Executive vetoes as electoral stunts: a model with testable predictions*

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Abstract

The paper modifies Romer and Rosenthal's Agenda Setter Model to treat vetoes as deliberate position-taking exercises by elected officeholders, applying it to inter-branch negotiation in presidential systems. The model changes players' motivation, giving them preferences over the signals conveyed by their actions, in addition to standard preferences over policy (as Groseclose and McCarty 2001), while leaving information complete (unlike Cameron 2000). The model explains both veto and veto-override incidence, like Cameron, unlike Groseclose and McCarty. Analysis distinguishes executive stunts (vetoes triggering overrides) from assembly stunts (these do not). Ten hypotheses are derived, including some conforming with Cameron (more vetoes with divided government) and some not (more with proximal elections and with large parties able to override vetoes). Hypotheses do not necessitate ideal-point estimatesto so can be tested across a wide array of national and sub-national presidential systems.

> "Le veto suspensif... est une sorte d'appel au peuple. Le pouvoir exécutif, qu'on eût pu, sans cette garantie, opprimer en secret, plaide alors sa cause, et fait entendre ses raisons."
> —Alexis de Tocqueville, *De la démocratie en Amérique*[1]

Veto gates of one sort or another are found in all democracies (Lijphart 1999). Such "internal checks" to decision-making, in combination with the "external check" of periodic elections, remain the best-known formula to protect the rights of the citizenry against encroachments by government authority (Madison 1788). Because proposals disliked by a group controlling one veto gate are irremediably bound to fail, internal checks promote moderation and compromise between that and other groups. I will argue that vetoes can also be employed as publicity stunts: elected

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[1]"The suspensive veto... is a sort of appeal to the people. The executive power, which without that guarantee might be oppressed in secret, can then argue its case and make its reasons heard" (Tocqueville 1835:122).

representatives, executives and assemblies alike, utilize vetoes to capture the attention of distracted voters in their quest to survive in the electoral market. Put shortly, the internal check may be wielded to help clear the external one.

Analysis deals with the *exercise* of the veto. Classic discussions of the veto (eg, Hamilton 1788:446) as well as formal models (eg, Kiewiet and McCubbins 1988:730) underscore that you don't have to use the negative power to be influential. This is so due to anticipation: expecting a veto ought to be sufficient to take unacceptable proposals off the table, keeping only those over whom both parts agree in the agenda. But elected representatives can find themselves in a predicament when a veto on constituents' interests is anticipated in this manner, especially if the issue is electorally salient. Can a representative silently remove the item from the agenda and remain confident that voters will understand his or her quiescence? Such confidence is reasonable where voters are sophisticated enough to engage in counterfactual reasoning ("naturally, had this been proposed, it would've been killed!"). Elected representatives will have a much harder time explaining such passivity in a world, like ours, where voters have every good reason to ignore the vagaries of politics (cf. Downs 1957), more so if challengers exploit the issue in the campaign. Among rationally-ignorant voters, this paper argues, it makes political sense to present hopeless proposals (and, we will see, to issue hopeless vetoes as well). *Employing* the veto, as Tocqueville suggested, clarifies with actions beyond cheap words, what someone stands for and why he or she is unable to deliver.

The paper modifies Romer and Rosenthal's 1978 seminal Agenda Setter Model, proposing a version whose players are differently motivated. As a consequence, they will sometimes trigger vetoes or "electoral stunts." Politicians in the standard model are outcome-oriented, valuing policy alone. In the Stunting Setter they are also act-oriented, having preferences over the positions conveyed by their actions in addition to preferences over policy. Analysis shows that the results are driven by a motivation parameter α weighting the two components of preference, and that there is a range of values for α at which the new model can predict the exact same bargaining outcomes as the standard model. The Stunts model therefore retains the original Setter's explanatory power while also explaining veto and override incidence, which Setter cannot. I apply the Stunting Setter to the study of the legislative process in a presidential system, generating ten hypotheses that, given the present state of comparative data, can be tested in virtually any presidential system, at the national or sub-national level.

The argument proceeds as follows. Section 1 discusses two theories of veto incidence — bargaining ploys à la Cameron 2000 and electoral stunts à la Groseclose and McCarty 2001 — and the need for a new model of vetoes as electoral stunts. Section 2 presents the Stunting Setter model (which is formalized in a technical appendix) and section 3 discusses auxiliary assumptions needed to derive hypotheses testable across a wide range of presidential systems. Section 4 shows that some of these predictions on veto incidence appear to contradict those from Cameron's model, inviting to perform a test of the two theories. Section 5 concludes.

1 Explaining veto incidence: bargaining ploys and electoral stunts

There is substantial variance in executive veto incidence across presidential systems (Magar 2001). In some, legislative bargaining can proceed without experiencing a single veto for years, as in Mexico (1997-2000) or in North Carolina (1983-93). In others, the executive wields the veto as often as 5 or 6 dozen times a year, as in Brazil (1985-96) or New York (1983-93).

Despite their frequent occurrence in democracies worldwide, vetoes remain paradoxical from a theoretical perspective. There is no commonly accepted political theory of the veto. The main obstacle is that if one has a theory which predicts when a veto will occur and what the outcome will be, the parties can agree to this outcome in advance, and so avoid the costs of a veto. So why should such bargaining failures come about? Two explanations of veto incidence have been suggested: both argue that a veto is *not really* a failure in bargaining but indication that *bargaining of a different sort* is taking place (for a review of this literature, see Cameron and McCarty 2004).

One explanation is that vetoes are **bargaining ploys** devised by politicians who are shortsighted in their search for policy influence. Parties engaged in bargaining often cannot see exactly where each other's limits between "acceptable" and "unacceptable" legislation lie, and discover that a proposal is beyond limit the hard way, by triggering a veto. Cameron 2000 has suggested a distinctive form of negotiation called Sequential Veto Bargaining, where a party strategically exploits an asymmetry in information about its preferences: the stratagem consists of using the veto to convey an exaggerated image of recalcitrance and thus obtain larger concessions (see also McCarty 1997; Roth 1995:292).

The other explanation is that vetoes are really **electoral stunts**, acts devised to capture the attention of the voter for political gains. The veto, by this second line of reasoning, represents a form of inter-temporal bargaining. When a deal is hard to settle today, you can always try to replace an obstinate adversary with a more compromising one later. Elections offer periodic opportunities to accomplish this change at the other end of the negotiation table, letting the voters settle undecided disputes. Groseclose and McCarty 2001 have proposed a Blame Game model of inter-branch relations in which Congress forces the President to veto fiscally irresponsible policy that the electorate desires; an orthodox president pays an electoral penalty for deploying the veto (see also Indridason 2000).

Conley and Kreppel 2001 follow a middle road by arguing that both kinds of vetoes co-exist. Cameron demonstrated that incomplete information is a systematic component of veto incidence when he showed that concessions to the US president were often made after a veto between 1945 and 1992. Conley and Kreppel, however, find that most vetoes issued by US presidents between 1969 and 1998 fell on legislation for which the outcome of an override was quite certain a priori, allowing them to conclude that "these failed vetoes and override attempts were a kind of position-taking aimed at informing the public and building electoral support rather than affecting immediate legislative outcomes" (830).

The next section presents a model of vetoes as electoral stunts that differs from Groseclose and McCarty's in three significant ways. First, and most important, their model only lets the assembly perform electoral stunts (when it forces the executive to veto popular legislation); The Stunting Setter lets the executive engage in such behavior to her advantage (when she vetoes a proposal disliked by her constituents despite certainty that the veto will be overridden). The removal of this asymmetry conforms to reality while permitting a richer interaction between the branches of government in their use of electoral stunts.[2] Second, I also increase the model's explanatory power because the new model explains override incidence as well as veto incidence (overrides remain anomalous in their model as vetoes did in the standard model). By this account, the Stunting Setter formalizes Conley and Kreppel's veto typology, proposing conditions for two types of vetoes or stunts. Third, in their model both the assembly and the executive appeal to the same median voter, who then allocates rewards and penalties. Here the assembly represents one set of interests while the executive represents another, possibly different, set of interests. The more distinct are the rules by which legislators and executives are elected, the more important it may be to allow them to serve different electoral masters.

2 The model

The following set of logical premises define the Stunting Setter model and generate the results of the paper.

p1–Four players: Nature, player L ("he"), player E ("she"), and player V ("it"), moving in that order. Only the latter three receive payoffs and act strategically ("player i" always refers to one of them).

p2–A policy space: $x \in [0, 1]$ is a policy proposal in unidimensional space.

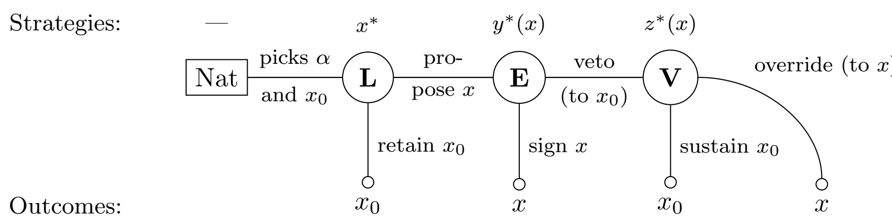
[2] This asymmetry forces Groseclose and McCarty (2001:111) to conclude that a consequence of any veto is a drop in presidential popularity (see also Prediction 18 from Cameron and McCarty 2004). Anecdotal evidence from the US (the case they model) provides a notable counterexample. In the 1995-96 budget standoffs, President Clinton's emphatic vetoes against the Republican majority's cuts are generally seen as paving the way for his 1996 reelection (LeLoup and Shull 1999).

p3–A preference profile: Player i has a unique ideal point $I \in [0,1]$ $(I = L, E, V)$ that he/she/it prefers to any other policy outcome in space.

p4–Three modes of play: Players can be in normal $(\alpha = 0)$, in campaign $(0 < \alpha < \tau)$, or in stunts-only $(\tau \leq \alpha \leq 1)$ mode. τ is a threshold derived endogenously.

p5–Sets of actions / strategies: A^{Nat}, A^L, A^E, and A^V are players' action sets; where
$A^{Nat} = \{(\alpha, x_0)\}$ (read as "choose $\alpha \in [0,1]$ and $x_0 \in [0,1]$");
$A^L = \{x_0, x\}$ (read as "retain x_0" or "propose $x \in [0,1]$");
$A^E = \{x_0, x\}$ (read as "veto to revert to x_0" or "sign x"); and
$A^V = \{x_0, x\}$ (read as "sustain x_0" or "override to retain x").
$a \in A^i$ is a generic action from player i's action set. Action sets are also strategy sets: x^*, $y^*(x)$, and $z^*(x)$ denote player L, E, and V's respective optimal strategies.

p6–A set of outcomes: $\omega \in [0,1]$ is the outcome of the game, it may take two values: player L's proposal $(\omega = x)$ or the status quo $(\omega = x_0)$. Actions and the order of play bring about outcomes as in the following game tree.



p7–Information: perfect, symmetric, certain, and complete (Rasmusen 1989:45-8).

p8–Payoffs: player i's goal is to maximize $u^i(\omega \mid a)$, the utility from outcome $\omega \in [0,1]$ given action $a \in A^i$; u^i is a linear combination of policy gains and the posture value:

$$u^i(\omega \mid a) = (1-\alpha)PolicyGain + \alpha PostureValue. \tag{1}$$

$PolicyGain$ are outcome-contingent payoffs (out^i) comparing the game's outcome and x_0:

$$PolicyGain = out^i(\omega \mid a) - out^i(x_0) \tag{2}$$

where

$$out^i(x \in [0,1]) = -|x - I|. \tag{3}$$

(a) Veto stunt by executive (veto x^* despite expected override)

(b) Stunt proposal by assembly (propose x^* although it will be killed)

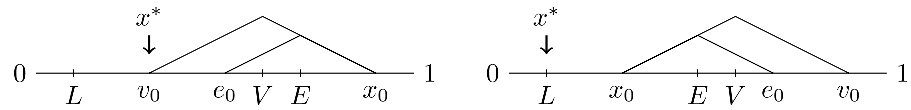


Figure 1: When to expect stunts (when $0 < \alpha < \tau$)

PostureValue are act-contingent payoffs (act^i) of choosing action a:

$$PostureValue = act^i(a) = -|a - I|. \tag{4}$$

If u^i cannot break indifference, player i arbitrarily chooses $a = x_0$.

By premise P1 the Stunting Setter is a game of policy for Nature and three players: a Leader of the assembly (represented as player L or “he”), an Executive (as player E or “she”), and a Veto-override pivot (as player V or “it”). Nature intervenes at the start by selecting one of three possible **modes of play** for the game — “normal” ($\alpha = 0$), ”campaign” ($0 < \alpha < \tau$), or ”stunts-only” ($\tau \leq \alpha \leq 1$) — and by producing a **status quo** (noted x_0) to which policy reverts in case of bargaining failure. Nature does not receive payoffs at the end of the game. Its choice of parameter α matters by establishing players’ *motivation*, what they go after in the game. τ is a cutoff value between two modes of play that varies with the conditions of the game and that is calculable.

Rules (portrayed in the game tree in p6) model decisions in presidential systems (cf Kiewiet and McCubbins 1988), where an assembly proposes legislation to the executive for her approval; if she chooses to veto, the assembly can attempt to override the veto by forming a new coalition (which typically requires a supermajority). In the model (by P1, P5, and P6) player L retains full control of the agenda, deciding whether or not to send proposal x; if player E rejects the offer then player V has the last word, choosing between x_0 and x.

Players negotiate outcomes on a one-dimensional policy space, as in the standard model. In accordance with the assumptions of the spatial theory of politics, everyone (by P3) has a unique, most-preferred policy or “ideal point” in space and relies on Euclidian distance to determine preference between any pair of policy outcomes: the one falling closer to (or preferably at) the ideal is always better, while those equidistant leave the player in a state of indifference. L, E, and V denote players’ respective ideal points in $[0, 1]$. Figure 1 displays two possible preference profiles, $L < V < E$ in panel (a), $L < E < V$ in panel (b).

Players other than Nature collect payoffs at the end of the game and are assumed to be instrumentally rational and strategic, picking the action maximizing individual payoffs that have two components (P8). Player i's motivation for policy is captured in the $PolicyGain$ term of u^i of Eq. 1: the difference in values for the outcome of the game and the status quo ($out^i(\omega \mid a)$ and $out^i(x_0)$ in Eq. 2). Player i's motivation for stunts, on the other hand, is captured in the $PostureValue$ term $act^i(a)$ of Eq. 1. I define both out^i and act^i as the negative of the Euclidian distance from player i's ideal point I ($I = L, E, V$) to the outcome ω of the game and to the action $a \in A^i$ chosen by player i, respectively (Eqs. 3 and 4). Each term is thus single-peaked and symmetric in space, reaching a maximum value at i's ideal point I. Player i's utility u^i is the weighted sum of out^i and act^i, letting the weight α adopt values between 0 and 1. The mode of play defines motivation. In the normal mode $\alpha = 0$ and therefore E1 becomes $u^i(\omega \mid a) = PolicyGain$ (players are outcome-oriented only). Dual motivation kicks in when $0 < \alpha < 1$. Since $\alpha = 0$ gives rise to very much the standard model and generates a standard result, I only discuss it through the example in panel a of Figure 1 in order to taste the flavor of the equilibrium and prepare the field for analysis of other values of α. (The Theorem in the appendix develops the full result; alternatively, see Cameron 2000:85-99).

Choosing an optimal move requires players to anticipate what will happen down the game tree. Outcome payoffs have a convenient symmetric shape that simplifies this exercise in foresight. As a result all players are indifferent between two outcomes that are equidistant from their respective ideal point. So when player L is choosing what proposal to send in panel a of Figure 1, he knows by this equidistance property that player E will find the outcome labeled e_0 as good as the status quo x_0, and will also find everything between these points preferable to x_0 (see Lemma 1 in the appendix). Player E will therefore sign any proposal below the triangle peaking at her ideal point E, and veto the rest. The same is true for player V: it will accept any outcome under the larger triangle of the figure and hence be willing to override a veto to such proposal (in order to reinstate it as the outcome of the game). With this knowledge player L's decision is simple: he should send the proposal below one of the triangles falling closest to L. In the example, a proposal slightly to the right of v_0 fulfils the conditions and is guaranteed to become law: she might be willing to veto this unacceptable proposal (it falls outside her triangle) but player V is certain to override the veto. If player L were lucky enough that L falls below one of these triangles, then he could even propose his ideal policy and get away with it.

Strategic anticipation of this sort generates the well-known result (formalized as Corollary 0 in the appendix) that conflict in the normal mode is never observable, it remains latent. In equilibrium when $\alpha = 0$, player E will under no circumstance veto any proposal. Purely outcome-oriented politicians play to bring policy closer to their ideal only. A veto does not achieve this, the credible threat of a veto suffices. It is only when Nature raises α above zero, and the $PostureValue$ term of u^i matters, that silent and unperceived policy influence will sometimes be accompanied by loud and perceivable vetoes.

Tensions can arise whenever players rely on two choice criteria. This happens, for instance, when signing a bill brings Player E a small *PolicyGain*, while vetoing the proposal reinstates x_0 (foregoing the policy gain) but conveys the message that she really favors more radical change. How many units of *PolicyGain* can she sacrifice to obtain a unit of $PostureValue$? It is the job of parameter α to solve this trade-off, larger values favoring acts, smaller ones favoring outcomes. In fact, α can always be small enough (given x_0, L, E, and V) to render the act-contingent term of payoffs systematically smaller in magnitude than the outcome-contingent term. Threshold τ is the limit between αs that are "small enough" in this fashion and those that are not. That is, if $0 < \alpha < \tau$ then $\alpha|PostureValue| < (1-\alpha)|PolicyGain|$, resolving any tension in favor of *PolicyGain*. The Theorem in the appendix solves the model for all values of α ; results and hypotheses in the text are drawn from a version where Nature will be constrained to sample α in such way that it is always as small as needed to eliminate possible tensions between the two components of utility (ie, below τ). This small-α constraint, I show below, is relevant for player L's actions and in some circumstances only, so it is not as restrictive as it sounds. In addition I will discuss how predictions change (slightly) if the assumption is removed.

A small α turns the $PostureValue$ term of u^i into a pure tie-breaker, a secondary criterion for choice when the *PolicyGain* term remains indecisive (see Eq. 7 in the appendix). Players are free to choose actions from binary sets (P5): player L can propose ($a = x$) or not ($a = x_0$); player E can sign ($a = x$) or veto ($a = x_0$); and player V can override ($a = x$) or sustain a veto ($a = x_0$). They don't necessarily have the same freedom in choosing the outcome of the game, someone down the game tree may change that choice. Depending on the preference profile and the relative location of x_0, there will be games where players "always get what they choose" (formally, $\omega = a \,\forall\, a \in A^i$), others where they do not. Located in a terminal node of the game tree, player V is privileged in this respect, it "always gets what it chooses". Player L and player E are not. She only "always gets what she chooses" if player V is certain to sustain the veto: when she signs ($a = x$) she gets the proposal ($\omega = x$), when she vetoes ($a = x_0$) she gets the status quo ($\omega = x_0$). But when player V is certain to override, she gets the proposal regardless of how she acts (formally $\omega = x \,\forall\, a \in A^E$). Player L only "always gets what he chooses" if she is sure to sign the proposal or player V is sure to override a veto: when he proposes nothing ($a = x_0$) he gets the status quo ($\omega = x_0$), when he proposes x ($a = x$) he gets x ($\omega = x$). But when she is certain to veto and player V is certain to sustain, he gets the status quo regardless of whether he proposes or not (formally $\omega = x_0 \,\forall\, a \in A^L$).

"Always getting what you choose" simplifies decisions because the outcome and action criteria point in the same direction. Not "always getting what you choose," however, puts players in a state where they cannot decide how to act from judging outcomes. In that situation both player's actions lead to the same outcome, implying that $out^i(\omega \mid a = x) = out^i(\omega \mid a = x_0)$, and hence generate the same $PolicyGain$. It is in this situation that the small-α $PostureValues$ provide the auxiliary criterion for choice. Players in this state of indecisiveness (and, because α is small, only in this state) choose the action closest to their ideal policy, as per equation 4.

So under the simplifying small-α assumption, an actual veto only adds welfare to players from an act-contingent source (cf Tocqueville), leaving the outcome of the standard game untouched (cf Romer and Rosenthal). We can expect a veto in two general circumstances. One is when player V joins player L to impose a new outcome that she dislikes (panel (a) of Figure 1). Her veto will not impede policy change (it is overridden) yet signals her dislike for this change. The other is when player V joins player E to prevent policy change wished by player L (illustrated in panel (b) of Figure 1). He cannot produce desired outcomes (to the left of x_0), but can send a hopeless proposal (at his ideal, $x^* = L$) to signal his will for change, even though the status quo will remain in place. Although the two circumstances are observationally equivalent (both produce a veto), the expected fate of an override attempt permits us to distinguish two different types of vetoes: assembly stunts and executive stunts.[3]

I now draw results from the small-α game's way of play for variable preference profiles and status quos. A **way of play** consists of an equilibrium proposal, an equilibrium outcome, an equilibrium path of play from initial to a terminal node in the game tree, and an equilibrium threshold τ. The path in some ways of play involves vetoes but not in others, so this analysis supplies predictions on veto and override incidence. Holding $L \leq E$ (to economize, results are symmetric otherwise) there are three preference profiles that deserve consideration: (I) $V \leq L \leq E$; (II) $L < V < E$; and (III) $L \leq E \leq V$. Analysis proceeds by letting x_0 adopt different positions in $[0, 1]$ in each profile, taking note of the resulting way of play.

Figure 2 summarizes ways of play by breaking the policy space, one profile at a time, into mutually exclusive and exhaustive segments or **zones** labeled $z_1, z_2, \ldots, z_{12}$. For our purpose, their central property is that the set of status quos within each of the zones triggers a distinctive way of play, different from that triggered by status quos in the contiguous zone(s). I will be interested in grouping together zones whose way of play does not involve the use of the veto (ie the path of play is either 'propose-sign' or 'propose nothing'); zones with ways of play inducing a veto that

[3]Assembly stunts correspond to Conley and Kreppel's "type I" vetoes (those on bills originally passed by partisan votes, bound to be sustained) while executive stunts correspond to their "type III" vetoes (those on bills passed by large bipartisan coalitions, bound to be overridden). They only consider type IIIs to signal a position-taking motivation, not type Is.

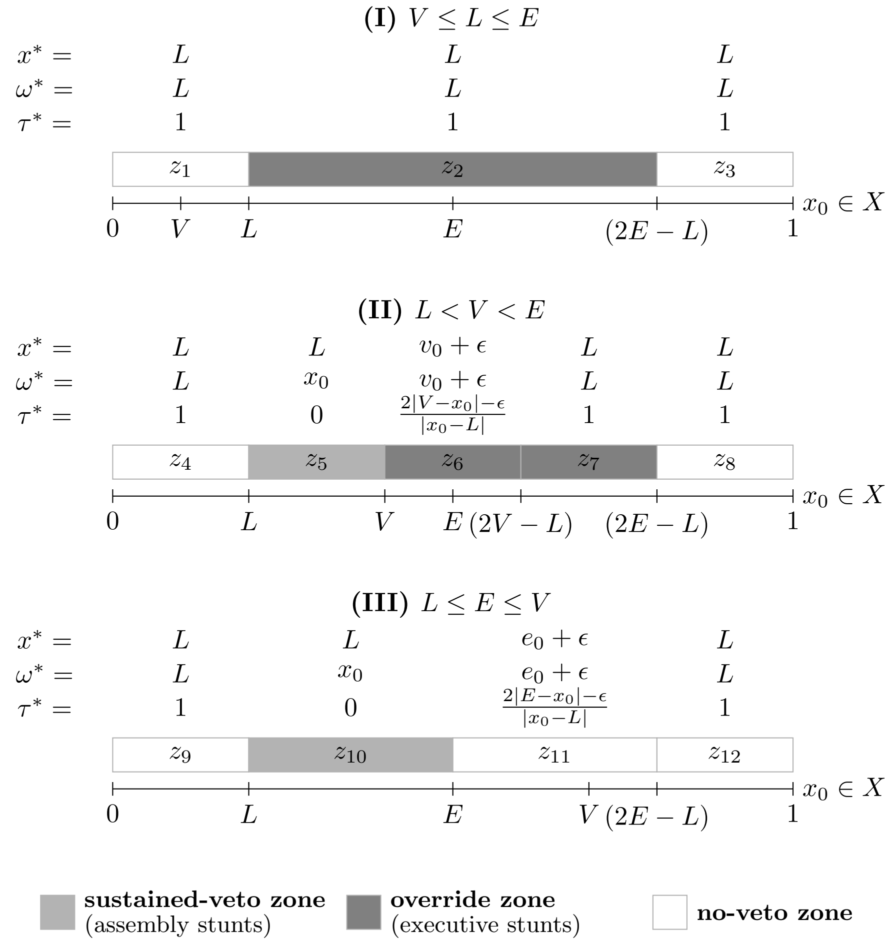


Figure 2: How the location of x_0 changes veto predictions when $0 < \alpha < \tau$. Panels portray three preference profiles, showing discrete zones where a given $x_0 \in X$ prompts a specific equilibrium proposal (x^*), equilibrium outcome (ω^*), and equilibrium threshold (τ^*).

is sustained (path: 'propose-veto-sustain'); and zones with ways of play triggering a veto and an override (path: 'propose-veto-override').

Consider zone z_1. When x_0 belongs in z_1 then it is also the case that $x_0 < L < E$. So proposal $x = L$, by shifting policy rightward and toward player E's ideal point, will in fact bring her some *PolicyGain* over x_0. In equilibrium she will therefore sign this proposal. The way of play associated with $x_o \in z_1$ includes the following triad: proposal $x^* = L$; outcome $\omega^* = L$; and path propose-sign (I discuss threshold τ^* below). The game will follow the same equilibrium path when $x_0 \in z_3$: again, x_0 happens to be so far from her ideal that she is better-off letting him impose his own ideal policy. Repeating the analysis for the remaining two preference profiles produces the following result (see Corollary 1 in the appendix).

Result 1 (The no-veto zone) *When players are in campaign mode ($0 < \alpha < \tau$) and $L \leq E$, the no-veto zone for profile (I) is $z_1 \cup z_3$; for (II) it is $z_4 \cup z_8$; and for (III) it is $z_9 \cup z_{11} \cup z_{12}$.*

Knowledge of the whereabouts of the (corresponding profile's) no-veto zone lets us predict that whenever Nature chooses an x_0 belonging in it, he will make a proposal that she will invariably sign. The next result follows trivially from this one. Corollary 1 in the appendix (the formal version of Result 1) is an if-and-only-if statement, implying that any game with a status quo *not* belonging in the no-veto zone *will involve the use of the veto*. That is, whenever x_0 belongs in one of the non-white zones of Figure 2, players will consistently follow an equilibrium path involving an executive veto (see Corollary 2 in the appendix).

Result 2 (The veto zone) *When players are in campaign mode ($0 < \alpha < \tau$) and $L \leq E$, the veto zone for profile (I) is z_2; for (II) it is $z_5 \cup z_6 \cup z_7$; and for (III) it is z_{10}.*

Distinguishing executive from assembly stunts further refines predictions. Consider zone z_5 now. When x_0 belongs here it is also true that $L < x_0 < V < E$. So any improvement for player L (a leftward shift in policy) is perforce unacceptable to the other two (they wish rightward shifts) who will join forces to preserve x_0, threatening a sustained veto. The case is analogous to panel (a) of Figure 1, and the assembly leader performs a stunt by proposing his (hopeless) ideal policy that will, in fact, be killed. The equilibrium path when $x_0 \in z_5$ is therefore 'propose-veto-sustain', and z_5 forms the **sustained veto zone** of profile II. (It is easy to verify that $x_0 \in z_{10}$ has the same equilibrium path.) Consider z_7 now. When x_0 belongs here it is also true that $(2V - L) < x_0$ (L is closer than x_0 to V) so player V accepts proposal $x = L$, rendering it veto-proof. And it is also true that $x_0 < (2E - L)$ (x_0 is closer than L to E) making her dislike the equilibrium proposal of the corresponding way of play. The case is analogous to panel (b) of Figure 1. This time it will be the executive who performs the stunt, sending the game onto path 'propose-veto-override'. The equilibrium path of play when $x_0 \in z_6$ is exactly the same (although the way of play is different in its equilibrium proposal and outcome, as can be read in Figure 2), which leaves $z_6 \cup z_7$ as profile II's **override zone**. Generalizing the arguments in this paragraph to the other profiles produces the next result (see Corollaries 2 and 3).

Result 3 (The override and sustained-veto zones) *When players are in campaign mode ($0 < \alpha < \tau$) and $L \leq E$, the veto zone can be broken into two mutually exclusive and exhaustive subsets: the override zone for profile (I) is z_2; for (II) it is $z_6 \cup z_7$; for (III) it is empty; the sustained-veto zone for profile (I) is empty; for (II) it is z_5; for (III) it is z_{10}.*

Results 1, 2, and 3 were derived under the simplifying small-α assumption that shrinks $PostureGain$ as much as needed to eliminate the possibility of conflict with $PolicyGain$. One question arises naturally. How small does α need to be for results to hold, what is the value of the threshold τ required for $0 < \alpha < \tau$ to remain this small? I answer it in two steps. Note that, when it comes to position-taking, player L's agenda setting power gives him an advantage not enjoyed by other players. When the goal is to take a position dear to voters, player L can propose $x = L$, thus showing the exact location of his ideal. The other two can only show relative preference between the alternatives they are offered, x and x_0, not the exact location of their ideal point (unless, of course, one alternative falls on their ideal point). So regardless of whether players E and V are deciding with the $PolicyGain$ (at low αs) or with the $PostureValue$ element of utility (at high αs), the choice criterion remains the same: between x and x_0, choose the one closer to your ideal point. Each behaves identically under any $0 < \alpha \leq 1$. So for $\tau = 1$ players E and V.

Player L's different circumstance requires consideration of three cases. First, when obtaining $\omega = L$ is impossible but getting some $PolicyGain > 0$ through a compromise proposal is feasible (as when x_0 belongs in z_6 or z_{11}), he can sacrifice the deal and get maximal $PostureValue$ instead by proposing $x = L$. τ divides αs making player L's $PolicyGain$ predominate and αs making his $PostureValue$ predominate (we can compute τ's precise value with Eq. 8 from the appendix). Second, when obtaining $\omega = L$ is feasible (as when x_0 belongs in $z_1, z_2, z_3, z_4, z_7, z_8, z_9$, or z_{12}) then $PolicyGain$s and $PostureValue$s converge on the same choice and he behaves the same way under any $0 < \alpha \leq 1$ (ie $\tau = 1$). Third, when getting any $PolicyGain > 0$ is impossible (as when x_0 belongs in z_5 or z_{10}) then no α short of zero will impede him from using $PostureValue$s to choose an action (ie $\tau = 0$). The resulting τs appears in Figure 2.

How do predictions change by removing the small-α constraint? This can only affect player L's behavior, and only when he has to make concessions to make an outcome veto-proof. If $\tau < \alpha \leq 1$ when $x_0 \in z_6$ or $x_0 \in z_{11}$, then player L chooses by $PostureValue$s proposing $x = L$ instead of the feasible compromise. When $x_0 \in z_6$ the consequence is that the veto is sustained instead of overridden; when $x_0 \in z_{11}$ the proposal will be vetoed (and the veto sustained) instead of accepted by her. So the removal of the small-α assumption has mild consequences for predictions, reducing the size of the override zone while leaving the veto zone unaffected in profile II, increasing the size of the sustained-veto zone in profile III. In sum, vetoes become more frequent and overrides less frequent when $\alpha > \tau$. The tiniest drop of posturing motivation suffices to change equilibrium behavior, bringing about vetoes and overrides.

3 Empirical implications

Given the elements of the model we have discussed, one straightforward test would rely on estimates of players' preferences and the status quo in space. Methodologies to obtain these estimates are being refined (Jackman 2000; Poole and Rosenthal 1985) and data made publicly available for a growing, but still limited, number of assemblies in presidential systems, including the US, Argentina (Jones and Hwang 2005), and Chile (Londregan 2000). I will discuss instead the steps needed to perform a less straightforward test of the Stunting Setter across a wide scope of cases. The test relies on party labels, a common indicator of preference, instead of ideal point estimates, but requires some auxiliary premises to produce empirical implications of the theory.

One auxiliary premise turns the status quo into a random variable drawn from a common-knowledge probability density. The interpretation of this change is that players, instead of observing a single realization of Nature's choice of x_0 at the start of the game, can infer its likely location in the policy space from the density function. For simplicity, I will assume a uniform probability density: $x_0 \sim u(0,1)$; but the argument extends to any continuous density with positive support in $[0,1]$. Results 1, 2, and 3 carry on to a setting considering all possible locations of $x_0 \in [0,1]$ simultaneously, extending into precise predictions of veto and override probabilities. Refer back to profile I of Figure 2 to illustrate. A veto will not take place when $x_0 \in z_1 \cup z_3$, but will when $x_0 \in z_2$. It follows that the probability of a veto in profile I is the probability that $x_0 \in z_2$:

$Pr[y^*(x^*) = x_0 \mid V \leq L \leq E] = Pr[x_0 \in z_2]$ (E9).

The assumption that x_0 is uniformly distributed provides the means to compute E9:

$Pr[y^*(x^*) = x_0 \mid V \leq L \leq E] = 2E - L - L = 2(E - L)$ (E10).

Probabilities of vetoes and overrides can be computed likewise for any preference profile.

We are now in a position to analyze the model's comparative statics, better than equilibria for testing. Notice first that in profiles I and II of Figure 2 ideal point L delimits the veto zone on its left and $2E - L$ on its right; and that in profile III the limits of the veto zone are ideal points L on the left and E on the right. In all three cases the size of the veto zone (which, by E9, we know is proportional to the probability of a veto) will depend directly on the distance $\|L, E\|$. That is, a veto becomes more (less) probable as E is farther from (closer to) L.

Notice next how moving V has a more complex effect on the veto zone: depending on the preference profile (I, II, or III) $V \in [0,1]$ will produce different effects on the size of the veto zone. On the one hand, moving V will have no effect on the width of the veto zone so long as it remains confined, in its drift, to the bounds of a given preference profile — ie, so long as V does not "jump over" any other player's ideal point. Refer to Figure 2 and imagine V slides along $[0,1]$ to show this. First, V in profile I is outside (to the left of) the corresponding veto zone, whose size remains unaffected by whether V is closer to or farther from its left bound (L). This remains true so long as V does not jump over this left bound, which would bring us into profile II (from $V \leq L \leq E$ into $L < V < E$). Second, V in profile II lies within the bounds of the veto zone, dividing the latter into a sustained-veto zone and an override zone. Pulling V towards L will increase the share of overrides, pulling V towards E will decrease it; in any case, the outer bounds of the veto zone itself will remain unchanged. Lastly, any V in profile III lies outside (to the right of) the veto zone, again leaving its size unaffected.

On the other hand, V has a substantial effect on the veto zone when it changes from any slot to the right of E to any slot to the left of E (ie, when V "jumps over" E, changing from profile III to profile II or from profile III to profile I). This effect is visible in Figure 2: the veto zone in profiles I and II is twice the size of the veto zone in profile III, holding L and E fixed. In profiles I and II the agenda setter makes concessions (if necessary) to player V, whose preferences are more congenial than player E's, rendering a veto threat harmless policy-wise, but pushing her to perform stunts. The situation is different in profile III, where the agenda setter targets player E with concessions (if necessary), offering her some gain the she will never refuse (regardless of α, as discussed above).

The effect of V on the veto zone and the probability of a veto is therefore discontinuous. The size remains constant so long as V does not jump over E in its slide along $[0,1]$. It experiences a substantial, discrete drop (increase) in size when V jumps over E to its right (left).[4] One implication of this, somewhat complex, effect is that the veto zone never shrinks in size as V gets closer to L. The following result puts together the comparative statics uncovered so far.

Result 4 (The incidence of vetoes) *When players are in campaign mode and $L \leq E$, the probability of a veto given a random status quo is inversely proportional to L, directly proportional to E, and never directly proportional to V. Formally, letting r stand for the incidence rate of vetoes over N proposals:*

$$\frac{\delta r}{\delta L} < 0; \frac{\delta r}{\delta E} > 0; \text{ and } \frac{\delta r}{\delta V} \leq 0.$$

In the context of individual proposals, a higher veto incidence rate implies a higher probability that a randomly chosen proposal is vetoed; in the context of a large number of proposals, it implies a larger number of vetoes.

In the case of overrides, all three ideal points (not just V) interact with the preference profile to produce an effect. Under profile I, the override zone shrinks

[4]In a preliminary analysis (Magar 2001:66) I failed to see the interactive effect of the profile and V, wrongly concluding that the latter has no effect on the size of the veto zone.

as L moves rightward; it grows as E shifts rightward; and it is unaffected by V. Under profile II, it is unaffected by L; it grows as E slides rightward; and it shrinks as V moves rightward. Under profile III, the override zone is empty, hence remains unaffected by L, E, and V. Finally, when V jumps over to E's right there is a discrete drop in the size of the override zone, as in the previous paragraph. The next result puts together this second set of comparative statics.

Result 5 (The incidence of overrides) *When players are in campaign mode and $L \leq E$, the probability of an override given a random status quo is never directly proportional to L, is never inversely proportional to E, and is never directly proportional to V. Formally, letting s stand for the incidence rate of overrides over M vetoes:*

$$\frac{\delta s}{\delta L} \leq 0; \frac{\delta s}{\delta E} \geq 0; \text{ and } \frac{\delta s}{\delta V} \leq 0.$$

Turning Results 4 and 5 into testable hypotheses requires measures of *change in preferences*. Indicators of relative preferences (where is L vis-à-vis E; where is L vis-à-vis V) will suffice. And partisan theories of politics (Aldrich 1995; Cox and McCubbins 1993; Rohde 1991) suggest a simple and common mapping of the party status of the branches of government to these relative positions. One auxiliary assumption will be that the partisan status of the branches affects distance $\|L, E\|$: under divided government (when her party does not have majority status in the assembly) it is never smaller than under unified government (when it does). Combining this assumption with Result 4 and Result 5, generates the first testable hypothesis on veto and override incidence.

Hypothesis 1 (The Divided Government Surge) *All else equal, (a) veto incidence is higher and (b) override incidence is never lower when government is divided than when it is unified. Formally, if d is a binary variable (equal to 1 when the executive's party does not have majority status in the assembly; 0 otherwise), then*

$$(a) \frac{\delta r}{\delta d} > 0; \text{ and } (b) \frac{\delta s}{\delta d} \geq 0.$$

Hypothesis 1b's greater than or equal sign (inherited from Result 5 and absent from 1a) indicates that $d = 1$ is a sufficient condition for vetoes to surge but not for overrides to surge. All else equal, variables d and r should be more strongly associated than d and s.

Next, I rely on the size of the majority party in the assembly to approximate the degree of similarity between L and V preferences. Although party labels are far from guaranteeing perfect cohesion among members, they do increase discipline significantly, especially in votes that party leaders care the most for (Cox and McCubbins 2005). Player L, the majority party leader, should be likelier to exert influence on player V when player V belongs to his party than when it does not.

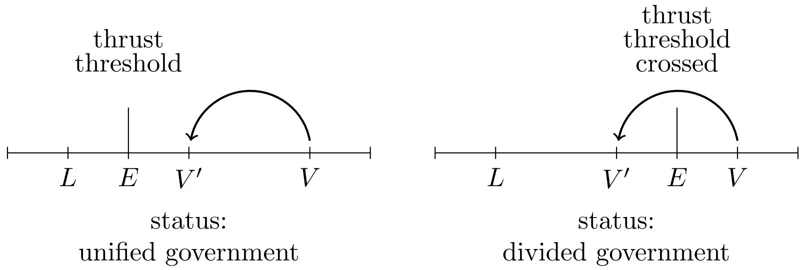


Figure 3: The size-and-status interaction

The auxiliary assumption in this case will be that the size of the majority party in the assembly affects the distance $\|L, V\|$: when the party in control of the assembly has a majority below override level it is never smaller than when it is at or above override level.

Hypothesis 2 (The Supermajority Thrust) *All else equal, (a) veto incidence and (b) override incidence are never lower when the majority party in the assembly is above override level than when it is not. Formally, if o is a binary variable (equal to 1 when the majority party's share of seats is at or above that required to override; 0 otherwise), then*

$$(a)\ \frac{\delta r}{\delta o} \geq 0;\ and\ (b)\ \frac{\delta s}{\delta o} \geq 0.$$

The interactive effect of the location of $V \in [0, 1]$ and the preference profile discussed above generates the next prediction. If, as assumed, divided government puts E farther away from L, while being above override level brings V closer to L, then the thrust effect of supermajorities is likelier to kick-in when government is divided than when it is unified. To see why, consider that a consequence of increasing the size of the majority party in the assembly is that V will shift closer to L (Figure 3 portrays this as a shift from V to V'). When government is unified (with E closer to L than to V) the jump to V' needed to pass over the "thrust threshold" (ie ideal point E) is quite long. On the contrary, when government is divided (when E is closer to V than to L) a shorter jump suffices, thereby further increasing veto incidence.

Hypothesis 3 (The Size-and-Status Interaction) *All else equal, (a) the Supermajority Thrust on veto incidence (from Hypothesis 2a) and (b) on override incidence (from Hypothesis 2b) are likelier under Divided than under Unified Government. Formally,*

$$(a)\ \frac{\delta(r \mid d = 0)}{\delta o} \leq \frac{\delta(r \mid d = 1)}{\delta o};\ and\ (b)\ \frac{\delta(s \mid d = 0)}{\delta o} \leq \frac{\delta(s \mid d = 1)}{\delta o}.$$

The auxiliary assumption for the next hypothesis is that motivation has an electoral component, Nature picking larger αs (and hence being also is less likely to pick $\alpha = 0$) in games more proximal to the next election than in less proximal ones. Remember that player E will only use her veto when not playing in normal mode ($\alpha \neq 0$). And since vetoes are necessary for overrides, these will only be seen when α rises above zero. Remember next that, due to the change in player L's behavior induced by larger αs, veto incidence increases when the small-α condition no longer holds. And we know that the effect of $\alpha \neq 0$ on override incidence is cancelled when α grows above τ (so override incidence drops again).

Hypothesis 4 (The Electoral Pulse) *All else equal, (a) the incidence of vetoes increases and (b) the incidence of overrides first increases then decreases as the next election gets closer. Formally, if p measures the Proximity to the next election, then*

$$(a)\ \frac{\delta r}{\delta p} > 0 \ and\ (b)\ \frac{\delta^2 s}{\delta p^2} \leq 0.$$

We get another hypothesis by controlling for bicameralism. Portraying assemblies as unitary actors (as most of the literature does) may be inappropriate when an upper legislative chamber of the assembly can veto proposals before the executive gets a chance to do so. Assuming that split partisan control of the chambers of a bicameral assembly depresses legislative productivity (player L choosing to 'retain x_0' more often than when the assembly is unified), player E will get fewer chances to veto.

Hypothesis 5 (The Divided Assembly Slump) *All else equal, when a party does not have majority status in both chambers of a bicameral assembly (a) the incidence of executive vetoes and (b) of overrides decreases relative to situations where a party does (or unicameral assemblies). Formally, if c is a binary variable (equal to 1 when the same party controls both houses; 0 otherwise), then*

$$(a)\ \frac{\delta r}{\delta c} < 0 \ and\ (b)\ \frac{\delta s}{\delta c} < 0.$$

4 Ploys v. Stunts re-examined

This short section pits some predictions of vetoes as bargaining ploys and some of vetoes as electoral stunts. A more rigorous comparison of the theories, with a more complete set of predictions is in order, but I offer some initial steps.

Of four predictions of the Stunting Setter that I will discuss, two are shared by Cameron's theory, as summarized in Table 1. Both theories predict that the probability of a veto augments with divided government (Cameron 2000:152-77; also Prediction 5 of Cameron and McCarty 2004). This intuitive prediction is also in line with Groseclose and McCarty's, and conforms to the findings of the

Table 1: CONTRASTING PREDICTIONS WITH CAMERON'S

	Its effect on veto incidence from the theory of vetoes as		
Condition	electoral stunts		bargaining ploys
divided government	INCREASE	=	INCREASE
majority above override level	INCREASE	≠	DECREASE
election proximity	INCREASE	≠	DECREASE
split assembly	DECREASE	=	DECREASE

empirical literature (eg Lee 1975). And since both theories treat the assembly as a unicameral body, the divided assembly control extends with the same prediction: split assemblies reduce the incidence of vetoes.[5]

We make opposite predictions on the effect of a majority above override level. The causal mechanism in models of vetoes as bargaining ploys is incomplete information on the exact location of other players' ideal points. In one version of Cameron's model (the Override game) this leaves room for the assembly leader's proposal to fall short of the concessions to player V necessary to render a bill veto-proof (see Cameron 2000:99). The likelier it is that a veto might be sustained, the more tempting it becomes for the executive to veto legislation she dislikes: it becomes likelier that the status quo will subsist. Based on the discussion above, it seems reasonable to expect a veto to be overridden with *higher certainty* when the majority party in the assembly is above override level than when it is below. The implication from Cameron's perspective is that veto incidence should be *depressed* under such circumstances, contrary to my prediction (see Prediction 6 in Cameron and McCarty 2004).

Contrary predictions arise as well on the effect of a proximal election. In another version of Cameron's model (the Sequential Veto Bargaining game), the assembly cannot draw a precise line between bills the executive finds acceptable and unacceptable (106). Information asymmetry gives the executive strategic advantage. By vetoing otherwise acceptable policy, she can cultivate a reputation for toughness and, with some probability, harvest bigger concessions in future bargaining. The less the assembly knows about the executive's preferences, the more attractive vetoes as bargaining ploys become. Upon inauguration of a new executive, or immediately after new members of the assembly are sworn in, the leader has the least experience contrasting the branches' relative preferences. The start of a session would therefore seem to provide the most fertile soil for vetoes as reputation-building ploys. Experience then takes care of reducing information asymmetries, leaving less room for veto bargaining towards the end of a legislative term, when the next election approaches. Although Cameron does not discuss this, it seems reasonable to expect,

[5]Cameron (2000:138) predicts that split assemblies increase override incidence but remains silent about veto incidence.

from his model, that veto incidence will drop as elections draw closer (contrary to my prediction). His prediction should be reinforced by the executive's diminishing need to build a reputation as the session draws to an end (Prediction 13 in Cameron and McCarty 2004).

Many of Cameron's hypotheses deal with "veto chains", vetoes followed by concessions to satisfy the executive. A veto chain in his model is part genuine mistake (too few concessions in round 1) and part bluff (to get more concessions in round 2). The Stunting Setter can be extended to generate veto chains without uncertainty by letting round n to inherit round $n-1$'s status quo and players have memory. A mechanism decreasing αs ($\alpha_n < \alpha_{n-1}$) would explain concessions.

5 Conclusion

This argument adds to a tradition showing the versatility and explanatory power of Romer and Rosenthal's Agenda Setter model. In one respect, this paper has shown that the standard model is not robust to even small modifications in the assumption on politicians' motives. Add the tiniest amount of posture payoff (letting players signal dislike for policy change by generating observable conflict or "stunts") and vetoes, as well as veto-overrides, become part of equilibrium behavior. But in another, and more important respect, the standard model proves to be very robust. Motivation for stunts, even when added in large amounts, has mild effects on the predictions of bargaining outcomes (the status quo has a few more chances of survival in the Stunting Setter than in the standard model). Given the large body of empirical work confirming the standard model's power to explain observed bargaining (eg Cox and McCubbins 2005; Dion and Huber 1996; Gerber 1996; Kiewiet and McCubbins 1988; Krehbiel 1998), it is most important that the proposed model makes similar policy predictions. It is even possible to generate the exact standard predictions by relying on a "small-α" assumption that players will never sacrifice feasible policy gain for the sake of a stunt. Risk aversion — making politicians value smaller gains in policy today more than larger, but less probable gains tomorrow — comes in support of the small-α assumption. Veto stunts are, after all, a form of inter-temporal bargaining with risk: if successful, they provide a stronger bargaining stand after the election; they may also fail, weakening the bargainer in the future.

Testing the Results of the Stunting Setter is quite straightforward using ideal point-estimates with roll-call votes, such as Poole and Rosenthal's D-NOMINATE scores. But it is still rare to find such evidence for many presidential systems over long periods. For this reason, the paper has introduced auxiliary assumptions to draw hypotheses that can be tested with information that is readily available for a large number of presidential polities, at both the national and sub-national levels.

6 Technical appendix

Two Definitions, a Lemma and a Theorem generate the results in the paper.

Definition Let $e_0, v_0 \in [0,1]$ be player E and player V's respective **cutting point**, where

$$e_0 = 2E - x_0 \quad and \quad v_0 = 2V - x_0. \tag{5}$$

Definition Let $\wp^E$ and $\wp^V$ be player E and player V's respective **preferred-to sets**, where

$$\wp^E = \begin{cases} (x_0, e_0) & if\ x_0 \leq e_0 \\ (e_0, x_0) & if\ x_0 > e_0 \end{cases} \quad and \quad \wp^V = \begin{cases} (x_0, v_0) & if\ x_0 \leq v_0 \\ (v_0, x_0) & if\ x_0 > v_0. \end{cases} \tag{6}$$

Lemma 1 *Player i outcome-prefers outcomes contained in his/her/its preferred-to set (Eq. 6) to the status quo, finds his/her/its cutting point (Eq. 5) outcome-equivalent to the status quo, and outcome-prefers the status quo to outcomes outside his/her/its preferred-to subset. Formally:*

$$out^i(\omega \mid \omega \in \wp^i) > out^i(x_0) = out^i(i_0) > out^i(\omega' \mid \omega' \notin \wp^i).$$

Proof Consider player E. Given that (1) by Eq. 3 $out^E(\omega)$ is single-peaked and symmetric around E; that (2) by Eq. 5 E lies at the center of $\wp^E$; and (3) that by definition the extremes of $\wp^E$ are outcome-equivalent for player E, it follows that no point outside $\wp^E$ produces higher outcome-payoff than any point contained in $\wp^E$ (all are further away from E, which by Eq. 2 means a lower outcome-payoff). Because x_0 strictly delimits $\wp^E$, it is closer to E (and by Eq. 2 it produces higher outcome-payoff) than any point outside $\wp^E$ except e_0; for the same reason any point within the bounds of $\wp^E$ is closer to E (and by Eq. 2 it produces higher outcome-payoff) than x_0. Because outcome payoffs are defined in the same way for player L and for player V, this extends to any player i. ∎

Theorem 1 (The equilibrium of the SWS game) *Letting x^* be player L's optimal proposal, $y^*(x)$ and $z^*(x)$ be player E and V's respective best replies to proposal x, $\epsilon > 0$ an infinitesimally small number, the following set of strategies and threshold τ^* define the sub-game perfect equilibrium of the game when $L \leq E$ (otherwise the result is symmetric):*

$$x^* = \begin{cases} L & \textit{if } x_0 < L \textit{ or } \min(e_0, v_0) \leq L \\ & \textit{or } \{L < x_0 < \min(e_0, v_0) \ \& \ 0 < \alpha < \tau\} \\ & \textit{or } \tau < \alpha \leq 1 \\ \min(e_0, v_0) + \epsilon & \textit{if } L < \min(e_0, v_0) \leq x_0 \ \& \ 0 < \alpha < \tau \\ x_0 & \textit{if } L < x_0 < \min(e_0, v_0) \ \& \ \alpha = 0 \end{cases}$$

$$y^*(x) = \begin{cases} x \quad (\textit{`sign'}) & \textit{if } \{x \in \wp^E \cup \wp^V \ \& \ \alpha = 0\} \\ & \textit{or } \{x \in \wp^E \ \& \ 0 < \alpha < \tau\} \\ x_0 \quad (\textit{`veto'}) & \textit{otherwise} \end{cases}$$

$$z^*(x) = \begin{cases} x \quad (\textit{`override'}) & \textit{if } x \in \wp^V \\ x_0 \quad (\textit{`sustain'}) & \textit{otherwise} \end{cases}$$

$$\tau^*(x) = \begin{cases} 0 & \textit{if } L \leq E \leq V \ \& \ \{L < x_0 \leq V \textit{ or } 2V - L \leq x_0 \leq 2E - L\} \\ & \textit{or } L \leq x_0 \leq E \leq V \\ \frac{2|E - x_0| - \epsilon}{|x_0 - L|} & \textit{if } L \leq E \leq V \ \& \ E \leq x_0 \leq 2E - L \\ \frac{2|V - x_0| - \epsilon}{|x_0 - L|} & \textit{if } L < V < E \ \& \ V \leq x_0 \leq 2V - L \\ 1 & \textit{if } V \leq L \leq E \textit{ or } x_0 \leq L \textit{ or } 2E - L \leq x_0. \end{cases}$$

Proof The equilibrium concept is sub-game perfection, attainable with backwards-induction. Consider first the case where $\alpha = 0$ and only the outcome terms of utility in Eq. 1 need to be analyzed: $u^i(\omega \mid a) = out^i(\omega \mid a) - out^i(x_0)$. *Override stage.* In light of utility maximization (P8) player V's optimal choice follows from Lemma 1: if $x \in \wp^V$ then $out^V(x) > out^V(x_0)$ so it should override the veto to get $\omega = x$ (P6); if $x \notin \wp^V$ then $out^V(x) < out^V(x_0)$ so it should sustain the veto to retain x_0. *Veto stage.* Player E's choice also follows from Lemma 1: if $x \in \wp^E$ then $out^E(x) > out^E(x_0)$ and she should sign the proposal to get $\omega = x$ (P6); if $x \notin \wp^E$ then, using $z^*(x)$ to anticipate down the game tree, there are two scenarios. First, if $x \in \wp^V$ then her veto will be overridden so actions $a = x_0$ ('veto') and $a = x$ ('sign') bring about the same outcome, proposal x itself: this is a situation where player E faces "outcome-indifference between actions" (OIA for short); by P8 she should (arbitrarily) veto. Second, if $x \notin \wp^V$ then her veto will be sustained, with outcome x_0; she should again veto.

Proposal stage. I consider only cases where $L \leq E$ (it is easy to show that results are symmetric otherwise). Three preference profiles (I, II, and III) are feasible and need consideration within this restriction; the proof considers all locations of $x_0 \in [0, 1]$ for each profile. **(I) Profile** $V \leq L \leq E$**.** (a) If $x_0 \leq L$ then we learn by Eq. 5 that $L < e_0$ (because $L \leq E$) so by Eq. 6 $L \in \wp^E$. By $y^*(x)$ she would sign proposal $x^* = L$ which we know by Eq. 3 generates maximum *PolicyGain* over x_0 for him, so he should propose it. (b) If $L < x_0$ then by Eq. 5 $v_0 < L$ (because $V \leq L$) so by Eq. 6 $L \in \wp^V$. By $y^*(x)$ she would sign $x^* = L$ which he should again propose. **(II) Profile** $L < V < E$**.** (a) If $x_0 \leq L$ then $L \in \wp^E$ and the case is identical to Ia. (b) If $L < x_0 \leq V$ then we can verify that by Eq. 2, provided $\epsilon > 0$ is small, $out^L(x_0 + \epsilon) < out^L(x_0) < out^L(x_0 - \epsilon)$. While by Eqs. 5 and 6 we learn that proposal $x = x_0 + \epsilon \in \wp^V$ (and by $y^*(x)$ that she would sign it) this proposal brings a utility decrement to player L over x_0; we also learn that the desirable proposal $x = x_0 - \epsilon \notin \wp^E \cup \wp^V$ (and by $y^*(x)$ and $z^*(x)$ that it would be vetoed and the veto sustained). So the best he can achieve is to retain x_0 by proposing nothing. (c) If $V < x_0 \leq (2V - L)$ then by Eq. 5 we know that $L \leq v_0 < V$ and we can verify that $out^L(x_0) = -|x_0 - L| < out^L(v_0) = -|v_0 - L|$. Since $v_0 \notin \wp^E \cup \wp^V$ (because $V < E$) then by $y^*(x)$ and $z^*(x)$ we conclude that $x = v_0$ would trigger a sustained veto. By Eq. 6 we learn that, provided $\epsilon > 0$ is small, $v_0 + \epsilon \in \wp^V$, and by $y^*(x)$ that she will sign such proposal, leaving him with payoff $u^L(x = v_0 + \epsilon) = -|v_0 - L| + |x_0 - L|$. It follows that this latter payoff is larger than the former, so he should propose $x^* = v_0 + \epsilon$. (d) If $(2V - L) < x_0$ then by Eq. 5 we know that $v_0 < L$ so that by Eq. 6 $L \in \wp^V$: by $y^*(x)$ she would sign proposal $x^* = L$, which he should propose. **(III) Profile $L \leq E \leq V$.** (a) If $x_0 \leq L$ then $L \in \wp^E$ and the case is identical to Ia. (b) If $L < x_0 \leq E$ then we have a case that is analytically equivalent to IIb, with player E in place of player V: he should propose nothing. (c) If $E < x_0 \leq (2E - L)$ then the case is equivalent to IIc with players E and V reverted: his optimal proposal is $x^* = e_0 + \epsilon$. (d) If $(2E - L) < x_0$ then $L \in \wp^E$ so by $y^*(x)$ she would sign $x* = L$, which he should propose.

Consider now the case where $\alpha = 1$ and $u^i(\omega \mid a) = u^i(a) = act^i(a)$. Players now only judge the value of their actions independent of the outcome they generate. Analysis of act^i is, in fact, identical to that of out^i: by P5 $a = x, x_0$; by P6 $\omega = x, x_0$; by Eq. 3, $out^i(\omega) = -|\omega - I|$; and by Eq. 4, $act^i(a) = -|a - I|$; so $\arg\max_{\omega=x,x_0}(out^i(\omega)) = \arg\max_{a=x,x_0}(act^i(a))$. *Override stage.* By Lemma 1, if $x \in \wp^V$ then $a = x$ ('override') is optimal; if $x \notin \wp^V$ then $a = x_0$ ('sustain') is optimal. *Veto stage.* If $x \in \wp^E$ then $a = x$ ('sign') is optimal; if $x \notin \wp^E$ then $a = x_0$ ('veto') is optimal. *Proposal stage.* $x^* = L$ maximizes $act^L(a)$, hence this is the optimal proposal (unless $x_0 = L$, in which case he arbitrarily proposes nothing).

Consider now the case where $\tau < \alpha < 1$. Given the structure of the game (P6) player i will confront one of three types of feasible action-outcome pairings: (1) $\omega = a \,\forall\, a \in A^i$; (2) $\omega = x_0 \,\forall\, a \in A^i$; and (3) $\omega = x \,\forall\, a \in A^i$. (The fourth pairing, $\omega = x_0$ if $a = x$ & $\omega = x$ if $a = x_0$ is impossible given the sequence of play.) Notice first that when $\omega = a \,\forall\, a \in A^i$ then $out^i(\omega \mid a = x) = out^i(x) = act^i(a = x)$ and $out^i(\omega \mid a = x_0) = out^i(x_0) = act^i(a = x_0)$. So the $PostureValue$ criterion reinforces the choice made by the *PolicyGain* criterion and player i will decide as when $\alpha = 0$ regardless of $0 \leq \alpha \leq 1$. Notice next that pairings of types (2) and (3) necessarily leave player i in a state of OIA (both imply that $out^i(\omega \mid a = x) = out^i(\omega \mid a = x_0)$) so u^i is determined by act^i only, making players decide as when $\alpha = 1$ regardless of $0 \leq \alpha \leq 1$. This simplifies analysis considerably.

Override stage. Unlike other players whose actions can be reversed down the game tree, player V's are final (P1, P6), so it may only face type (1) action-outcome pairings. (I rule out the case where $x = x_0$ by treating it as if player L had proposed nothing). Its equilibrium strategy $z^*(x)$ thus remains the same as when $\alpha = 0$ regardless of $0 \leq \alpha \leq 1$. *Veto stage.* Four cases deserve consideration here (a thru d). (a) If $x \in \wp^E$ & $x \in \wp^V$ we know from $z^*(x)$ that a veto would be overridden and put player E in a type (3) pairing: as when $\alpha = 1$, she should sign. (b) If $x \in \wp^E$ & $x \notin \wp^V$ then we know from $z^*(x)$ that a veto would be sustained and put player E in a type (1) pairing: as when $\alpha = 0$, she should sign. (c) If $x \notin \wp^E$ & $x \in \wp^V$ we know from $z^*(x)$ that her veto would be overridden, another type (3) pairing: as when $\alpha = 1$, she should veto. (d) If $x \notin \wp^E$ & $x \notin \wp^V$ then we know from $z^*(x)$ that her veto will be sustained, another type (1) pairing: as when $\alpha = 1$, she should veto.

Proposal stage. Player L's choice is more complex. Unlike player E, who is or is not in a state of OIA depending on factors (proposal x, x_0, E, and V) entirely out of her control, player L has some leverage in this matter. In certain game conditions he can make proposals that put him in a state of OIA (hence behaving as when $\alpha = 1$) or proposals that do not (hence behaving as when $\alpha = 0$). This choice is governed by α, his willingness to make concessions in policy to reach a feasible $PolicyGain$ while sacrificing some $PostureValue$. I consider first the proposal stage when α is infinitesimally small (ie τ is such that $0 < \forall\alpha < \tau \rightarrow (1-\alpha)|PolicyGain| > \alpha|PostureValue|$). The restriction to a small but non-zero α leaves $u^L(\omega \mid a) = (1-\alpha)(out^L(\omega) - out^L(x_0)) + \alpha act^L(a)$ while also guaranteeing that the outcome terms always overshadow the action term; formally

$$\left.\begin{array}{ll} u^L(\omega \mid a) > 0 & \text{if } out^L(\omega \mid a) - out^L(x_0) > 0 \\ u^L(\omega \mid a) < 0 & \text{if } out^L(\omega \mid a) - out^L(x_0) < 0 \\ u^L(\omega \mid a) = \alpha act^L(a) & \text{if } out^L(\omega \mid a) - out^L(x_0) = 0 \end{array}\right\} \forall\, act^L(a) \qquad (7)$$

When Eq. 7 holds, player L is always willing to capture any feasible $PolicyGain > 0$, no matter how small, thus behaving as when $\alpha = 0$. He will start behaving as when only when there is no feasible $PolicyGain$ for him in sight. This will be so when he is in a state of OIA because both player E and player V reject the whole set of proposals providing him a positive $PolicyGain$. From $y^*(x)$ and $z^*(x)$ we know that this happens whenever $L < x_0 < \min(E, V)$: as when $\alpha = 1$, he should propose $x = L$. In all other cases (ie $V \leq L \leq E$ or $\{(L < V < E$ or $L \leq E \leq V)$ & $(x_0 \leq L$ or $v_0 \leq x_0)\}$) player L should choose the same equilibrium proposal as when $\alpha = 0$.

How small does $0 < \alpha < \tau$ need to be for Eq. 7 to hold? The answer is that in some conditions α's size does not matter (any α will make players negotiate as in the standard model, so $\tau = 1$). In others, only when $\alpha = 0$ do players behave as in the standard model (so $\tau = 0$). And in others there is a precise threshold τ

or upper limit for α below which players negotiate as in the standard model, above which they may generate conflict. Since I defined τ such that $\alpha = \tau$ results in $(1-\alpha)|PolicyGain| = \alpha|PostureValue|$, we can establish that

$$\tau = \frac{|PolicyGains|}{|PolicyGains| + |PostureValue|}. \tag{8}$$

τ matters only when $PolicyGain$ and $PostureValue$ conflict. Figure 2 detects the small-α equilibrium proposals and outcomes uncovered so far. The two terms do not conflict whenever $x = L$ is the outcome (ie when x_0 belongs in z_1, z_2, z_3, z_4, z_7, z_8, z_9, and z_{12}). In these cases $\tau = 1$: even a unit α makes players behave as when $\alpha = 0$. $PolicyGain$ and $PostureValue$ do not conflict either when no proposal with $PolicyGain > 0$ for player L is feasible (ie x_0 belongs in z_5 and z_{10}); in these cases $\tau = 0$. The two terms may conflict when player L has to make policy concessions to get an outcome (ie when x_0 belongs in z_6 or z_{11}); only αs below τ make player L concede. The compromise proposal is $x = \min(e_0, v_0) + \epsilon$. We can compute player L's $PolicyGain$ and $PostureValue$ to obtain with Eq. 8:

condition	$PolicyGain \geq 0$	$PostureValue \leq 0$	τ
$x_0 \in z_6$	$|x_0-L|-|2V-x_0+\epsilon-L|$	$-|2V-x_0+\epsilon-L|$	$\frac{2|V-x_0|-\epsilon}{|x_0-L|}$
	$=2|V-x_0|-\epsilon$		
$x_0 \in z_6$	$|x_0-L|-|2E-x_0+\epsilon-L|$	$-|2E-x_0+\epsilon-L|$	$\frac{2|E-x_0|-\epsilon}{|x_0-L|}$
	$=2|E-x_0|-\epsilon$		

When $\tau < \alpha < 1$ player L chooses as when $\alpha = 1$. ∎

Corollary 1 *When $L \leq E$, if $\alpha = 0$ then $y^*(x^*) \neq x_0 \; \forall \, x^* \in [0, 1]$.*

Proof I hold $\alpha = 0$, $L \leq E$, and rely on the reaction functions defined in the Theorem. (1) If $x_0 \leq L$ then by the Theorem $x^* = L$; since $x^* \in \wp^E$ (because $L \leq E$), by $y^*(x)$ she signs the proposal. (2) If $\min(e_0, v_0) \leq L < x_0$ then again $x^* = L$; since in the case's conditions $x^* \in \wp^E \cup \wp^V$, she signs the proposal. (3) If $L < \min(e_0, v_0) \leq x_0$ then $x^* = \min(e_0, v_0) + \epsilon, \epsilon > 0$, and small; since in the case's conditions $x^* \in \wp^E \cup \wp^V$, she signs the proposal. (4) If $L < x_0 < \min(e_0, v_0)$ then $x^* = x_0$, ending the game. In neither of the mutually exclusive and exhaustive cases does the equilibrium path involve a veto, completing the proof. ∎

Corollary 2 (Result 1) *When $L \leq E$, if $0 < \alpha < 1$ then $y^*(x^*) = x \longleftrightarrow \{x_0 \leq L$ or $(2E - L < x_0$ & $V < E)$ or $(E < x_0$ & $E \leq V)\}$.*

Corollary 3 (Result 2) *When $L \leq E$, if $0 < \alpha < 1$ then $y^*(x^*) = x_0 \longleftrightarrow \{(L < x_0 < (2E - L)$ & $V < E)$ or $(L < x_0 \leq E$ & $E \leq V)\}$.*

Corollary 4 (for Result 3) *When $L \leq E$, if $0 < \alpha < 1$ then $y^*(x^*) = x_0$ & $z^*(x^*) = x \longleftrightarrow \{(V \leq x_0 < (2E - L)$ & $L < V < E)$ or $(L < x_0 < (2E - L)$ & $V \leq L)\}$.*

Proof Holding $0 < \alpha < 1$ and $L \leq E$, we need to consider eight cases in light of the Theorem. (1) If $x_0 \leq L$ then $x^* = L \in \wp^E$ so $y^*(x) = x$ ('sign'). (2) If $2E - L < x_0$ then $x^* = L \in \wp^E$ so $y^*(x) = x$ ('sign'). (3) If $V \leq L \leq E$ & $L < x_0 \leq (2E-L) \longleftrightarrow v_0 \leq L$ then $x^* = L \in \wp^E$ & $x^* \in \wp^V$ so $y^*(x) = x_0$ ('veto') and $z^*(x) = x$ ('override'). (4) If $L < V < E$ & $L < x_0 \leq V \longleftrightarrow x_0 \leq v_0$ then $x^* = L \notin \wp^E \cup \wp^V$ so $y^*(x) = x_0$ ('veto') and $z^*(x) = x_0$ ('sustain'). (5) If $L < V < E$ & $V < x_0 \leq (2V - L) \longleftrightarrow L \leq v_0 < V$ then $x^* = v_0 + \epsilon \notin \wp^E$ & $x^* \in \wp^V$ so $y^*(x) = x_0$ ('veto') and $z^*(x) = x$ ('override'). (6) If $L < V < E$ & $(2V - L) < x_0 \leq (2E - L) \longleftrightarrow L \leq v_0 < L$ then $x^* = L \notin \wp^E$ & $x^* \in \wp^V$ so $y^*(x) = x_0$ ('veto') and $z^*(x) = x$ ('override'). (7) If $L \leq E \leq V$ & $L < x_0 \leq E \longleftrightarrow x_0 \leq e_0 < L$ & $x_0 < v_0$ then $x^* = L \notin \wp^E \cup wp^V$ so $y^*(x) = x_0$ ('veto') and $z^*(x) = x_0$ ('sustain'). (8) If $L \leq E \leq V$ & $E < x_0 \leq (2E - L) \longleftrightarrow L \leq e_0 < x_0$ then $x^* = e_0 + \epsilon \in \wp^E$ so $y^*(x) = x$ ('sign').

In cases (1), (2), and (8) $y^*(x) \neq x_0$ ('veto'); the underlying conditions add up to those in Corollary 2. In cases (3), (4), (5), (6), and (7) $y^*(x) = x_0$ ('veto'); the underlying conditions add up to those in Corollary 3. In cases (4) and (7) $y^*(x) = x_0$ ('veto') and $z^*(x) = x_0$ ('sustain') while in cases (3), (5), and (6) $y^*(x) = x_0$ ('veto') and $z^*(x) = x$ ('override'); the underlying conditions add up to those in Corollary 4. Because cases (1-8) are mutually-exclusive and exhaust possible combinations, this proves Corollaries 2, 3, and 4. ∎

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