Supplemental Appendix

"Reviewing Fast or Slow: A Theory of Summary Reversal in the Judicial Hierarchy"

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American Journal of Political Science

Contents

Introduction

Please note that all equations, propositions, and lemmas, introduced in this Supplemental Appendix are indicated with "SA" in the numbering. Anything without such a designation refers back to equations, propositions, and lemmas (as well as Remark 1) in the main paper.

A Preliminary Analysis

We begin with preliminary analysis to support Lemma 1; this requires generalizing the analysis to not presume that the lower court always employs a cutpoint strategy, or that the conservative disposition is never summarily reversed. Recall from the main text that we maintain the following assumptions on the primitive parameters throughout our analysis.

Assumption SA-1. *We assume that* $H > \frac{1}{2}$ *(the conservative disposition strictly optimal for the higher court ex ante) and* $\max\{M, 0\} < H - \frac{1-H}{\sqrt{1-p}}$ *(the higher court would always summarily reverse the liberal disposition if it believed the lower court to be ruling sincerely).*

A.1 The Higher Court's Calculus

The higher court seeks to induce the liberal disposition as the final outcome when the case facts are above her ideal cutpoint ($x \geq H$) and the conservative disposition as the final outcome otherwise ($x < H$), but can only base her review and summary reversal decisions on the observed lower court disposition $d \in \{\ell, c\}$ (if she reviews, she will learn the true value of x and issue whichever final ruling leads to the optimal disposition as the outcome, regardless of whether that involves upholding or reversing the lower court disposition.)[1] Denote the CDF describing the politician's interim beliefs about the case facts given an observed disposition d as $F^d(x)$, and the conditional expectation of the case facts as $E^d[x]$.

We first characterize the conditional probability $\alpha^d \in [0, 1]$ that the higher court (costlessly) summarily reverses a disposition of d should she decline to conduct a full rehearing of

[1] We also assume for notational simplicity that whenever the higher court is indifferent after review—i.e., $x = H$ (which is a measure 0 event)—she will take whichever action ensures the liberal disposition.

the case in a best response. Recall that the higher court's net benefit $u(x, H, \ell) - u(x, H, c)$ for the liberal disposition is simply $x - H$. Next, let Λ_H^d denote the expected net benefit of taking the action that results in the liberal disposition becoming the final outcome given disposition d (i.e., upholding if $d = \ell$ and reversing if $d = c$), so that

$$\Lambda_H^d = E^d[x] - H$$

If the lower court disposition is liberal ($d = \ell$) then in a best response the higher court must always summarily uphold when $\Lambda_H^d > 0$ ($\alpha^\ell = 0$) and summarily reverse when $\Lambda_H^d < 0$ ($\alpha^d = 1$). Conversely, if the lower court disposition is conservative ($d = c$) then in a best response the higher court must always summarily uphold ($\alpha^d = 0$) when $\Lambda_H^d < 0$ and summarily reverse ($\alpha^d = 1$) when $\Lambda_H^d > 0$.

We next characterize the higher court's disposition-dependent review cutpoint ϕ^d.

First, when $\Lambda_H^d \geq 0$ (so that in a best response she would take whichever summary action results in the liberal disposition as the outcome absent review) a review is only *pivotal* for changing her decision when it reveals that the case facts are actually conservative, which she believes will occur with probability $F^c(H)$. In this event, the expected net benefit of changing her decision from one that ensures the liberal disposition to one that ensures the conservative disposition is $H - E^d[x|x < H]$. The overall value of review ϕ^d is thus equal to

$$\phi_c^d = F^c(H) \cdot \left(H - E^d[x|x < H]\right)$$

Next, when $\Lambda_H^d \leq 0$ (so that in a best response she would take whichever summary action results in the conservative disposition as the outcome absent review) a review is only pivotal for changing her decision when it reveals that the case facts are actually liberal, which she believes will occur with probability $1 - F^c(H)$. In this event, the expected net benefit of changing her decision from one that ensures the conservative disposition to one that ensures the liberal disposition is $E^d[x|x \geq H] - H$. The overall value of review ϕ^d is thus equal to

$$\phi_\ell^d = (1 - F^c(H)) \cdot \left(E^d[x|x \geq H] - H\right)$$

Finally, observe that $\Lambda_H^d = E^d[x] - H =$

$$(1 - F^c(H)) \cdot \left(E^d[x|x \geq H] - H\right) + F^c(H) \cdot \left(E^d[x|x < H] - H\right) = \phi_\ell^d - \phi_c^d$$

Thus, when $\Lambda_H^d \geq 0$ (so that the overall value of review is $\phi^d = \phi_c^d$) we must also have $\phi_c^d \leq \phi_\ell^d$, and when $\Lambda_H^d \leq 0$ (so that the overall value of review is $\phi^d = \phi_\ell^d$) we must also have $\phi_\ell^d \leq \phi_c^d$; combining these observations yields that the overall value of review ϕ^d is $\phi^d = \min\left\{\phi_\ell^d, \phi_c^d\right\}$ .. Collecting the above observations yields the higher court's best response behavior.

Observation SA-1. *Let $F^d(x)$ denote the CDF of the higher court's posterior after disposition d and let $\Lambda_H^d = E^d[x] - H$. The higher court's strategy is a best response i.f.f. she:*

- *conducts a full review whenever $k \leq \phi^d = \min\left\{\phi_\ell^d, \phi_c^d\right\}$ where*

  $$\phi_c^d = F^c(H) \cdot \left(H - E^d[x|x < H]\right) \quad \text{and} \quad \phi_\ell^d = (1 - F^c(H)) \cdot \left(E^d[x|x \geq H] - H\right)$$

- *always summarily reverses absent review ($\alpha^d = 1$) when $\left(d = \ell, \Lambda_H^d < 0\right)$ or $\left(d = c, \Lambda_H^d > 0\right)$*
- *never summarily reverses absent review ($\alpha^d = 0$) when $\left(d = c, \Lambda_H^d < 0\right)$ or $\left(d = \ell, \Lambda_H^d > 0\right)$*

A.2 The Lower Court's Calculus

The lower court seeks to maximize the probability of her preferred outcome while minimizing the likelihood of reversal. When choosing a disposition, the lower court privately knows both the case facts $x \in [0, 1]$ and his own ideal cutpoint $L \in \{A, M\}$. Let $\delta_L(x)$ denote the *probability* a lower court of type L chooses the liberal disposition given case facts x, which is the most general form of the lower court's strategy

To examine the lower court's calculus, it is helpful to first rewrite the higher court's feasible strategies $\left(\phi^d, \alpha^d\right)$ after disposition d in terms of the quantities $\left(\phi^d, \Delta^d\right)$ with $\Delta^d \in \left[0, 1 - G\left(\phi^d\right)\right]$, where $\Delta^d = \left(1 - G\left(\phi^d\right)\right) \cdot \left(1 - \alpha^d\right)$ equals the *unconditional probability that disposition d is summarily upheld.* We then have that the lower court's expected utility from choosing the conservative disposition $d = c$ is:

$$\left(\left(1 - \Delta^d\right) - \mathbf{1}_{x \leq H} \cdot G(\phi^c)\right) \cdot (x - L) - \left(\left(1 - \Delta^d\right) - \mathbf{1}_{x \leq H} \cdot G(\phi^c)\right) \cdot \epsilon_L \qquad \text{(SA-1)}$$

whereas his expected utility from choosing the liberal disposition is:

$$\left(\Delta^{\ell} + G\left(\phi^{\ell}\right) \cdot \mathbf{1}_{x \geq H}\right) \cdot (x - L) - \left(\left(1 - \Delta^{\ell}\right) - G\left(\phi^{\ell}\right) \cdot \mathbf{1}_{x \geq H}\right) \cdot \epsilon_L \qquad \text{(SA-2)}$$

We now separately analyze the *net benefit* of choosing the liberal disposition when $x < H$ (it is non-compliant) versus $x \geq H$ (it is compliant). Taking the difference between between eqns. (SA-2) and (SA-1) yields a *net benefit* of issuing a *noncompliant* liberal (versus compliant conservative) disposition when $x < H$ equal to:

$$\left(\left(\Delta^{\ell} + \Delta^{c}\right) - \left(1 - G\left(\phi^{c}\right)\right)\right) \cdot (x - L) - \left(\left(\Delta^{c} - \Delta^{\ell}\right) + G\left(\phi^{c}\right)\right) \cdot \epsilon_L$$

Similarly, the *net benefit* of issuing a *compliant* liberal (versus noncompliant conservative) disposition when $x \geq H$ is equal to:

$$\left(\left(\Delta^{\ell} + \Delta^{c}\right) - \left(1 - G\left(\phi^{\ell}\right)\right)\right) \cdot (x - L) - \left(\left(\Delta^{c} - \Delta^{\ell}\right) - G\left(\phi^{\ell}\right)\right) \cdot \epsilon_L$$

Collecting the above yields the lower court's best response behavior.

Observation SA-2. *Let* $\Delta^{d} = \left(1 - G\left(\phi^{d}\right)\right) \cdot \left(1 - \alpha^{d}\right)$ *denote the unconditional probability that disposition* $d \in \{\ell, c\}$ *is summarily upheld, and let* $\delta_L(x)$ *denote the probability a type-*L *lower court chooses the liberal disposition given* x. *The lower court's strategy is a best response i.f.f.* $\forall x < H$ *we have*

$$\left(\left(\Delta^{\ell} + \Delta^{c}\right) - \left(1 - G\left(\phi^{c}\right)\right)\right) \cdot (x - L) > (<) \left(\left(\Delta^{c} - \Delta^{\ell}\right) + G\left(\phi^{c}\right)\right) \cdot \epsilon_L \rightarrow \delta_L(x) = 1 \ (0)$$

and $\forall x \geq H$ *we have*

$$\left(\left(\Delta^{\ell} + \Delta^{c}\right) - \left(1 - G\left(\phi^{\ell}\right)\right)\right) \cdot (x - L) > (<) \ \left(\left(\Delta^{c} - \Delta^{\ell}\right) - G\left(\phi^{\ell}\right)\right) \cdot \epsilon_L \rightarrow \delta_L(x) = 1 \ (0)$$

Note that *within* the regions where a particular final disposition is optimal for the higher court ($x < H$ or $x \geq H$) the lower court's net benefit for initially choosing the liberal disposition is *linear* in x; thus, *within* each region the behavior of each type $L \in \{M, A\}$ will be described by a cutpoint in *any* equilibrium (so that there may be four in total). However, the preceding analysis does not preclude the possibility that a given type of lower court may have two distinct cutpoints (one over $x < H$ and another $x \geq H$), nor the possibility that within a region more liberal case facts are associated with *conservative* rather than liberal dispositions (if, for example, the conservative disposition is relatively more likely to lead to the liberal outcome because it is sometimes rather than always summarily reversed). We consider these arguably pathological possibilities in the subsequent analysis.

A.3 Properties of Equilibrium

We start by proving a straightforward property of equilibria.

Lemma SA-1. *If the conservative disposition is sometimes summarily reversed ($\alpha^c > 0$) then the liberal disposition is always summarily reversed ($\alpha^\ell = 1$).*

Proof: First observe that $E[x] - H < 0$ (the conservative disposition is optimal for H under the prior distribution of case facts) and

$$E[x] - H = \Pr(d = c) \cdot \Lambda_H^c + \Pr(d = \ell) \cdot \Lambda_H^\ell$$

Now if $\alpha^c > 0$ in a best response then it must be the case that $\Lambda_H^c \geq 0$ by Observation SA-1; but then the preceding implies that $\Lambda_H^\ell < 0$, which implies $\alpha^\ell = 1$ by Observation SA-1. QED

In words, Lemma SA-1 states that, since the higher court's *expected* ideal disposition under the prior is conservative, then *if* she is sometimes summarily reversing the conservative disposition (so that the expected ideal disposition is weakly liberal after the conservative disposition), *then* the expected ideal disposition must be strictly conservative after the liberal disposition (leading to certain summary reversal). Thus, should a conservative disposition sometimes be summarily reversed, then the liberal disposition must always be summarily reversed, implying that the structure of equilibrium signals is reversed, so that the conservative disposition signals that the expected case facts are liberal and the liberal disposition signals that the expected case facts are conservative.

We next rule out the possibility that such "reversed" signalling equilibria exist under our initial assumption that $\max\{M, 0\} < H - \frac{1-H}{\sqrt{1-p}}$.

Lemma SA-2. *Suppose $H > \frac{1}{2}$ and $\max\{M, 0\} < H - \frac{1-H}{\sqrt{1-p}}$; then in any equilibrium the conservative disposition is never summarily reversed ($\alpha^c = 0$), implying that $\phi^c = \phi_\ell^c$ (a full review of a conservative disposition is a search for liberal case facts).*

Proof: Suppose instead that $\alpha^c > 0$; by Lemma SA-1 we have $\alpha^\ell = 1 \rightarrow \Delta^\ell = 0$. By Observation SA-2 the benefit to a misaligned lower court of a *noncompliant* liberal ruling ($x < H$) is $-\alpha^d (1 - G(\phi^c)) \cdot (x - M) - (\Delta^c + G(\phi^c)) \cdot \epsilon_L$, which is strictly negative in the disagreement region $x \in [M, H]$. The reason is that when the liberal ruling is noncompliant ($x < H$), ruling liberally actually yields a *strictly lower* probability of the liberal outcome alongside greater expected reversal costs. Consequently, in a best response the misaligned lower court *never* rules liberally in this region.

Now *given* this equilibrium constraint on the behavior of a misaligned lower court, the dispositional behavior among the *other* cases $x \in [0, M) \cup (H, 1]$ that will result in the "most liberal" expected case facts after the conservative disposition would be if *both* the aligned and misaligned lower courts rule conservatively if and only if the actual case facts are liberal ($x \in (H, 1]$). In other words, when $\alpha^c > 0$ the *highest* possible value of the *expected* case facts after a conservative ruling would be if both types rule conservatively if and only if their ideal disposition is liberal. But then the expected case facts are identical to what they would be after the liberal ruling if both types of lower court ruled sincerely; thus, given the assumption that $\max\{M, 0\} < H - \frac{1-H}{\sqrt{1-p}}$ the higher court must strictly prefer the conservative disposition after the conservative ruling, contradicting $\alpha^c > 0$. QED

Having ruled out summary reversal of conservative dispositions, we next consider exactly how the lower court will rule in cases where the optimal disposition is conservative ($x \leq H$). Observe that $\alpha^c = 0 \rightarrow \Delta^c = 1 - G(\phi^c)$; substituting into the lower court's calculus yields that the net benefit of issuing a noncompliant liberal disposition is:

$$\Delta^\ell \cdot (x - L) - \left(1 - \Delta^\ell\right) \cdot \epsilon_L \qquad \text{(SA-3)}$$

Examining this calculus yields the following additional properties of equilibrium.

Lemma SA-3. *In any equilibrium $\Delta^\ell > 0$ (the unconditional probability that the liberal disposition is upheld is strictly positive), implying that $\phi^\ell = \phi^\ell_c$ (a full review of liberal a disposition is a search for conservative case facts).*

Proof: Suppose not and $\Delta^\ell = 0$; then both types of lower court will rule conservatively when $x \leq H$, implying that the liberal disposition is a perfect signal that $x > H$; but then in a higher court best response we have $\alpha^\ell = 1$ and $\phi^\ell = 0 \rightarrow \Delta^\ell = 1$, a contradiction. QED

The preceding implies that issuing a noncompliant liberal disposition ($x < H$) will always *strictly* increase both the probability of the liberal outcome (from 0 to Δ^ℓ) and of summary reversal (from 0 to $1 - \Delta^\ell$). This simple observation then yields the following natural additional properties of equilibrium.

Lemma SA-4. *In any equilibrium, lower court behavior on cases $x < H$ satisfies the following:*

- *An aligned lower court ($L = A = H$) always rules conservatively.*
- *A misaligned lower court ($L = M < H$) rules according to a cutpoint*
$$\bar{x}_M\left(\Delta^\ell\right) = \max\left\{M + \left(\frac{1-\Delta^\ell}{\Delta^\ell}\right) \cdot \epsilon_M, 0\right\}$$
that always exhibits some non-compliance ($\bar{x}_M\left(\Delta^\ell\right) < H$).

Proof: It follows immediately from eqn. (SA-3) and Lemma SA-3 that (a) an aligned–type lower court $L = A = H$ will always rule conservatively when $x < H$, and (b) over the region $x < H$ a misaligned lower court $L = M$ will use a cutpoint $\bar{x}_M\left(\Delta^\ell\right) = \min\left\{\max\left\{M + \left(\frac{1-\Delta^\ell}{\Delta^\ell}\right) \cdot \epsilon_L, 0\right\}, H\right\}$. To see that a misaligned lower-court always exhibits some noncompliance ($\bar{x}_M\left(\Delta^\ell\right) < H$, implying that $\bar{x}_M\left(\Delta^\ell\right) = \max\left\{M + \left(\frac{1-\Delta^\ell}{\Delta^\ell}\right) \cdot \epsilon_L, 0\right\}$), suppose not so that $\bar{x}_M\left(\Delta^\ell\right) = H$ (as of yet we place no restriction on whether an aligned or misaligned lower court ever panders, i.e., how they rule over $x \geq H$). Then issuing the liberal disposition perfectly signals compliance ($\phi_c^\ell = F^\ell(H) \cdot \left(H - E^\ell[x|x < H]\right) = 0$), so in a best-response liberal disposition is neither reversed nor reviewed so $\Delta^\ell = 1$; but then $\bar{x}_M\left(\Delta^\ell\right) = \max\{M, 0\} < H$, a contradiction. QED

We last examine the calculus of the lower court over issuing a compliant liberal dispositions ($x \geq H$); the net benefit of doing so is:

$$\left(\Delta^{\ell} + \left(G\left(\phi^{\ell}\right) - G\left(\phi^{c}\right)\right)\right) \cdot (x - L) - \left(\left(1 - \Delta^{\ell}\right) - \left(G\left(\phi^{\ell}\right) + G\left(\phi^{c}\right)\right)\right) \cdot \epsilon_L \qquad \text{(SA-4)}$$

As compared to eqn. (SA-3), it is clear that when the liberal ruling is actually compliant ($x \geq H$), ruling liberally carries a reduced risk of *triggering* a reversal that would have otherwise not occured as compared to when a liberal ruling is noncompliant ($x \geq H$). Formally, in the latter case ruling liberally rather than conservatively increases the risk of reversal by $1 - \Delta^{\ell}$, whereas in the former case it only does so by $\left(1 - \Delta^{\ell}\right) - \left(G\left(\phi^{\ell}\right) + G\left(\phi^{c}\right)\right)$; the latter quantity may even be negative if the higher court is frequently reviewing both liberal dispositions (therefore upholding liberal compliant ones) and conservative dispositions (therefore reversing noncompliant conservative ones).

However, the effect of ruling liberally (versus conservatively) on the probability *the liberal disposition is the final outcome* when $x \geq H$ is less obvious. For example, if the higher court often reviews conservative dispositions but summarily reverses liberal ones, then $\Delta^{\ell} + \left(G\left(\phi^{\ell}\right) - G\left(\phi^{c}\right)\right)$ may be negative, meaning that ruling conservatively is actually more likely to lead to the liberal outcome (since the higher court will frequently review and reverse noncompliant conservative rulings and just summarily reverse liberal ones). Consequently, the lower court's best response may not be described by a single cutpoint, and/or when $x \geq H$ he may be more inclined to rule conservatively on more *liberal* case facts.

We cannot rule out these possibilities as equilibria. Instead, we justify a restriction to the simpler strategy profiles of Remark 1 as follows. First, in this section we provide a sufficient condition $\phi^{\ell} \geq \phi^{c}$ that rules them out and ensures the lower court's best response when $x \geq H$ is well behaved. Second, in the subsequent equilibrium characterization we show this sufficient condition holds in any equilibrium without pandering, as well as any equilibrium with pandering in which strategies are in cutpoints.

First, the condition $\phi^{\ell} \geq \phi^{c}$ yields the following additional properties.

Lemma SA-5. *In an equilibrium with $\phi^{\ell} \geq \phi^{c}$, lower court behavior when $x \geq H$ is as follows:*

- *A misaligned lower court ($L = M < H$) always rules liberally.*

- *An aligned lower court ($L = A = H$) rules according to a cutpoint*

$$\bar{x}_A\left(\Delta^\ell, \phi^\ell, \phi^c\right) = \min\left\{H + \left(\frac{\left(1-\Delta^\ell\right) - \left(G\left(\phi^\ell\right) + G\left(\phi^c\right)\right)}{\Delta^\ell + \left(G\left(\phi^\ell\right) - G\left(\phi^c\right)\right)}\right) \cdot \epsilon_A, 1\right\}$$

Proof: First, we have already established that in any equilibrium $\Delta^c = 1 - G\left(\phi^c\right)$ (which is equivalent to $\alpha^c = 0$) and $\Delta^\ell > 0$. Second, observe that $\phi^\ell \geq \phi^c$ implies that $\Delta^\ell + \left(G\left(\phi^\ell\right) - G\left(\phi^c\right)\right) \geq \Delta^\ell > 0$. Now, the fact that over $x \geq H$ an aligned lower court must rule according to the cutpoint $\bar{x}_A\left(\Delta^\ell, \phi^\ell, \phi^c\right)$ follows immediately from the calculus in eqn. (SA-4) combined with $\Delta^\ell + \left(G\left(\phi^\ell\right) - G\left(\phi^c\right)\right) > 0$.

To show that a misaligned lower court ($L = M < H$) always rules liberally over $x \geq H$, observe that $\bar{x}_M\left(\Delta^\ell\right) < H$ (from Lemma SA-4) implies there exists a case fact $x' \in \left(\bar{x}_M, H\right)$ such that the lower court strictly prefers to issue a noncompliant liberal ruling, i.e., $\Delta^\ell \cdot (x' - M) - \left(1 - \Delta^\ell\right) \cdot \epsilon_M > 0$ from eqn. SA-3. It therefore follows that

$$\left(\Delta^\ell + \left(G\left(\phi^\ell\right) - G\left(\phi^c\right)\right)\right) \cdot (x' - M) - \left(\left(1 - \Delta^\ell\right) - \left(G\left(\phi^\ell\right) + G\left(\phi^c\right)\right)\right) \cdot \epsilon_M > 0$$

since $G\left(\phi^\ell\right) - G\left(\phi^c\right) \geq 0$ and $x' > M$. Finally since $\Delta^\ell + \left(G\left(\phi^\ell\right) - G\left(\phi^c\right)\right) > 0$ we have

$$\left(\Delta^\ell + \left(G\left(\phi^\ell\right) - G\left(\phi^c\right)\right)\right) \cdot (x - M) - \left(\left(1 - \Delta^\ell\right) - \left(G\left(\phi^\ell\right) + G\left(\phi^c\right)\right)\right) \cdot \epsilon_M > 0$$

for $x \geq H > x'_M$, so that that in a best response an M-type lower court rules liberally. QED

Next, the condition $\phi^\ell \geq \phi^c$ also yields the required lower bound $\tilde{x}_M\left(x_A\right)$ on the degree of non-compliance by a misaligned lower court in Lemmas 3-4

Lemma SA-6. *An equilibrium with $\phi^\ell \geq \phi^c$ satisfies $x_M \geq \tilde{x}_M\left(x_A\right) = H - \left(\frac{(1-H)^2 - p(x_A - H)^2}{1-p}\right)^{\frac{1}{2}}$.*

Proof: From the preceding, any equilibrium in which $\phi^\ell \geq \phi^c$ must satisfy $x_M \in (0, H)$ and $x_A \geq H$. In addition we have already established that $\Delta^\ell > 0$ requires that $\Lambda^\ell_H = E^\ell[x] - H \geq 0$. We now show that this condition is equivalent to $p\left(x_A - H\right)^2 + (1-p)\left(H - x_M\right)^2 \leq (1-H)^2 \iff x_M \geq \tilde{x}_M\left(x_A\right)$.

We have that $\Lambda_H^\ell = E^\ell[x] - H$

$$
\begin{aligned}
&= \Pr(x \geq H|d=\ell) \cdot (E[x|x \geq H, d=\ell] - H) + \Pr(x \leq H|d=\ell) \cdot (E[x|x \leq H, d=\ell] - H) \\
&= \Pr(x \geq H|d=\ell) \cdot \begin{pmatrix} \Pr(L=A|x \geq H, d=\ell) \cdot (E[x|L=A, x \geq H, d=\ell] - H) \\ +\Pr(L=M|x \geq H, d=\ell) \cdot (E[x|L=M, x \geq H, d=\ell] - H) \end{pmatrix} \\
&\quad + \Pr(x \leq H|d=\ell) \cdot \begin{pmatrix} \Pr(L=A|x \leq H, d=\ell) \cdot (E[x|L=A, x \leq H, d=\ell] - H) \\ +\Pr(L=M|x \leq H, d=\ell) \cdot (E[x|L=M, x \leq H, d=\ell] - H) \end{pmatrix} \\
&= \frac{1}{\Pr(d=\ell)} \cdot \begin{pmatrix} \Pr(L=A, x \geq H, d=\ell) \cdot (E[x|L=A, x \geq H, d=\ell] - H) \\ +\Pr(L=M, x \geq H, d=\ell) \cdot (E[x|L=M, x \geq H, d=\ell] - H) \\ +\Pr(L=A, x \leq H, d=\ell) \cdot (E[x|L=A, x \leq H, d=\ell] - H) \\ +\Pr(L=M, x \leq H, d=\ell) \cdot (E[x|L=M, x \leq H, d=\ell] - H) \end{pmatrix} \\
&= \frac{1}{\Pr(d=\ell)} \cdot \begin{pmatrix} p\left((1-H) - (x_A - H)\right) \cdot \left(\frac{x_A - H}{2} + \frac{1-H}{2}\right) \\ +(1-p)(1-H)\left(\frac{H+1}{2} - H\right) + (1-p)(H - x_M)\left(\frac{x_M + H}{2} - H\right) \end{pmatrix} \\
&= \frac{(1-H)^2 - p(x_A - H)^2 - (1-p)(H - x_M)^2}{2\Pr(d=\ell)}
\end{aligned}
$$

From here it is straightforward that $E^\ell[x] - H \geq 0$ reduces to the desired condition. QED

Finally, it is clear from inspection that Lemmas SA-4-SA-6 jointly imply that in any equilibrium where $\phi^\ell \geq \phi^c$, the lower court's behavior must be described by *cutpoint strategies* with $x_M = \bar{x}_M(\Delta^\ell) \geq \tilde{x}_M(x_A)$ and $x_A = \bar{x}_A(\Delta^\ell, \phi^\ell, \phi^c)$ over the entire case space $x \in [0,1]$ (and not just separately over the intervals $x < H$ and $x \geq H$); it therefore also implies that $\phi^\ell = \phi_c^\ell = \phi^\ell(x_A, x_M)$ and $\phi^c = \phi_\ell^c = \phi^c(x_A, x_M)$ as characterized in the paper. We summarize as follows.

Corollary SA-1. *A strategy profile in which $\phi_\ell \geq \phi_c$ is an equilibrium if and only if it takes the form described in Remark 1 and Lemma 1, with*

- $\phi^\ell = \phi^\ell(x_A, x_M) = \frac{(1-p)(H-x_M)^2}{2\Pr(d=\ell)}$ *and* $\phi^c = \phi^c(x_A, x_M) = \frac{p(x_A - H)^2}{2\Pr(d=c)}$, *where* $\Pr(d=\ell) = 1 - \Pr(d=c) = p(1-x_A) + (1-p)(1-x_M)$

- $\alpha^c = 0$ *and* $\alpha^\ell = 1 - \frac{\Delta^\ell}{1-G(\phi^\ell)} \in [0,1)$

- $x_M = \bar{x}_M\left(\Delta^\ell\right)$, $x_A = \bar{x}_A\left(\Delta^\ell, \phi^\ell, \phi^c\right)$, *and* $x_M \geq \tilde{x}_M\left(x_A\right)$.

B Equilibrium Analysis

In this section we derive conditions for cutpoint equilibria without and with summary reversal. It is helpful to first provide a generalized version of our result in Lemma 5 that pandering (i.e., ruling conservatively when the case facts are liberal) and summary reversal are inextricably linked (that is, one cannot occur without the other) which does not rely on the addition strategy profile restrictions in Remark 1.

Proposition SA-1. *The lower court sometimes panders (*$\Pr(d = c|x \geq H) > 0$*) i.f.f. the higher court sometimes summarily reverses the liberal disposition (*$\alpha^\ell > 0$*).*

Proof: We first show that the presence of pandering implies the presence of summary reversal (by contrapositive). Suppose not and there is no summary reversal ($\alpha^\ell = 0 \iff \Delta^\ell = 1 - G\left(\phi^\ell\right)$); then the net benefit of issuing a compliant liberal disposition reduces to $(1 - G(\phi^c)) \cdot (x - L) + G(\phi^c) \cdot \epsilon_L > 0$ for all $x > H \geq L$; thus in a best response there is 0-probability of pandering by either type.

We next show that the presence of summary reversal ($\alpha^\ell > 0 \iff \Delta^\ell < 1 - G\left(\phi^\ell\right)$) implies pandering (by contradiction). Suppose not so $\alpha^\ell > 0$ but there is no pandering ($\Pr(d = c|x \geq H) = 0$); the benefit of a compliant liberal disposition ($x \geq H$) reduces to

$$\left(\Delta^\ell + G\left(\phi^\ell\right)\right) \cdot (x - L) - \left(\left(1 - G\left(\phi^\ell\right)\right) - \Delta^\ell\right) \cdot \epsilon_L$$

But since $\Delta^\ell + G\left(\phi^\ell\right) > 0$ and $\Delta^\ell < 1 - G\left(\phi^\ell\right)$, for an aligned lower court ($L = H$) this expression is strictly negative for values of $x \geq H$ sufficiently close to H, implying an aligned lower court's best response involves some pandering, a contradiction. QED

B.1 Equilibrium without summary reversal

We next prove Proposition 1, which establishes necessary and sufficient conditions for an equilibrium without summary reversal.

Proof of Proposition 1

Suppose $\alpha^\ell = 0$ (there is no summary reversal) so that $\Delta_\ell = 1 - G(\phi^\ell)$; then by Proposition SA-1 there is no pandering ($\Pr(d = c|x \geq H) = 0$) and $\phi^c = \phi^c_\ell = 0$, implying that $\phi^\ell = \phi^\ell(H, x_M) \geq \phi^c = 0$ and $x_A = \bar{x}_A(1 - G(\phi^\ell), \phi^\ell, 0) = H$. Thus, any equilibrium without summary reversal must take the form in Remark 1 and Lemma 1. Such a strategy profile will be an equilibrium i.f.f. $x_M = \bar{x}_M(\Delta^\ell)$ and $x_M \geq \tilde{x}_M(\Delta^\ell)$. Substituting in, such a profile with a level of noncompliance $x^*_M < H$ will be an equilibrium i.f.f.

$$x^*_M = \bar{x}_M\left(1 - G\left(\phi^\ell(H, x^*_M)\right)\right) \text{ and } x^*_M \geq \tilde{x}_M(H)$$

(noting that $\tilde{x}_M(H) \geq 0$ by Assumption SA-1 so that $\bar{x}_M(\Delta^\ell) = M + \left(\frac{1-\Delta^\ell}{\Delta^\ell}\right) \cdot \epsilon_L$).

Now it is easily verified that $G\left(\phi^\ell(H, x_M)\right)$ is strictly decreasing in x_M and $\bar{x}_M(\Delta^\ell)$ is strictly decreasing in Δ^ℓ; thus $\bar{x}_M\left(1 - G\left(\phi^\ell(H, x_M)\right)\right)$ is strictly decreasing in x_M with $\bar{x}_M\left(1 - G\left(\phi^\ell(H, H)\right)\right) = \bar{x}_M(0) = M < H$. Thus, either $\bar{x}_M\left(1 - G\left(\phi^\ell(H, \tilde{x}_M(H))\right)\right) < \tilde{x}_M(H)$ and no solution to the equilibrium condition exists, or

$$\bar{x}_M\left(1 - G\left(\phi^\ell(H, \tilde{x}_M(H))\right)\right) \geq \tilde{x}_M(H)$$

and there is a unique solution $x^*_M \in [\tilde{x}_M(H), H)$. Finally, straightforward algebra shows that the preceding is equivalent to the condition $\bar{M}(\cdot) \leq M$ provided in the paper. QED

B.2 Equilibrium with summary reversal

A generalized version of Lemma 5 that does not restrict attention to strategy profiles of the form in Remark 1 has already been shown in Proposition SA-1. Next, to characterize summary reversal equilibria of the desired form we show that any such equilibria must satisfy the key condition that $\phi^\ell \geq \phi^c$.

Lemma SA-7. *Any summary reversal equilibrium of the form in Remark 1 satisfies* $\phi^\ell \geq \phi^c$.

Proof: By Proposition 1 an equilibrium with summary reversal ($\alpha^\ell > 0$) must involve pandering; if it takes the form described in Remark 1 it must therefore satisfy $x_M = \tilde{x}_M(x_A) < H < x_A$ as well as $\phi^\ell = \phi^\ell(x_A, x_M)$ and $\phi^c(x_A, x_M)$. We must therefore show that $\phi^{\ell}(x_A, \tilde{x}_M(x_A)) \geq \phi^c(x_A, \tilde{x}_M(x_A))$ when $x_A \in (H, 1]$, which is equivalent to

$$\Pr(d = c) \cdot (1-p)(H - \tilde{x}_M(x_A))^2 \geq \Pr(d = \ell) \cdot p(x_A - H)^2$$

Using that $(1-p)(H - \tilde{x}_M(x_A))^2 = (1-H)^2 - p(x_A - H)^2$, substituting into the desired condition, and rearranging yields that:

$$\Pr(d = c) \cdot (1-H)^2 \geq p(x_A - H)^2$$

Finally, since $\Pr(d = c) \geq p x_A$ it suffices to show the stronger inequality $x_A(1-H)^2 \geq (x_A - H)^2$. Clearly this holds strictly at $x_A = H$ and with equality at $x_A = 1$. Since both sides are strictly increasing in x_A with the l.h.s. linear and the r.h.s. strictly convex, it must therefore also hold for all values of $x_A \in (H, 1]$ (since if $x'_A(1-H)^2 > (x'_A - H)^2$ at some x'_A then they must cross at most once over all $x_A \geq x'_A$). QED

The preceding establishes that the conditions in Observation SA-1 are sufficient for summary reversal equilibria of the form in Remark 1, as well as necessary for summary reversal equilibria satisfying $\phi^{\ell} \geq \phi^c$. Using these conditions we next prove Proposition 2, which further characterizes summary reversal equilibria of the desired form, and shows that one such equilibrium always exists whenever an equilibrium without summary reversal does not.

Proof of Proposition 2

Suppose $\alpha^{\ell} > 0$ (there is summary reversal) so that $\Delta_{\ell} < 1 - G(\phi^{\ell})$. Then by the preceding analysis there is a pandering equilibrium of the form in Remark 1 with pandering $x_A^* > H$ if and only if $x_A^* = \bar{x}_A(\Delta^{\ell}, \phi^{\ell}, \phi^c)$, $x_M = \tilde{x}_M(x_A^*), \phi^{\ell} = \phi^{\ell}(x_A^*, \tilde{x}_M(x_A^*))$, $\phi^c = \phi^c(x_A^*, \tilde{x}_M(x_A^*))$, and $\tilde{x}_M(x_A^*) = \bar{x}_M(\Delta^{\ell})$ where $\Delta^{\ell} = (1 - G(\phi^{\ell})) \cdot (1 - \alpha^{\ell})$; it is easily verified that this matches the conditions stated in the paper.

We next provide a straightforward fixed point characterization of equilibrium values of x_A^*. The final condition in the preceding list pins down the required value of $\Delta^{\ell} = \bar{x}_M^{-1}(\tilde{x}_M(x_A^*)) < 1 - G(\phi^{\ell})$, where $\bar{x}_M^{-1}(x_M) = \left(\frac{x_M - M}{\epsilon_M} + 1\right)^{-1}$; substituting all quantities into the first equality a single necessary and sufficient equilibrium condition in the form of a fixed point:

$$x_A^* = \bar{x}_A\left(\bar{x}_M^{-1}\left(\tilde{x}_M\left(x_A^*\right)\right), \phi^\ell\left(x_A^*, \tilde{x}_M\left(x_A^*\right)\right), \phi^c\left(x_A^*, \tilde{x}_M\left(x_A^*\right)\right)\right) \tag{SA-5}$$

We last use the fixed point characterization to show that a summary reversal equilibrium of this form exists whenever an equilibrium without summary reversal does not. Observe that since $\bar{x}_A(1) \leq 1$ from the definition of $\bar{x}_A(\cdot)$, a *sufficient* (but not necessary) condition for the existence of a fixed point with $x_A^* > H$ is that the left hand side of eqn. SA-5 is strictly less than the right hand side when evaluated at $x_A^* = H$. Using $\phi^c\left(H, \tilde{x}_M(H)\right) = 0$ a sufficient condition for existence of a pandering equilibrium is therefore:

$$H < \bar{x}_A\left(\bar{x}_M^{-1}\left(\tilde{x}_M(H)\right), \phi^\ell\left(H, \tilde{x}_M(H)\right), 0\right).$$

Next using the definition of $\bar{x}_A(\cdot)$ the condition is equivalent to

$$H < H + \left(\frac{\left(1 - \bar{x}_M^{-1}\left(\tilde{x}_M(H)\right)\right) - G\left(\phi^\ell\left(H, \tilde{x}_M(H)\right)\right)}{\bar{x}_M^{-1}\left(\tilde{x}_M(H)\right) + G\left(\phi^\ell\left(H, \tilde{x}_M(H)\right)\right)}\right) \cdot \epsilon_A$$

which in turn simplifies to

$$\bar{x}_M^{-1}\left(\tilde{x}_M(H)\right) < 1 - G\left(\phi^\ell\left(H, \tilde{x}_M(H)\right)\right),$$

which is exactly the condition derived in the proof of Proposition 1 under which a summary reversal equilibrium is absent. QED

Proof of Proposition 3

We perform comparative statics on the equilibrium with the least amount of pandering (denoted $x_A^* \geq H$) whenever it exhibits a strictly positive amount of pandering ($x_A^* > H$) and in addition the level of pandering is interior ($x_A^* < 1$).

By definition, the equilibrium with the least amount of pandering actually exhibits pandering ($x_A^* > H$) if and only if an equilibrium without pandering (and hence without summary reversal) does not exist. As previously shown this is the case if and only if $\bar{x}_M^{-1}\left(\tilde{x}_M(H)\right) < 1 - G\left(\phi^\ell\left(H, \tilde{x}_M(H)\right)\right)$ (see the proof of Proposition 1), which we have also shown is exactly equivalent to the condition

$$H < \bar{x}_A\left(\bar{x}_M^{-1}\left(\tilde{x}_M(H)\right), \phi^\ell\left(H, \tilde{x}_M(H)\right), 0\right).$$

in the fixed point characterization of summary reversal equilibria in the proof of Proposition 2. If the lowest pandering equilibrium is also interior ($H < x_A^* < 1$), then again by the fixed point characterization in the proof of Proposition 2 it must be the case that

$$x_A^* = H + \left(\frac{\left(1 - \bar{x}_M^{-1}\left(\tilde{x}_M\left(x_A^*\right)\right)\right) - \left(\frac{\phi^\ell\left(x_A^*, \tilde{x}_M\left(x_A^*\right)\right) + \phi^c\left(x_A^*, \tilde{x}_M\left(x_A^*\right)\right)}{\bar{k}}\right)}{\bar{x}_M^{-1}\left(\tilde{x}_M\left(x_A^*\right)\right) + \left(\frac{\phi^\ell\left(x_A^*, \tilde{x}_M\left(x_A^*\right)\right) - \phi^c\left(x_A^*, \tilde{x}_M\left(x_A^*\right)\right)}{\bar{k}}\right)} \right) \cdot \epsilon_A, \qquad \text{(SA-6)}$$

and that l.h.s. is strictly less than the r.h.s. when evaluated $\forall x_A \in [H, x_A^*)$ (since otherwise there would be a strictly lower pandering equilibrium).

Next, to analyze comparative statics effects of some arbitrary parameter q on $x_A^*(q)$ under these circumstances, observe that *if* the right hand side of the preceding condition can be shown to be strictly increasing (decreasing) in q then it must be the case that $x_A^*(q) < x_A^*(q')$ for $q' > q$ (since then the r.h.s. evaluated at q' will be *strictly* greater than the l.h.s. $\forall x_A \in [H, x_A^*(q)]$, implying that the lowest fixed point $x_A^*(q')$ must be $> x_A^*(q)$).

We now consider which primitive parameters have an unambiguous effect on the r.h.s. of eqn. SA-6 holding x_A fixed.

First observe that the parameters (M, ϵ_M) affecting the misaligned lower court's incentives only enter the rhs through $\bar{x}_M^{-1}(\cdot)$ (which is *increasing* in M and ϵ_M) and moreover the r.h.s. is *decreasing* in $\bar{x}_M^{-1}(\cdot)$; hence *decreasing* either M or ϵ_M *increases* the right hand side, therefore causing equilibrium pandering to *increase.*

Last observe that the r.h.s. is unambigously increasing in both ϵ_A and $\bar{k}$. Thus, equilibrium pandering also *increases* as both the aligned lower court's reversal cost increases, and as the maximum of review cost increases (which causes the distribution of review costs to first order stochastically increase). QED

B.3 Higher Court Welfare

In this section we analyze the equilibrium welfare of the higher court.

Derivation of Equation 5. Recall from the paper that

$$EU^H = \Pr(d=\ell)\cdot\left(E\left[u(x,H,\ell)|d=\ell\right]+\int_0^{\phi^\ell}\left(\phi^\ell-k\right)g(k)\,dk\right) + \Pr(d=c)\cdot\left(E\left[u(x,H,c)|d=c\right]+\int_0^{\phi^c}\left(\phi^c-k\right)g(k)\,dk\right)$$

Now $g(k)=\frac{1}{\bar{k}}$ implies $\int_0^\phi(\phi-k)\,g(k)\,dk=\frac{\phi^2}{2\bar{k}}$; substituting and rearranging yields $EU^H=$

$$\Pr(d=\ell)\cdot E\left[\frac{u(x,H,\ell)-u(x,H,c)}{2}|d=\ell\right]+\Pr(d=c)\cdot E\left[\frac{u(x,H,c)-u(x,H,\ell)}{2}|d=c\right] + E\left[\frac{u(x,H,\ell)+u(x,H,c)}{2}\right]+\left(\frac{1}{2\bar{k}}\right)\left(\Pr(d=\ell)\cdot\left(\left(\phi^\ell\right)^2\right)+\Pr(d=c)\cdot\left(\left(\phi^c\right)^2\right)\right)$$

which in turn is equal to:

$$E\left[\frac{x-H}{2}\right]+\frac{1}{2}\left(\Pr(d=\ell)\cdot\Lambda_H^\ell-\Pr(d=c)\cdot\Lambda_H^c\right) + \left(\frac{1}{2\bar{k}}\right)\left(\Pr(d=\ell)\cdot\left(\left(\phi^\ell\right)^2\right)+\Pr(d=c)\cdot\left(\left(\phi^c\right)^2\right)\right),$$

recalling that $\Lambda_H^d=E^d[x]-H=E[x-H|d]$.

Now recall from the proof of Appendix Lemma SA-6 that $\Lambda_H^\ell=\frac{(1-H)^2-p(x_A-H)^2-(1-p)(H-x_M)^2}{2\Pr(d=\ell)}$; using a similar method as in that proof we would like to calculate Λ_H^c. We have that Λ_H^c

$$\begin{aligned}
&= \Pr(x\geq H|d=c)\cdot\left(E[x|x\geq H,d=c]-H\right)+\Pr(x\leq H|d=c)\cdot\left(E[x|x\leq H,d=c]-H\right)\\
&= \Pr(x\geq H|d=c)\cdot\left(\begin{array}{c}\Pr(L=A|x\geq H,d=c)\cdot\left(E[x|L=A,x\geq H,d=c]-H\right)\\ +\Pr(L=M|x\geq H,d=c)\cdot\left(E[x|L=M,x\geq H,d=c]-H\right)\end{array}\right)\\
&\quad +\Pr(x\leq H|d=c)\cdot\left(\begin{array}{c}\Pr(L=A|x\leq H,d=c)\cdot\left(E[x|L=A,x\leq H,d=c]-H\right)\\ +\Pr(L=M|x\leq H,d=c)\cdot\left(E[x|L=M,x\leq H,d=c]-H\right)\end{array}\right)\\
&= \frac{1}{\Pr(d=c)}\cdot\left(\begin{array}{c}\Pr(L=A,x\geq H,d=c)\cdot\left(E[x|L=A,x\geq H,d=c]-H\right)\\ +\Pr(L=M,x\geq H,d=c)\cdot\left(E[x|L=M,x\geq H,d=c]-H\right)\\ +\Pr(L=A,x\leq H,d=c)\cdot\left(E[x|L=A,x\leq H,d=c]-H\right)\\ +\Pr(L=M,x\leq H,d=c)\cdot\left(E[x|L=M,x\leq H,d=c]-H\right)\end{array}\right)\\
&= \frac{1}{\Pr(d=c)}\cdot\left(p(x_A-H)\cdot\left(\frac{H+x_A}{2}-H\right)+pH\left(\frac{H}{2}-H\right)+(1-p)\,x_M\cdot\left(\frac{x_M}{2}-H\right)\right)\\
&= \frac{1}{2\Pr(d=c)}\cdot\left(p(x_A-H)^2+(1-p)(H-x_M)^2-H^2\right)
\end{aligned}$$

Substituting these quantities into the previous expression and rearranging yields that $EU^H =$

$$E\left[\frac{x-H}{2}\right] \quad +\frac{1}{4}\left(\begin{array}{c}\left((1-H)^2 - p\left(x_A - H\right)^2 - (1-p)\left(H - x_M\right)^2\right) \\ +\left(H^2 - p\left(x_A - H\right)^2 - (1-p)\left(H - x_M\right)^2\right)\end{array}\right)$$
$$+\left(\frac{1}{2\bar{k}}\right)\left(\Pr\left(d=\ell\right)\cdot\left(\left(\phi^{\ell}\right)^2\right) + \Pr\left(d=c\right)\cdot\left(\left(\phi^{c}\right)^2\right)\right),$$

Finally, subtracting $E\left[\frac{x-H}{2}\right]$ and multiplying through by 4 (neither of which depend on the strategies) yields the expression in Equation 5 for $\tilde{EU}^H$.

Equilibrium Characterization without Summary Reversal

We next fully characterize equilibrium when summary reversal is not an option available to the higher court.

Absent the possibility of summary reversal we must have $\alpha^{\ell} = 0$ so that $\Delta_{\ell} = 1 - G\left(\phi^{\ell}\right)$; then by Proposition SA-1 there is no pandering ($\Pr\left(d = c | x \geq H\right) = 0$) and $\phi^c = \phi^c_{\ell} = 0$, implying that $\phi^{\ell} = \phi^{\ell}\left(H, x_M\right) \geq \phi^c = 0$ and $x_A = \bar{x}_A\left(1 - G\left(\phi^{\ell}\right), \phi^{\ell}, 0\right) = H$. Thus, any equilibrium in the model without the summary reversal option must take the form in Remark 1, and such a strategy profile will be an equilibrium i.f.f. $x_M = \bar{x}_M\left(\Delta^{\ell}\right)$. (Unlike the main model in which summary reversal is an option, we no longer require that $x_M \geq \tilde{x}_M\left(\Delta^{\ell}\right)$, i.e., we no longer require that the higher court would not *want* to exercise the summary reversal option if she could.)

Substituting in the required values of Δ^{ℓ} and ϕ^{ℓ}, such a profile with a level of noncompliance $x^*_M < H$ will be an equilibrium i.f.f.

$$x^*_M = \bar{x}_M\left(1 - G\left(\phi^{\ell}\left(H, x^*_M\right)\right)\right),$$

where $\bar{x}_M\left(\Delta^{\ell}\right) = \max\left\{M + \left(\frac{1-\Delta^{\ell}}{\Delta^{\ell}}\right)\cdot\epsilon_M, 0\right\}$). Finally recall that $G\left(\phi^{\ell}\left(H, x_M\right)\right)$ is strictly decreasing in x_M and $\bar{x}_M\left(\Delta^{\ell}\right)$ is strictly decreasing in Δ^{ℓ} until it (potentially) reaches 0. Thus $\bar{x}_M\left(1 - G\left(\phi^{\ell}\left(H, x_M\right)\right)\right)$ is strictly decreasing in x_M with $\bar{x}_M\left(1 - G\left(\phi^{\ell}\left(H, H\right)\right)\right) = \bar{x}_M\left(0\right) = M < H$. Therefore there is a unique equilibrium $x^*_M \in (M, H)$ satisfying $x^*_M \geq 0$.

Now there are two possibilities for the unique equilibrium. First we may have, that $M + \left(\frac{G\left(\phi^{\ell}(H,0)\right)}{1-G\left(\phi^{\ell}(H,0)\right)}\right)\cdot\epsilon_M = M + \left(\frac{\phi^{\ell}(H,0)}{\bar{k}-\phi^{\ell}(H,0)}\right) \leq 0$ so that $\bar{x}_M\left(1 - \frac{\phi^{\ell}(H,0)}{\bar{k}}\right) = 0 = x^*_M$, i.e., a misaligned lower court always rules liberally. Second we may have that $M+\left(\frac{\phi^{\ell}(H,0)}{\bar{k}-\phi^{\ell}(H,0)}\right)\cdot\epsilon_M >$ 0, so that there is a unique $x_M^* > 0$ such that

$$x_M^* = \bar{x}_M\left(1-\frac{\phi^{\ell}(H,0)}{\bar{k}}\right) = M+\left(\frac{\phi^{\ell}(H,x_M^*)}{\bar{k}-\phi^{\ell}(H,x_M^*)}\right)\cdot\epsilon_M$$

and a misaligned lower court sometimes rules conservatively. Finally, it is easily verified that x_M^* is strictly decreasing in $\bar{k}$ unless $x_M^* = 0$ at some $\bar{k}$ which point it is constant and 0 thereafter; the latter will occur at a sufficiently high $\bar{k}$ i.f.f. $M < 0$.

Proof of Proposition 4

We first consider equilibrium of the game without summary reversal. For the proof we explicitly denote the dependence of the unique equilibrium compliance cutpoint $x_M^N\left(\bar{k}\right)$ in the model with no summary reversal on $\bar{k}$. Observe that for any value of x_M we have $\phi^{\ell}(H,x_M)$ is bounded above by $\phi^{\ell}(H,0)$; thus in any equilibrium of the model with no summary reversal the quantity $\left(\frac{\phi^{\ell}\left(H,x_M^N\left(\bar{k}\right)\right)}{\bar{k}-\phi^{\ell}\left(H,x_M^N\left(\bar{k}\right)\right)}\right)\cdot\epsilon_M \to 0$ as $\bar{k}\to\infty$, implying from the definition of $\bar{x}_M(\cdot)$ and the equilibrium characterization that $x_M^N\left(\bar{k}\right)\to\max\{M,0\}$ as $\bar{k}\to\infty$; since we have assumed $\max\{M,0\} < \tilde{x}_M(0)$ it is therefore the case that

$$(1-H)^2-\left(p\left(x_A^N\left(\bar{k}\right)-H\right)^2+(1-p)\left(H-x_M^N\left(\bar{k}\right)\right)^2\right) = (1-H)^2-(1-p)\left(H-x_M^N\left(\bar{k}\right)\right)^2 < 0$$

for sufficiently large $\bar{k}$.

We next consider equilibrium of the game with summary reversal. By Proposition 1 we have that *every* equilibrium involves summary reversal i.f.f.

$$M < \bar{M}\left(\bar{k}\right) = \tilde{x}_M(H)-\left(\frac{\phi^{\ell}(H,\tilde{x}_M(H))}{\bar{k}-\phi^{\ell}(H,\tilde{x}_M(H))}\right)\cdot\epsilon_M$$

Since $\bar{M}\left(\bar{k}\right)$ increasing in $\bar{k}$ and $\to\tilde{x}_M(H)$ as $\bar{k}\to\infty$ and we have assumed $M < \tilde{x}_M(H)$, we have that every equilibrium of the game with summary reversal involves the actual use of summary reversal in equilibrium for sufficiently high $\bar{k}$. Thus, in any equilibrium of the game with summary reversal we have that $(1-H)^2 = p\left(x_A^S-H\right)^2+(1-p)\left(H-x_M^S\right)^2$.

Combining, we have that for sufficiently high $\bar{k}$ it is the case that $\tilde{EU}_S^H-\tilde{EU}_N^H =$

$$2\left((1-p)\left(H-x_M^N\left(\bar{k}\right)\right)^2-(1-H)^2\right)+\frac{2}{\bar{k}}\begin{pmatrix}\Pr_S(d=\ell)\cdot\left(\phi_S^{\ell}\right)^2-\Pr_N(d=\ell)\cdot\left(\phi_N^{\ell}\right)^2\\+\Pr_S(d=c)\cdot\left(\phi_S^{c}\right)^2-\Pr_N(d=c)\cdot\left(\phi_N^{c}\right)^2\end{pmatrix}$$

regardless of the choice of equilibrium of the game with summary reversal. Finally, it is easily verified that the term in the parentheses following $\frac{2}{\bar{k}}$ is bounded for all feasible values of (x_M, x_A); thus, the maximum value of the second term over all possible equilibria of the summary reversal game approaches 0 as $\bar{k} \to \infty$; since $(1-p)\left(H - x_M^N\left(\bar{k}\right)\right)^2 - (1-H)^2$ increasing in $\bar{k}$ and > 0 for sufficiently high $\bar{k}$ the entire expression must be > 0 regardless of the equilibrium chosen in the summary reversal game for sufficiently high $\bar{k}$. QED

Proof of Proposition 5

We first consider properties of the game without summary reversal. Recall that we have assumed $0 < \tilde{x}_M(H) \iff 0 < H - \frac{1-H}{\sqrt{1-p}}$; this assumption may be equivalently interpreted as a bound on H, i.e., that $H > \frac{1}{\sqrt{1-p}+1} \in \left[\frac{1}{2}, 1\right]$ (in addition to $H < 1$). Next it is easily verified that $\left(\frac{G\left(\phi^\ell(H,0)\right)}{1-G\left(\phi^\ell(H,0)\right)}\right) \cdot \epsilon_M$ is bounded below for all feasible values of H. Thus, from the equilibrium characterization of the game without summary reversal, we have that for sufficiently low M the unique equilibrium of the game without summary reversal is $x_M^N = 0$ for any feasible value of H.

We next consider properties of the game with summary reversal. Since it is easily verified that $\left(\frac{\phi^\ell(H,\tilde{x}_M(H))}{\bar{k}-\phi^\ell(H,\tilde{x}_M(H))}\right) \cdot \epsilon_M$ is also bounded below for all feasible values of H, we have that for sufficiently low M every equilibrium of the game with summary reversal involves the use of summary reversal for any feasible value of H, implying that in any equilibrium $(1-H)^2 = p\left(x_A^S - H\right)^2 + (1-p)\left(H - x_M^S\right)^2$. Next, from the equilibrium characterization in Proposition 2 any equilibrium $\left(x_M^S, x_A^S\right)$ must also satisfy $x_M^S = \tilde{x}_M\left(x_A^S\right)$ and $\Delta_S^\ell = \bar{x}_M^{-1}\left(\tilde{x}_M\left(x_A^S\right)\right) = \left(\frac{x_M - M}{\epsilon_M} + 1\right)^{-1}$ and

$$x_A^S = \bar{x}_A\left(\Delta_S^\ell, \phi^\ell\left(x_A^S, \tilde{x}_M\left(x_A^S\right)\right), \phi^c\left(x_A^S, \tilde{x}_M\left(x_A^S\right)\right)\right),$$

recalling that $\bar{x}_A\left(\Delta^\ell, \phi^\ell, \phi^c\right) = \min\left\{H + \left(\frac{\left(1-\Delta^\ell\right) - \left(G\left(\phi^\ell\right) + G(\phi^c)\right)}{\Delta^\ell + \left(G\left(\phi^\ell\right) - G(\phi^c)\right)}\right) \cdot \epsilon_A, 1\right\}$. Now $\left(\frac{x_M - M}{\epsilon_M} + 1\right)^{-1}$ is bounded above by $\left(1 - \frac{M}{\epsilon_M}\right)^{-1}$ which in turn approaches 0 as $M \to -\infty$. Further, $\phi^\ell\left(x_A, \tilde{x}_M\left(x_A\right)\right)$ and $\phi^c\left(x_A, \tilde{x}_M\left(x_A\right)\right)$ are both bounded for all feasible values of $H \in \left(H - \frac{1-H}{\sqrt{1-p}}, 1\right)$

and $x_A \in (H,1]$. Thus, for sufficiently small M we have that

$$\left(\frac{\left(1-\Delta_S^\ell\right)-\left(G\left(\phi^\ell\left(x_A^S,\tilde{x}_M\left(x_A^S\right)\right)\right)+G\left(\phi^c\left(x_A^S,\tilde{x}_M\left(x_A^S\right)\right)\right)\right)}{\Delta_S^\ell+\left(G\left(\phi^\ell\left(x_A^S,\tilde{x}_M\left(x_A^S\right)\right)\right)-G\left(\phi^c\left(x_A,\tilde{x}_M\left(x_A\right)\right)\right)\right)}\right)\cdot\epsilon_A>1-H$$

in any equilibrium of the game with summary reversal for any feasible value of H. Finally, this implies that $\bar{x}_A\left(\Delta_S^\ell,\phi^\ell\left(x_A^S,\tilde{x}_M\left(x_A^S\right)\right),\phi^c\left(x_A^S,\tilde{x}_M\left(x_A^S\right)\right)\right)=1=x_A^S$, i.e., for sufficiently low M, the unique equilibrium of the game with summary reversal is "full pandering" ($x_A^S = 1$) for any feasible value of H.

Combining the preceding, for sufficiently low M we have that $\tilde{EU}_S^H-\tilde{EU}_N^H=$

$$2\left((1-p)(H)^2-(1-H)^2\right)+\frac{2}{\bar{k}}\left(\begin{array}{c}\Pr_S(d=\ell)\cdot\left(\phi^\ell\left(1,\tilde{x}_M(1)\right)\right)^2+\Pr_S(d=c)\cdot\left(\phi^c\left(1,\tilde{x}_M(1)\right)\right)^2\\-\Pr_N(d=\ell)\cdot\left(\phi^\ell(H,0)\right)^2\end{array}\right)$$

for any feasible value of H, where $\tilde{x}_M(1)=2H-1$. Now observe that $(1-p)H^2-(1-H)^2=0$ at $H=\frac{1}{\sqrt{1-p}+1}$. Thus, if the expression inside the parentheses following $\frac{2}{\bar{k}}$ is strictly negative evaluated at $H=\frac{1}{\sqrt{1-p}+1}$, then we have that the preceding expression approaches a number that is strictly negative as $H\to\frac{1}{\sqrt{1-p}+1}$, yielding the desired result (i.e., that we may select an M sufficiently low and H sufficiently close to $\frac{1}{\sqrt{1-p}+1}$ such that the higher court is strictly better off without summary reversal). To see that this is the case, observe that the expression inside the parentheses may be written as:

$$\frac{(1-H)^4}{4}\left(\frac{(1-p)^2}{\Pr_S(d=\ell)}+\frac{p^2}{\Pr_S(d=c)}\right)-\frac{H^4}{4}\frac{(1-p)^2}{\Pr_N(d=\ell)}.$$

Substituting in $H=\frac{1}{\sqrt{1-p}+1}$ and simplifying yields that this expression will be strictly negative i.f.f.

$$\frac{1}{\Pr_N(d=\ell)}>\frac{(1-p)^2}{\Pr_S(d=\ell)}+\frac{p^2}{\Pr_S(d=c)}.$$

Now the equilibrium probabilities are $\Pr_N(d=\ell)=p(1-H)+(1-p)=\sqrt{1-p}$ and $\Pr_S(d=\ell)=(1-p)2(1-H)=\frac{2(1-p)^{\frac{3}{2}}}{\sqrt{1-p}+1}$. Further it is straightforward to show that $\sqrt{1-p}\leq 1$ (which always holds) implies that $\Pr_S(d=\ell)\leq 1-p$, which then implies that $\Pr_S(d=c)\geq p$. Thus, to show the preceding condition it suffices to show the stronger condition

$$\frac{1}{\Pr_N(d=\ell)}>\frac{(1-p)^2}{\Pr_S(d=\ell)}+p.$$

Finally, substituting in the equilibrium probabilities yields $\frac{1}{\sqrt{1-p}} > \frac{\left(\sqrt{1-p}+1\right)\sqrt{1-p}}{2} + p$ which simplifies to $\sqrt{1-p} < 1$, which holds $\forall p > 0$. QED.