(1-\pi)}, Pr(\sim E|ND) = 1-\lambda, Pr(E|D) = \frac{\pi}{\pi+\lambda(1-\pi)}$. The calculation of conditions for which this equilibrium obtains proceeds in six steps:

1. First, to find the equilibrium value of λ^*, we calculate the expected utility of the Politician from responding x'' to the Officer's demand ($EU_D(x''|D, \lambda)$) and set it equal to the expected utility of the dissident's choosing his ideal point, 0, which is outside of the Officer's acceptance region, $EU_D(0|D, \lambda)$ This yields the equality $\pi(-(x'')^2) + (1-\pi)\lambda(-(x'')^2) + 0 = -\pi F$, leading to:

$$\lambda = \frac{-\pi F + \pi(x'')^2}{(1-\pi)[-(x'')^2]} = \frac{\pi(F-(x'')^2)}{(1-\pi)(x'')^2} \tag{1}$$

2. To ensure that $0 < \lambda < 1$ and is a probability we need:

$$-(x')^2 < F \tag{2}$$

and

$$\frac{\pi F - \pi(x'')^2}{(i-\pi)(x'')^2} < 1 \tag{3}$$

, which simplifies to $F < \frac{(x'')^2}{\pi}$.

3. Next, to pin down x'', we make use of the fact that when evidence does not exist, O must be indifferent between placing a demand and not placing one, i.e.: $EU_O(D|x'', \sim E) = EU_A(ND|x'', \sim E)$, which reduces to: $-(a)^2 = -(a-x'')^2 - c$. This last quadratic equality is solved again using the familiar quadratic formula, where we obtain just $x''_1 = a + \sqrt{a^2-c}$, which does not satisfy the constraint on the counterproposal $0 < x < a$ and $x''_2 = a - \sqrt{a^2-c}$, which does.

4. Finally, substituting x' into equation 6, we arrive at:

$$\lambda = \frac{\pi(F-(a-\sqrt{a^2-c}))}{(1-\pi)c} \tag{4}$$

5. And to ensure the λ is a probability, we will need (by substituting x'' into 7:

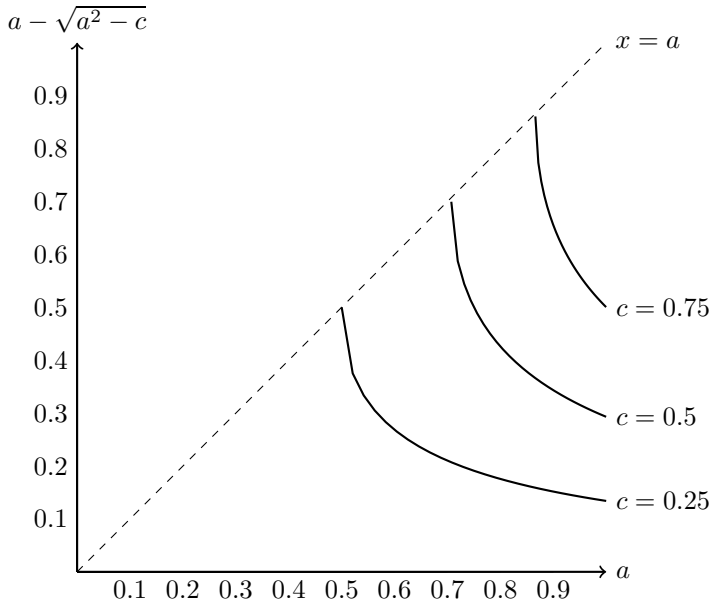
$$(a-\sqrt{a^2-c})^2 < F < \frac{(a-\sqrt{a^2-c})^2}{\pi} \tag{5}$$

6. Given the condition above, note that the game only has a semi pooling equilibrium if the set of F's satisfying condition defined in 5 is non-empty.

The figure below can aid our interpretation of these results. First, Figure a shows how the requirement that $c < a^2$ affects the equilibrium counterproposals in the the semi-pooling equilibrium and the cutoffs between the separating and pooling equilibrium. This cutoff is relevant for determining for which parameter values lustration works "as it ought to" according to the normative forward looking argument. We see that as a increases, the cutoff between the separating and pooling equilibrium shifts down, making the separating equilibrium less likely. This leads us to the prediction that as the distance between the Politician and Officer increases, the quality of representation goes down, a result consistent with our empirical findings.

[4]This means that the Politician makes a demand with probability 1 if evidence exists and with probability λ if evidence does not exist.

Figure a: Constraints on c and a ensuring that the counterproposal x falls between 0 and a (also can be interpreted as how a affects the possibility of the separating equilibrium.



Appendix B: Extension: model with linear loss functions

In this extension, the players and strategies remain the same as above, but payoffs are a linear function of the Euclidean distance between the players' respective ideal points and implemented policy as well as the two types of costs characterized above: (1) the cost to the politician of being fired as a result of revealing skeletons in his closet; and (2) the cost of bluffing incurred by the officer if he makes an empty threat. Below is the equivalent of Proposition 1 from the main text, except for linear loss functions to model utility:

Proposition 1

1. Suppose $F < c$. There is a pure separating Perfect Bayesian Equilibrium in which the Officer makes a demand if and only if evidence exists and in response, the Politician makes a counteroffer $x^* \equiv F$. The officer's rejection region in this equilibrium is defined by $R^* \equiv (0, F)$, so he accepts the counteroffer and does not reveal the evidence in his possession. The posterior beliefs of P are described by $Pr(E|no\ demand) = 0, Pr(\neg E|no\ demand) = 1, Pr(E|demand) = 1, Pr(\neg E|no\ demand) = 0$.

2. Suppose $c \leq F < \frac{c}{\pi}$. There is a pure pooling Perfect Bayesian Equilibrium in which the Officer always makes a demand, and the Politician responds with a counteroffer $x'' \equiv \pi F$. The officer's rejection region in this equilibrium is defined by $R^{''} \equiv (0, \pi F)$ thus he accepts the counteroffer and does not reveal the evidence is his possession. The posterior beliefs of P are described by $Pr(E|demand) = \pi, Pr(\neg E|demand) = 1 - \pi$.

3. Finally, suppose $c \leq F < \frac{c}{\pi}$. There is a semi-separating Perfect Bayesian Equilibiurm in which the Officer always places a demand when evidence exists, but if evidence does not exist, he places a demand with probability λ^* and refrains from placing a demand with probability $1 - \lambda^*$. In response to the demand, the Politician makes a counteroffer $x^{'} \equiv c$, and since the Officer's rejection region is defined by $R' \equiv (0, c)$, the officer accepts the counteroffer and does not reveal the evidence in his possession. The posterior beliefs of P be described by $Pr(E|no\ demand) = 0, Pr(\neg E|no\ demand) = \lambda^*, Pr(E|demand) = 1, Pr(\neg E|demand) = 1 - \lambda^*$, where $\lambda^* \equiv \frac{\pi(F-c)}{(1-\pi)c}$.

We first prove proposition B.1. about a pure separating equilibrium in which the officer equipped with evidence always places a demand, which the officer not equipped with such evidence never places a demand.

B.1 Pure separating equilibrium

Since it is never rational for O to not make a demand when he has evidence against the politician,[5] the only possible separating equilibrium is: $(demand, R^*, \text{no demand}, x^*;)$. The requirement for this to be a Bayesian equilibrium is that the posterior beliefs are $Pr(E|\text{no demand}) = 0, Pr(\sim E|\text{no demand}) = 1, Pr(E|demand) = 1, Pr(\sim E|demand) = 0$. The following four steps will lead to uncovering the conditions for this equilibrium.

1. First, suppose x^* is the proposal accepted in equilibrium. P knows that if he proposes $x < x^*$, evidence against him will be revealed with certainty. Therefore, on the one hand, if he is going make a proposal, in equilibrium, it must be accepted, because if it were to be rejected P should propose $x = 0$. On the other hand, if a demand is placed and P makes a counteroffer $x \neq a$, P's utility must be greater from having his proposal accepted than from proposing his ideal point, i.e.,

   $EU_P(x|demand, \text{no demand}) \geq EU_P(d|demand, \text{no demand})$, which is equivalent to $-x \geq -F$. The last expression simplifies to

   $$x \leq F$$

2. Second, note, that the lowest x^* that the politician should be willing to issue is $x^* = F$. Therefore, O's optimal rejection region is $R = (0, F)$

3. Third, note that to prevent O from bluffing (and making demands when there is no evidence), it has to be the case that that $EU_O(0|x^*, \sim E) \leq EU_O(1|x^*, \sim E)$, which is equivalent to $-|a - x^*| - c \leq -|-a|$. This last expression simplifies to $x^* \leq c$, which after substituting x^* from above gives:

   $$F \leq c$$

4. Fourth, for x^* to be a feasible proposal it has to be the case that $x^* \geq 0$, that is $F \geq 0$ otherwise P should just propose 0. Given the assumption that $F > 0$, this always holds.

We conclude that a pure separating equilibrium exists only when the cost of being fired (F) relative to the cost of bluffing c is quite low. In this pure separating equilibrium, blackmail is effective with probability π and the level of misrepresentation (F) is directly proportional to the cost of firing. In the next two sections, we find how this departure from programmatic representation compares with the effectiveness of blackmail under the pure pooling and semi-separating equilibria.

B.2 Pure pooling equilibrium

In pooling equilibria, agents with and without evidence will choose the same action, implying that the politician cannot update his prior beliefs to posterior beliefs, conditioning on the agent's action. In the analysis above, we established that the agent will never refuse to place a demand when evidence is present. Thus, the only possibility of a pooling equilibrium in this game is $(demand, R, demand; x'')$ with accompanying beliefs: $Pr(E|demand) = pi, Pr(\sim E|\text{no demand}) = (1 - \pi)$[6]. In this equilibrium, the agent always places a demand and the the dissident always offers the same counterproposal, x''.

[5]Note that P cannot make a counterproposal x when 0 has not made a demand. Thus, the worst O can do when making a demand is $-a$, which would be his payoff if P's counterproposal were $x = 0$, that is if P made no concession at all. But without making any demand O is guaranteed to receive $-a$ and no more.

[6]Note that paths that involve the officer not making a demand are off the equilibrium path and we do not have to specify the beliefs there. However, as in the section with quadratic preferences, we can assume that if the Politician observes no demand, he assumes he is dealing with an officer with no evidence

1. For such an equilibrium to hold, the politician has to prefer to have his proposal accepted to having it rejected, which may lead to his getting fired (if the proposal were to be rejected, he'd rather propose his ideal point, 0). Thus, it must me the case that $EU_P(x''|demand, deamnd) \geq EU_P(0|demand, demand)$, which is equivalent to $-|-x| \geq \pi(-|0-0|-F)+(1-\pi)*0$.[7] The last expression simplifies to :

$$x \geq pF$$

2. Since $x'' = \pi F$ is the lowest counterproposal the politician will issue, given his beliefs, the officer's optimal rejection region is $(0, \pi F]$.

3. To ensure the agent always has an incentive to place a demand, it has to be the case that $EU_O(demand|x'', \sim E) \geq EU_A(\text{no demand}|x'', \sim E)$, which is equivalent to $-|a-x''|-c \geq -|-a|$. This last expression simplifies to $x'' \geq c$, which after substituting x'' from above gives

$$F \geq \frac{c}{\pi}.$$

4. Finally, as before, to be feasible, x'' has to lie between 0 and a, i.e., $0 < \pi F < a$. The first part of the inequality is ensured by our assumption $0 < F$ and the second is ensured by $F < a$. .

Summing up, a pure pooling equilibrium exists only when the cost of being fired (F) relative to the cost of bluffing c is quite high. In this pure pooling equilibrium, lustration blackmail is always effective (takes place with probability 1). the distortion it causes relative to the dissident's ideal point and is πF. It is directly proportional to the cost of firing and the extent to which evidence exists. Our final subsection of the equilibrium analysis looks at the effectiveness of lustration blackmail under the semi-separating equillibrium.

B.2.1 Semi-separating equilibrium

In addition to the pure separating equilibrium discussed above, we also derive conditions (and verify their plausibility) of a semi-separating equilibrium. In this equilibrium, the officer plays a mixed strategy. He always makes a demand when evidence is present, but he also with some probability λ makes a demand if evidence does not exist (and with probability $1-\lambda$ does not make a demand). Consequently, any semi-separating equilibrium must fit the format $(demand, R, \lambda; x')$.[8] Note the beliefs consistent with this semi-pooling equilibrium are: $Pr(E|\text{no demand}) = 0), Pr(\sim E|demand) = \frac{\lambda^*(1-\pi)}{\lambda(1-\pi)+\pi}, Pr(E|demand) = \frac{\pi}{\lambda(1-\pi)+\pi}, Pr(\sim E|\text{no demand}) = 1$. These beliefs will be used in the calculation of the expected utilities. We proceed in six steps.

1. First, to find the equilibrium value of λ^*, we calculate the expected utility of the politician from responding x to the agent's demand ($EU_P(x'|0, \lambda)$) and set it equal to the expected utility of the politician's choosing an x which is outside of the agent's acceptance region ($EU_P(d|0, \lambda)$ This yields the equality $\pi(-|-x'|)+(1-\pi)\lambda(-|-x'|)+0 = \pi(-|0-0|-F)+(1-\pi)\lambda(-|0-0|+0 = -pF)$

2. Next, assuming that x' is the equilibrium proposal that falls into O's acceptance region we require that $\pi(-|-x'|)+(1-\pi)\lambda(-|-x'|) = -piF$, which in terms of λ can be stated as:

$$\lambda = \frac{\pi(-x') - \pi F}{(1-\pi)[-(-x')]} \tag{6}$$

[7]Note that since the politician cannot tell which type—with or without evidence—he is facing any better than he could before the agent took an action, his expected utility from making a proposal outside of the acceptance region is weighted by his priors about the probability that evidence exists.

[8]This means that the agent makes a demand with probability 1 if evidence exists and with probability λ if evidence does not exist.

3. To ensure that $0 < \lambda < 1$ and is a probability F must satisfy:

$$x' < F < \frac{x'}{\pi} \tag{7}$$

4. Next, to pin down x', we make use of the fact that when evidence does not exist, O must be indifferent between placing a demand and not placing one, i.e.: $EU_O(demand|x', \sim E) = EU_O(\text{no demand}|x', \sim E)$, which reduces to: $-|-a| = |-a-x'|-c$. the last equality, can be written in terms of x' as $x' = c$.

5. Finally, substituting x' into equation 6:

$$\lambda = \frac{\pi(F-c)}{(1-\pi)c} \tag{8}$$

6. To get scope conditions for the semi-separating equilibrium, we can substitute x' into condition 7:

$$c < F < c\pi$$

And to ensure that it is between a and 0, we need $c > a = 0$.

Below, we also derive an identity result characterizing the PBE outcome.

Recall that our model assumes that absent pressure from the officer, the politician would carry out the policies the voters desire, which correspond to his ideal point. Ultimately, what we are most interested in across all equilibria is the quality of representation: the extent to which the politician can withstand pressures from the officer to abandon his ideal point, 0. In addition to the values of x^*, x", and x', which correspond to the counteroffer proposed by the politician (in the the separating, pooling and semi-separating equilibria, respectively), we present the average levels of misrepresentation. Recall, that we interpret the quality of representation as resistance to the officer's blackmail. Conversely, misrepresentation is how we interpret the departures from 0, the *Politician*'s ideal point.

In order to derive the expected level of misrepresentation we weigh the PBE outcome in each equilibrium by the frequency of its occurrence. In the case of the pure separating equilibrium, it is simply $\pi(F)+(1-\pi)0$, as the officer only proposes $x^* = F$ when evidence exists, which is π of the time. The remaining $1-\pi$ of the time, he reverts to 0. In the case of the pure pooling equilibrium, the average policy is implemented at $1 * (\pi F)$, as the officer always places a demand and the politician always responds with $x" = \pi F$. In the case of the semi-separating equilibrium, the calculation of the policy implemented is somewhat more complex because the officer places a demand when evidence exists, π, and λ^* of the time when it does not exist. Hence the total frequency of placing a demand is given by $\pi + (1-\pi)\frac{\pi(F-c)}{(1-\pi)c}$. The politician responds to this demand with x', bringing the expected policy outcome to $(c)(\pi + (1-\pi)\frac{\pi(F-c)}{(1-\pi)c} + (1-\pi)(1-\frac{\pi(F-c)}{(1-\pi)c})0$, which as in the previous two cases reduces to πF. These expected policy outcomes are described below in Proposition 2, which follows directly from our derivation above.

Proposition 2 The PBE outcome, interpreted as the expected level of misrepresentation, is given by the same formula across all three equilibria: πF.

A key implication that follows from proposition 2 is that departures from perfect representation are constant for all values of a. This means that the effectiveness of blackmail does not depend on how far apart the ideal points of the officer and the politician are. This is somewhat surprising as intuitively, we would expect the ideological proximity of ideal points to matter. It is furthermore inconsistent with the empirical results we find. Yet, it is worthwhile pointing out that all the remaining comparative statics from the quadratic model continue to hold.

Appendix C: Data Creation and Summary Statistics

We developed our country selection criteria by expanding on the existing Autocratic Breakdown and Regime Transitions (GWF) dataset and the Post-Conflict Justice (PCJ) database datasets. We included countries that, as indicated by the Autocratic Breakdown and Regime Transitions dataset, are currently democratic and had transitioned from a military or party-based authoritarian regime in the post-1946 period. Our dataset also included any country with multiple indicators of regime type as long as at least one of the indicators

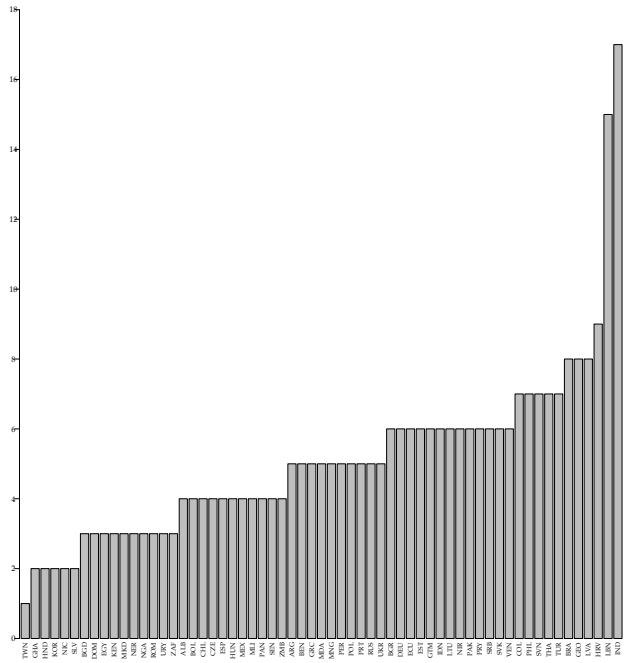
was "party-based" or "military." Thus, Argentina, which transitioned in 1983 from a military regime, was included, as was Burundi, which transitioned in 1993 from a military-personal regime, or Indonesia, which transitioned from a party-personal-military regime.[9]

We excluded all countries that are currently authoritarian and have remained authoritarian for most of the post-1946 era, as by our definition, these countries are unable to implement transitional justice.

If a country dissolved into a collection of smaller countries as a result of successful secession efforts, as Czechoslovakia and Yugoslavia did, we included any relevant lustration events from the original country as the transitional justice events for the most relevant successor country. All additional countries were coded as having transitioned at the date of independence. For example, we coded the Czech Republic as the successor country following the 1993 dissolution of Czechoslovakia. The Czech Republic thus inherited the post-1989 transitional justice events attributed to Czechoslovakia. Slovakia was then coded as having transitioned in 1993. Serbia was coded as the successor country to Yugoslavia, while Slovenia, Bosnia and Herzegovina, Croatia, Macedonia, Kosovo, and Montenegro were all coded as having transitioned at their respective dates of independence.

Finally, we included information on countries and conflict periods that led to transitional justice but which had been excluded from previous datasets.[10] We chose explicitly to include small countries because such countries are neither immune to periods of authoritarian rule nor periods of conflict or political violence, and as seen in the cases of East Timor or Kosovo, can implement all forms of transitional justice. We include a total of 313 parties from the 61 countries.

Figure b: Parties by country included in the analysis



[9]Also included were countries which had recently reverted to some form authoritarianism, such as Egypt and Thailand, which suffered from military coups in 2014 and 2013, respectively.

[10]An example of each includes Cyprus, which is excluded from GWF based on size, and Kenya, which is excluded despite its Post-Election Violence in 2007-2008. Although the Post-Election Violence in Kenya was excluded from PCJ, it produced numerous domestic transitional justice events, including the creation of a truth commission.

C.1 Quality of Representation (*cosal_3*)

We draw from Kitschelt et.al. to operationalize our dependent variable, quality of representation. Following their approach, we measure quality of representation with two dimensions: cohesion and salience. For purposes of minimizing endogeneity, we do not include polarization as a relevant dimensions. We use their original raw dataset that reports the survey conducted among experts regarding the characteristics and behavior of specific parties. For both dimensions, we draw from the following set of questions (or issues):

d1: Party policy position on social spending, measured on a 1-10 scale

d2: Party policy position on the state role in economy, measured on a 1-10 scale

d3: Party policy position on public spending, measured on a 1-10 scale

d4: Party policy position national identity, measured on a 1-10 scale

d5: Party policy position on traditional authority, institutions, and customs, measured on a 1-10 scale

Following Kitschelt et.al., we measure the cohesion for each issue i of party p in country k by calculating the standard deviation of the responses of that issue. The standard deviation of those issues that received less than 5 scores and of those issues that had a higher score than 3.5 are capped at 3.5 (to avoid outliers resulting from a low response rate). Next, we transformed this score in a way that translated higher standard deviations into lower values for cohesion. Finally, we normalized the scored to range from 0 to 1. The salience for issue i of party p in country k is simply the proportion of experts that gave a valid answer to the question on issue i. *cosal* measures are composites of cohesion and salience. *cosal_3*, specifically, is created by taking the average between three values, $cosal_{d4}$, $cosal_{d5}$, and the maximum value of $cosal_{d1}$, $cosal_{d2}$, and $cosal_{d3}$.

C.2 Severity of lustration (*severity*)

To create our lustration dataset we relied on two major electronic databases—Keesings Record of World Events and Lexis Nexis Academic Universe—and numerous secondary sources. The raw data include chronologies of events pertaining to lustration for all countries satisfying the selection criteria outlined above. We searched the aforementioned databases and secondary sources for information about events related to lustration in all relevant countries, beginning from the date of the transition to democracy, the start of the post-conflict period, or both (in the case of conflicts which occurred in democracies), and ending in either 2016 or the year in which the country reverted to authoritarianism.

Each chronology document includes relevant information about the final authoritarian regime and transition, conflict and post-conflict period, or both for a country. The records of each lustration event are provided in chronological order; the year, a brief identification of the event, the relevant state and non-state actors, a more detailed description of the event, and the source from which the information was found are noted. In order for a lustration event to be relevant, it must include an actor in his or her governing capacity enabling (progressive event) or disabling (regressive event) the pursuit of lustration.

Specifically, we define a progressive lustration event as the submission of a lustration proposal to the floor of the legislature, the passage of such legislation, the upholding of such legislation as constitutional by a supreme court, or the overturning of a presidential veto against such legislation. We define a regressive lustration event, in contrast, as the voting down, vetoing or striking down by the constitutional court of a lustration proposal or law. Similarly, expanding the set of persons targeted by lustration or broadening the set of "offenses" to include more past or present positions constitutes a progressive lustration event, whereas attempts to narrow the set of targets or "offenses" were coded as regressive lustration events. Each event was coded as progressive or regressive, but events that were not consistent with the definition of lustration as uncovering secret forms of collaboration were labeled as such, with an explanation of why the event was excluded.

The number of progressive and regressive lustration events was then aggregated to create an annual panel, with countries as the cross section and time since transition as the temporal dimension. A panel assembled in this way allows for the creation of many different measures of lustration. For each country, we report the sum of all progressive and all regressive lustration events, and we create a score of the *severity* of lustration

in each country k:

$severity_k = \frac{total\_progressive\_events_k}{total\_events_k+1}$.

C.3 Additional control variables

We also use the next control variables (all the variables are linearly transformed to range between 0 and 1 for easier interpretation).

party distance: Ideological distance between each party and the successor authoritarian party of each country. If a country had two or more successor parties, we used their average distance to each other party. In cases without any authoritarian successors, we imputed the mean distance.

years since transition: Number of years lapsed since transition. Own calculations.

press freedom: Freedom of the press Index, provided by Reporters without Borders. Data was linearly transformed so that higher values would reflect higher press freedom.

opposition status: Status of the opposition during authoritarian regime, data provided by Gandhi, Przeworski, and Vreeland. We transform the original variable into an indicator, where 0 corresponds either to no legislature, a nonpartisan legislature, or a legislature only allowing members from the ruling party, and 1 stands for the presence of multiple parties in the legislature during the authoritarian period.

missing successor: No authoritarian successor party. This variable was created using Anna Grzymala-Busse's coding of successor parties.

C.4 Summary statistics and correlation

Table a: Summary statistics for party variables

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	*N*
cosal_3	0.00	0.24	0.36	0.36	0.48	0.95	313
party distance	0.00	0.25	0.43	0.43	0.58	1.00	313
DALP's *d1*	1.50	3.67	4.47	4.64	5.62	9.12	313
DALP's *d2*	1.07	4.00	5.15	5.22	6.50	9.44	313
DALP's *d3*	1.00	3.18	4.15	4.25	5.25	9.00	313
DALP's *d4*	1.20	3.31	4.56	4.71	5.91	9.91	313
DALP's *d5*	1.14	3.94	5.27	5.30	6.60	9.40	313

Table b: Correlation between party-level variables

	cosal_3	*party distance*	DALP's d1	DALP's d2	DALP's d3	DALP's d4	DALP's d5
cosal_3	1						
party distance	0.01	1					
DALP's *d1*	-0.01	-0.03	1				
DALP's *d2*	-0.09	-0.02	0.82	1			
DALP's *d3*	-0.03	0.01	0.82	0.87	1		
DALP's *d4*	0.07	0.12	0.19	0.19	0.28	1	
DALP's *d5*	-0.09	0.07	0.08	0.11	0.13	0.68	1

Table c: Summary statistics for country-level variables

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	N
severity	0.00	0.00	0.00	0.30	0.60	0.82	61
years since transition	0.04	0.38	0.54	0.52	0.62	1.00	61
press freedom	0.54	0.72	0.79	0.78	0.84	1.00	61
opposition status	0.00	0.00	0.75	0.51	1.00	1.00	61
missing successor	0.00	0.00	0.00	0.43	1.00	1.00	61

Table d: Correlation between country-level variables

	severity	*years since transition*	*press freedom*	*opposition status*	*missing successor*
severity	1				
years since transition	0.18	1			
press freedom	0.44	0.28	1		
opposition status	-0.2	-0.46	-0.11	1	
missing successor	-0.22	0.32	-0.15	-0.15	1

Appendix D: Robustness checks

D.1 Selection into treatment

Suppose more developed countries both have more progressive lustration and a more robust and democratic party system. There is no within-country temporal variation that we can use to provide evidence of causality: our data captures variation of severity across time, but our outcome of interest, quality of representation, is observed only once. However, we can conduct the following plausibility probe: We begin by regressing the observed *severity* in country k as a function of *gdp per capita* in country k at the time of its transition (*tyear*), the years lapsed since the transition (*years since transition*), and the competitiveness of the inaugural elections measured as *margin* of victory. We also include an indicator if in country k there were no elections observed. This model takes the form:

$$\begin{aligned} severity_k = & b_0 + b_1 * log(gdp\ per\ capita_{k,tyear}) + b_2 * years\ since\ transition_k + \\ & b_4 * margin_{k,eyear} + b_5 * miss\_ele_k + e_k \end{aligned}$$

We then use the results from this model to estimate the severity of lustration in each country k, and we denote the predicted outcome variable *predicted severity*. *Predicted severity* captures only economic and political determinants, in addition to how many years country k has had an opportunity to engage in lustration. We then use this variable to estimate the same models reported in Table 1 of the main text, but using *predicted severity* instead of our original dependent variable. Our results are robust to this test.

D.2 Including GDP per capita

Economic development and state capacity are factors that could explain both lustration severity and the quality of representation. To refute this source of endogeneity in our models, we control for log(gdp per capita).

D.3 Using only pre-2008 country-years

Another robustness check involves discarding from our measure of lustration *severity* all post-2008 country years, as 2008 is when DALP data was collected. Are results are robust to this test also.

Table e: Quality of representation and predicted severity of lustration

	Model 1	Model 2	Model 3	Model 4	Model 5
party distance	-0.103^{***}	-0.106^{***}	-0.106^{***}	-0.107^{***}	-0.096^{***}
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
predicted severity		0.587^{***}	0.579^{***}	0.518^{***}	0.375^{***}
		(0.104)	(0.119)	(0.118)	(0.112)
years since transition			0.016	-0.034	0.096
			(0.109)	(0.107)	(0.108)
press freedom				0.420^{**}	0.357^{*}
				(0.191)	(0.200)
opposition status					-0.007
					(0.037)
Constant	0.379^{***}	0.171^{***}	0.166^{***}	-0.121	-0.046
	(0.032)	(0.046)	(0.055)	(0.141)	(0.152)
Country intercepts	Y	Y	Y	Y	Y
Observations	313	307	307	307	307
Log Likelihood	177.450	184.076	182.781	184.387	180.693
Akaike Inf. Crit.	-344.900	-356.151	-351.562	-352.774	-345.387
Bayesian Inf. Crit.	-326.169	-333.790	-325.474	-322.959	-315.572

Note: *p<0.1; **p<0.05; ***p<0.01

Table f: Quality of representation (controlling for log(GDP per capita))

	Model 1	Model 2	Model 3	Model 4	Model 5
party distance	-0.105^{***}	-0.109^{***}	-0.111^{***}	-0.111^{***}	-0.111^{***}
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
log(gdp per capita)	0.136^{***}	0.104^{***}	0.109^{***}	0.108^{***}	0.108^{***}
	(0.025)	(0.027)	(0.027)	(0.026)	(0.026)
severity		0.161^{**}	0.126^{*}	0.082	0.082
		(0.065)	(0.066)	(0.068)	(0.069)
years since transition			0.187^{**}	0.139	0.142
			(0.094)	(0.095)	(0.102)
press freedom				0.366^{*}	0.366^{*}
				(0.190)	(0.192)
opposition status					0.002
					(0.035)
Constant	-0.784^{***}	-0.569^{**}	-0.680^{***}	-0.928^{***}	-0.930^{***}
	(0.216)	(0.224)	(0.226)	(0.255)	(0.259)
Country intercepts	Y	Y	Y	Y	Y
Missing successor	Y	Y	Y	Y	Y
Observations	307	307	307	307	307
Log Likelihood	181.917	183.092	183.601	184.680	182.243
Akaike Inf. Crit.	−351.835	−352.184	−351.202	−351.360	−344.485
Bayesian Inf. Crit.	−329.474	−326.096	−321.387	−317.818	−307.217

Note: *p<0.1; **p<0.05; ***p<0.01

Table g: Quality of representation (countries before 2008)

	Model 1	Model 2	Model 3	Model 4	Model 5
party distance	-0.103^{***}	-0.102^{***}	-0.104^{***}	-0.105^{***}	-0.105^{***}
	(0.034)	(0.035)	(0.035)	(0.035)	(0.036)
severity (pre-2008)		0.261^{***}	0.258^{***}	0.188^{***}	0.190^{***}
		(0.066)	(0.066)	(0.070)	(0.071)
years since transition			0.003	0.002	0.003
			(0.002)	(0.002)	(0.003)
press freedom				0.573^{**}	0.570^{**}
				(0.226)	(0.228)
opposition status					0.007
					(0.038)
Constant	0.379^{***}	0.309^{***}	0.265^{***}	-0.164	-0.169
	(0.032)	(0.038)	(0.054)	(0.173)	(0.176)
Country intercepts	Y	Y	Y	Y	Y
Missing successor	Y	Y	Y	Y	Y
Observations	313	294	294	288	288
Log Likelihood	177.450	170.425	166.017	163.998	161.663
Akaike Inf. Crit.	-344.900	-328.849	-318.035	-311.996	-305.326
Bayesian Inf. Crit.	-326.169	-306.748	-292.250	-282.692	-272.359
Note:					*p<0.1; **p<0.05; ***p<0.01

D.4 Using *log(years since transition)*

We also explore the possibility of a non-linear effect of *years since transition*. We estimate all our models using *log(years since transition)* instead of *years since transition* and include an interaction term between *log(years since transition)* and severity of lustration.

Table h: Quality of representation (years since transition logged)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
party distance	-0.103^{***}	-0.107^{***}	-0.108^{***}	-0.110^{***}	-0.111^{***}	-0.112^{***}
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
severity		0.278^{***}	0.260^{***}	0.214^{***}	0.213^{***}	0.109
		(0.062)	(0.065)	(0.070)	(0.071)	(0.152)
log(years since transition)			0.031	0.009	0.007	0.021
			(0.036)	(0.038)	(0.039)	(0.043)
press freedom				0.410^{*}	0.412^{*}	0.452^{**}
				(0.222)	(0.223)	(0.230)
opposition status					−0.006	−0.006
					(0.037)	(0.037)
*severity*log(years since transition)*						−0.152
						(0.198)
Constant	0.379^{***}	0.278^{***}	0.313^{***}	−0.016	−0.014	−0.032
	(0.032)	(0.036)	(0.054)	(0.186)	(0.188)	(0.190)
Country intercepts	Y	Y	Y	Y	Y	
Missing successor	Y	Y	Y	Y	Y	
Observations	313	313	313	307	307	307
Log Likelihood	177.450	184.327	182.293	178.196	175.841	175.436
Akaike Inf. Crit.	−344.900	−356.654	−350.586	−340.393	−333.682	−330.871
Bayesian Inf. Crit.	−326.169	−334.177	−324.362	−310.578	−300.140	−293.603

Note: *p<0.1; **p<0.05; ***p<0.01

D.5 Using original outcome variable *cosalpo_4*

In addition, we present a similar set of models but with DALP's original variable *cosalpo_4*. Since *cosalpo_4* includes the dimension of polarization, we drop from our estimations *party distance* to avoid having measures of similar concepts on both sides of the repression.

D.6 Conditions of the opposition

Our empirical finding regarding *party distance* could be biased if we did not control for the relationship between the pre-transition opposition and the government. An alternative way to account for this relationship is to use the successor vote share in the election immediately following the transition. A second alternative is to use the margin of victory, or competitiveness, in that election.

Table i: Quality of representation (measured as DALP's *cosalpo_4*)

	Model 1	Model 2	Model 3	Model 4
severity	0.200***	0.186***	0.140***	0.144***
	(0.045)	(0.045)	(0.049)	(0.049)
years since transition		0.125*	0.098	0.118
		(0.071)	(0.072)	(0.078)
press freedom			0.319**	0.313**
			(0.155)	(0.155)
opposition status				0.019
				(0.028)
Constant	0.182***	0.121***	−0.101	−0.118
	(0.020)	(0.040)	(0.113)	(0.116)
Country intercepts	Y	Y	Y	Y
Observations	313	313	307	307
Log Likelihood	286.689	286.497	280.789	278.365
Akaike Inf. Crit.	−565.377	−562.995	−549.578	−542.730
Bayesian Inf. Crit.	−550.393	−544.264	−527.216	−516.642

Note: *p<0.1; **p<0.05; ***p<0.01

Table j: Quality of representation (vote share of successor and margin of victory)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
party distance	-0.103^{***}	-0.107^{***}	-0.109^{***}	-0.111^{***}	-0.115^{***}	-0.111^{***}
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
severity		0.278^{***}	0.255^{***}	0.208^{***}	0.215^{***}	0.206^{***}
		(0.062)	(0.064)	(0.069)	(0.068)	(0.069)
years since transition			0.150	0.108	0.093	0.104
			(0.103)	(0.107)	(0.105)	(0.108)
press freedom				0.370^{*}	0.348	0.367^{*}
				(0.215)	(0.212)	(0.216)
successor vote share					-0.003^{*}	
					(0.002)	
margin of victory						0.001
						(0.002)
Constant	0.379^{***}	0.278^{***}	0.217^{***}	-0.039	0.046	-0.050
	(0.032)	(0.036)	(0.055)	(0.158)	(0.163)	(0.160)
Country intercepts	Y	Y	Y	Y	Y	Y
Missing successor	Y	Y	Y	Y	Y	Y
Observations	313	313	313	307	307	307
Log Likelihood	177.450	184.327	184.036	179.721	175.681	174.469
Akaike Inf. Crit.	-344.900	-356.654	-354.073	-343.442	-333.362	-330.939
Bayesian Inf. Crit.	-326.169	-334.177	-327.849	-313.627	-299.820	-297.397

Note: *p<0.1; **p<0.05; ***p<0.01

D.7 Subset of countries with no missing successors

We also estimate the same models from Table 1 in the main text using only the subset of countries that actually had an (non-imputed) successor authoritarian party.

Table k: Quality of representation, only countries with successor party

	Model 1	Model 2	Model 3	Model 4	Model 5
party distance	−0.086*	−0.090**	−0.092**	−0.094**	−0.095**
	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)
severity		0.200**	0.163*	0.160*	0.159*
		(0.080)	(0.090)	(0.091)	(0.093)
years since transition			0.148	0.082	0.072
			(0.163)	(0.183)	(0.200)
press freedom				0.254	0.263
				(0.312)	(0.325)
opposition status					−0.009
					(0.061)
Constant	0.374***	0.302***	0.247***	0.077	0.080
	(0.032)	(0.042)	(0.074)	(0.222)	(0.226)
Country intercepts	Y	Y	Y	Y	Y
Observations	153	153	153	153	153
Log Likelihood	83.746	85.065	84.581	84.667	82.794
Akaike Inf. Crit.	−159.492	−160.130	−157.162	−155.333	−149.588
Bayesian Inf. Crit.	−147.370	−144.977	−138.979	−134.120	−125.345
Note:					*p<0.1; **p<0.05; ***p<0.01

D.8 Distance normalized by country

Our final replication of the results presented in Table 1 uses a modified version of the variable of *party distance*. We normalize this variable so that for any country k, the maximum distance of any party to the authoritarian successor party in country k is 1 and the minimum distance of any party to the authoritarian successor party in country k is 0.

Table l: Quality of representation (party distance normalized by country)

	d_party normalized by country				
	Model 1	Model 2	Model 3	Model 4	Model 5
party distance (normalized)	−0.019	−0.019	−0.020	−0.020	−0.020
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
severity		0.199**	0.165*	0.162*	0.161*
		(0.080)	(0.090)	(0.090)	(0.092)
years since transition			0.138	0.089	0.085
			(0.160)	(0.181)	(0.198)
press freedom				0.189	0.192
				(0.311)	(0.322)
opposition status					−0.004
					(0.060)
Constant	0.354***	0.279***	0.227***	0.101	0.103
	(0.030)	(0.041)	(0.073)	(0.219)	(0.224)
Observations	152	152	152	152	152
Log Likelihood	80.913	82.248	81.708	81.642	79.747
Akaike Inf. Crit.	−153.825	−154.496	−151.417	−149.283	−143.494
Bayesian Inf. Crit.	−141.730	−139.377	−133.273	−128.116	−119.303
Note:					*p<0.1; **p<0.05; ***p<0.01