A Model of Succession

Álvaro Delgado-Vega* Benjamin Shaver

ETH Zürich *University of Chicago*

March 21, 2024

Abstract

We study a career concerns model with the leader of an organization and her follower. The leader designs a policy by weighting goals she shares with the follower and others that divide them. Whether the policy is implemented successfully is a function of the leader's unknown quality and the follower's cooperation. After the implementation outcome is revealed, the organization chooses whether to promote the follower. The follower's succession concerns may lead him to cooperate to avoid responsibility for failure or to steal credit for success. The leader can take advantage of the follower's succession concerns to achieve cooperation for a policy that is highly divisive. Finally, we show that although the organization faces a competence-loyalty trade-off, they may choose a high-quality follower despite knowing he will sabotage. Further, if the follower is optimally chosen, the leader always designs a divisive policy.

JEL: D73, D23, D72

Keywords: Organizations; Political economy; Career concerns; Leadership; Political Parties

*Álvaro Delgado-Vega: aldelgad@eco.uc3m.es; Benjamin Shaver: blshaver@uchicago.edu. We are deeply grateful to Wioletta Dziuda and Antoine Loeper for their guidance and advice. This paper has benefited from helpful discussions with Scott Ashworth, Benjamin Blumenthal, Ethan Bueno de Mesquita, Georgy Egorov, Scott Gehlbach, Barton Lee, Zhaotian Luo, Johannes Schneider, Konstantin Sonin, and Rubén Veiga. We thank audiences at the Universities of Bern and Chicago.

It is a story as old as the hills: the prince could not wait for the king to die. It's the essence of quite a few Shakespearean tragedies.

—John Reid, Secretary of State for Scotland, about Tony Blair and Gordon Brown (B.B.C. (2021))

1 Introduction

Leaders often have an heir-apparent. Whether it's kings and princes, presidents and vice presidents, or CEOs and senior managers, cooperation between these pairs of individuals plays a crucial role in their organizations' success. However, stories of princely rebellions suggest that cooperation between a leader and her heir-apparent may suffer under the shadow of succession.

Yet, the following examples illustrate how the effect of succession concerns on cooperation may be more complicated. Sometimes an heir-apparent who values succession refuses to sabotage their leader—even when the leader pursues a policy agenda the heir opposes. In the years leading up to the Second World War, the British Prime Minister Neville Chamberlain championed a policy of appeasement towards Nazi Germany and Fascist Italy. In February 1938, his heir-apparent Anthony Eden resigned as Foreign Secretary in protest. The Conservatives who disagreed with appeasement hoped that Eden would marshal an opposition group that could defy Chamberlain's policy. One of his supporters wrote him

> "You alone can provide the leadership which will make these [anti-appeasement] elements in the party united and effective" (Bouverie, 2019).

Yet, Eden retreated to the French Riviera for several months and failed to speak decisively against the Government upon his return. Although different explanations have been raised for his inaction, Eden's career concerns may not be without relevance. As Bouverie (2019) explains,

> "Aware of his position as front-runner to succeed Chamberlain should the Prime Minister's policy be seen to fail, Eden considered that there was little to be gained by criticising the Government."

In 2003, when Prime Minister Tony Blair decided to pursue the invasion of Iraq, some critics in the Labour party sought the support of his heir-apparent Gordon Brown, who was suspected to

disapprove of the invasion. To their disappointment, Brown stood with Blair. However, he went to some lengths to dissociate himself from the main decisions concerning Iraq. Despite participating in several foreign policy committees, Brown didn't participate in the Subcommittee on Iraq nor in the Subcommittee on Conflict Prevention and Reconstruction. Also, he presented his decision as trusting Blair's judgment:

> "People talk about personal ambition and everything else. For me what mattered was that if the Prime Minister was saying this was correct and that there was evidence [of the existence of arms of mass destruction] and I have no evidence to refute that, I should support him." (B.B.C., 2021)

The invasion dogged Blair throughout the 2005 election campaign and Gordon Brown played a prominent role in Labour's victory, frequently appearing with Blair and ensuring that the economy remained the party's central message. A growing pressure from inside the party pushed Blair to resign in June 2007.

In this paper, we formalize features of the previous anecdotes in a career concerns model to answer two questions: when is cooperation a successful path to succession? Can leaders take advantage of their heirs' ambition to increase their leeway as agenda setters?

We model an organization, with two agents: a leader (she) and her follower (he) who are of unknown quality, and a committee responsible for selecting the organization's leader. The leader designs a policy for the organization to implement by weighing the goals she shares with the follower and those that divide them. Whether the policy is successfully implemented depends on the leader's quality and the follower's cooperation. When it is revealed whether implementation succeeded, the committee updates its beliefs about the leader's quality, and chooses whether to retain her or promote the follower. Importantly, failure is more informative about the leader's quality when it occurs despite the follower's cooperation, and symmetrically, success is more informative when it occurs despite the follower's sabotage. The follower and the leader care about policy, but they also value leading the organization.

At a first glance, one may conjecture that in equilibrium sabotage occurs when the leader chooses a policy the follower finds unpalatable. We can outline the logic for this association. First, consider the case where the leader's and follower's (expected) qualities are sufficiently distant. Then the

follower lacks succession concerns because promotion is predetermined from the start. For instance, a strong leader who, even after failure, is believed to be superior to the follower will never be replaced. Inversely, a lame duck leader who, even after success, is believed to be inferior to the follower will never be retained. In this case, the leader needs to incentivize the follower to cooperate by catering to his policy preferences. Hence, cooperation and consensus-seeking concur.

In contrast, if the agents' expected qualities are very similar, the leader will be replaced after any failure. Then, succession concerns incite the heir-apparent to sabotage to maximize the probability of succession. Anticipating that sabotage cannot be avoided, the leader will choose her preferred policy even if the follower dislikes it, and thus there is sabotage and divisive agenda-setting.

However, this association between policy divisiveness and sabotage is broken if *how* failure occurs determines whether succession follows. A leader who will only be replaced if she fails "big"—that is, if she fails despite the follower's cooperation—can exploit her vulnerability to shift the policy in her favor. The follower's succession concerns impel him to cooperate because the leader is replaced only if she carries all the blame for failure. Then, the leader can force the follower to cooperate in implementing a policy he dislikes.

A related situation is a leader who trails behind the follower and can only retain power if she succeeds "alone"—that is, by succeeding despite the follower's sabotage. Again, succession concerns impel the follower to cooperate, and the leader can take advantage of this by shifting policy in her favor.

These results imply that a leader can exploit her vulnerability to take the organization in her preferred direction. Therefore, the leaders with the greatest leeway as agenda-setters are neither among the strongest, nor among the weakest, but are found in those whose quality is in an intermediate range relative to their heir-apparent.

This is not the first paper to convey that leaders make contentious decisions when their careers may come to an end. The literature has identify two explanations for that behavior. First, leaders against the ropes choose risky projects, gambling for resurrection (Downs and Rocke (1994), Carrillo and Mariotti (2001)). Second, lame ducks choose their preferred policies since they lack career concerns (Barro (1973), Conconi et al. (2014)). Our model encompasses both of these situations. However, we also offer a different mechanism: the vulnerable leader who is only replaced if she fails 'big'. This vulnerable leader is not a lame duck—she has career concerns—and contrary to a leader

who gambles for resurrection, the vulnerable leader is not particularly exposed to replacement. It suffices that she will be replaced if she has a resounding failure for our mechanism to exist. We show that those leaders, who are exposed but only if they fail 'big', will be among the most likely to pursue a divisive policy that they personally like.

In addition, our results give some nuanced insights about the mechanisms that are already known in the literature. First, we show that lame ducks might be consensus-seekers. Since they cannot instrumentalize their follower's succession concerns to induce them to cooperate, they need to cater to their follower's preferences instead. Although this result differs from the traditional view of Barro (1973), it is congruent with the empirical evidence on lame-duck CEOs, whose effectiveness has been documented by Gabarro et al. (2018). On the contrary to lame ducks, trailing leaders who are tempted to gamble for resurrection can take advantage of their follower's succession concerns. Hence, these leaders can obtain their follower's cooperation when pursuing their preferred policies, even if their goals are not shared by their followers.

We close this paper by considering how a committee that can select the follower responds to the threat of sabotage. Sabotage occurs in equilibrium when the agents' qualities are close. Hence, a committee concerned with success today and in the future faces a trade-off between selecting the best follower—who sabotages—or selecting the best follower *who will cooperate*—but who will also be of relatively lower quality. Importantly, choosing the best among the followers who cooperate still makes the leader vulnerable to a 'big' failure. This has two implications. First, regardless of whether the committee chooses the best follower or the best follower who cooperates, succession concerns play a key role in equilibrium. Second, the leader will not act as a consensus-seeker, either because she will be sabotaged anyway (the best follower is too close in quality) or because the follower will cooperate to make the leader take all the blame for a failure. Lastly, we show that it is not necessarily true that the committee will select a mediocre follower who cooperates. When the leader is not of especially high quality, the committee prefers to select the best possible follower even if he sabotages.

Related Literature. Some of the closest papers to ours study the relationships of leaders and their collaborators and identify conditions when the relationship becomes dysfunctional. In Dewan and Myatt (2007) and Dewan and Myatt (2010), issues arise when a leader fails to provide her

collaborators with sufficient cover or credible career incentives. When the follower enjoys an information advantage, Prendergast (1993) and Morris (2001) show the follower may not share his information because he is under the leader's subjective evaluation. In Egorov and Sonin (2011), the follower's information advantage translates into 'back-stabbing.' Mattozzi and Merlo (2008), Zakharov (2016), and Dessein and Garicano (2023) focus on the outside options of high-quality collaborators. Lastly, Zhou (2023) studies the "crown-prince problem": a leader decides whether to increase her heir-apparent's political capital. Similar to our paper, Zhou shows that succession concerns can have destructive effects. However, because we microfound political capital as a belief about the agents' quality, we also identify how succession concerns may foster unity within the organization.

This paper also contributes to study of a "mediocracy" in political parties (Caselli and Morelli, 2004; Mattozzi and Merlo, 2015) and to the competence-loyalty trade-off in autocracies (Debs, 2007; Egorov and Sonin, 2011; Lagerlöf, 2012; Zakharov, 2016), democracies (Galasso and Nannicini, 2011); and family firms (Burkart et al., 2003). In our model, a follower believed to be sufficiently close to his leader's quality will be a saboteur. This literature, however, has not studied how the competence-loyalty trade-off interrelates with the leader's agenda power. We show that a leader can exploit her follower's succession concerns to pursue her preferred policies and hence, we provide a new rationale for leaders to prioritize quality.

Finally, this paper relates to the literature on sabotage within politics. In Gieczewski and Li (2022) and Hirsch and Kastellec (2022), out-parties sabotage policies passed by the in-party. In these papers, as well as ours, sabotage affects the information that can be learned from failed policy implementation. In Gieczewski and Li (2022) and Hirsch and Kastellec (2022), as well as Fong and Krehbiel (2018), the focus is primarily on one party sabotaging another. Whereas in our model, we focus on intra-party sabotage. Izzo (2023) also examines sabotage within parties, but abstracts away from succession concerns, instead focusing on a setting where there is uncertainty about which policy is optimal.

2 The Model

Consider a career concerns model with three players that belong to the same organization, the organization's committee (it) and two agents: a leader (she), ℓ, and her follower (he), f. At the start of the game, the organization is directed by the leader, whose heir-apparent is the follower.

The leader and the follower are each high quality or not, and their quality is unknown by every player. We denote the leader's and follower's quality by $k_\ell \in \{H, L\}$ and $k_f \in \{H, L\}$, respectively, and the prior probabilities of being high quality by $\theta \equiv Pr(k_\ell = H)$ and $\theta^f \equiv Pr(k_f = H)$.

Timing. The game has three stages.

(i) *Agenda-setting stage:* The leader designs a policy by choosing $w \in [0, \bar{w}]$. The policy could be a project that needs to be carried out, a bill that needs to be approved, or an electoral platform.

(ii) *Implementation stage:* The follower chooses whether to cooperate in implementing the policy, $e \in \{0, 1\}$, where 1 denotes cooperation. Then, the organization succeeds or fails in implementing the policy. Success occurs with probability $p(k_\ell, e)$, which depends on the leader's quality k_l and the follower's cooperation e.

(iii) *Succession stage:* The committee observes whether implementation succeeded. Then, it retains the current leader or promotes the follower.

Learning. The implementation outcome is stochastic and dichotomous; it either succeeds or fails. Given the belief θ, and slightly abusing notation, we denote the expected success probability by:

$$p(\theta, e) = \theta p(H, e) + (1 - \theta) p(L, e).$$

After the implementation stage, the committee forms an updated belief about the leader's quality. Given the follower's cooperation e, we denote by $\hat{\theta}_e$ the belief after success and by $\check{\theta}_e$ the belief after failure.

We impose some structure on the function $p(k, e)$.

Assumption 1 *(i) The probability of success increases in the leader's quality and the follower's cooperation:* $1 > p(H,e) > p(L,e) > 0$ *for any* $e \in \{0,1\}$ *and* $1 > p(k,1) > p(k,0) > 0$ *for any* $k \in \{H,L\}$.

(ii) The probability of success satisfies the monotone likelihood ratio for failure but not for success:

$$\frac{p(H,1)}{p(L,1)} \leq \frac{p(H,0)}{p(L,0)} \quad \textit{and} \quad \frac{1-p(L,0)}{1-p(H,0)} \leq \frac{1-p(L,1)}{1-p(H,1)}.$$

Part (i) implies that success is more likely when the leader is high quality or her follower cooperates. Furthermore, since none of the outcomes are certain, neither success nor failure perfectly reveals the leader's quality.[1] Part (ii) relates to the informativeness of outcomes in the sense of how they change the posterior belief about the leader's quality. In particular, failure is more informative when it occurs despite the follower's cooperation, and success is more informative when it occurs despite the follower's sabotage. Hence, the updating on the leader's quality is as follows:

$$\check{\theta}_1 < \check{\theta}_0 < \theta < \hat{\theta}_1 < \hat{\theta}_0.$$

Figure 1 depicts this notion. Several natural functional forms satisfy Assumption 1. Two examples that appear in the paper are:

$$p(\theta,e) = v + me + a\theta, \tag{1}$$

where $v > 0, m > 0, a > 0$, and

$$p(\theta,e) = v + m + (a_0 + a_1 e)\theta, \tag{2}$$

where $a_0 > 0$, and $a_1 < \frac{a_0 m}{v}$.[2] This implies that our results allow for functions like (1) in which cooperation and quality operate as substitutes, but also functions like (2) in which they have some degree of complementarity.[3]

[1] This assumption is not essential for our results, but assuming one outcome is perfectly revealing leads to a loss of richness in our results.

[2] This assumption ensures the functional form satisfies Assumption 1. See the Supplemental Appendix for more

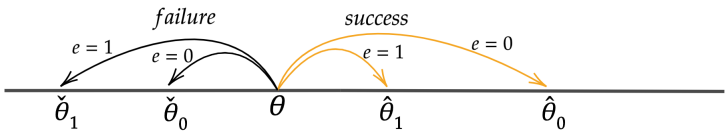

Figure 1: Updating on the leader's quality.

Payoffs. The follower incurs a cost of $c \geq 0$ from cooperating and both agents derive a policy payoff from successful implementation. If the organization succeeds, the leader derives a policy payoff $\varphi + w$ and the follower, $\varphi - w$. Hence, there is a public-good component, captured by $\varphi > 0$, and a zero-sum component, captured by $w \in [0, \bar{w}]$. If the organization fails, the policy payoff is zero. In addition, agents receive an office rent $b > 0$ if they hold power at the end of the game. We assume this rent is greater than the public-good component of the policy, $b > \varphi$.[4] The committee values selecting the best available leader for the organization.

3 Interpretation

Organizations. We view this model as applying to organizations where a leader is under threat of replacement by another member. One natural setting is a political party. Parties have diverse rules that dictate how succession occurs, so the committee represents whoever selects the party leader in each system. For example, across history, US parties have had primary elections, national conventions and congressional caucuses. European parties have traditionally selected their leaders in a party congress, though primaries have become increasingly widespread. Another natural application is a firm, where a manager may be groomed for CEO succession many years prior to her promotion (Mobbs and Raheja, 2012; Cannella Jr and Shen, 2001). In this context, the committee represents the board of directors.

Disadvantaged Leaders. We allow for the possibility that the follower is of higher expected quality than the leader at the start of the game. Although this situation may seem uncommon, it is

information.

[3] In the case most natural case in which $\theta > \theta^f$, our results hold as long as $p(\theta, e)$ satisfies the monotone likelihood ratio for failure, like for example, if $p(\theta, e) = (a_0 + a_1 e)\theta$.

[4] Hence, regardless the policy concessions of the leader, the follower would sabotage if that is his only way of attaining promotion. Our most interesting insights, however, do not require such assumption, and precisely show how succession concerns may induce cooperation, not sabotage.

nonetheless possible. For example, in Presidential systems where the term in office is fixed, bad news might be revealed about the leader in a moment when she cannot be immediately replaced.[5]

Cooperation vs. Sabotage. In our model, the follower chooses whether to cooperate with the leader's agenda or to sabotage it. Cooperation may be a costly action that increases the probability of success, but it may also be the decision to go along with the leader. This former interpretation fits the motivating examples, where, despite opposition to their leaders' policies, Eden and Brown didn't actively sabotage. Ultimately, assuming cooperation is costly does not play a substantial role in our results.

4 Analysis

We solve the game by backward induction.[6] We start with the committee's promotion decision. Then, we study the follower's cooperation choice. Since we allow for policy misalignment, we will see that there is a level of policy divisiveness above which the follower does not cooperate. Lastly, we turn to the leader's policy choice. Both agents' choices are affected by their policy preferences but also by their succession concerns because promotion and cooperation are connected through the updating of beliefs.

4.1 Succession stage

The committee promotes the follower if, after observing the implementation outcome, it believes that he is more likely to be high quality than the leader. Figure 2 displays the universe of possible succession cases.

When the leader's initial expected quality exceeds the follower's i.e., $\theta \geq \theta^f$, success always implies retention. Failure, however, might have different effects. On one extreme, if the leader's expected quality is sufficiently superior to the follower's, i.e., $\check{\theta}_1 > \theta^f$, the leader is *Strong*, so she retains power after any form of failure. In the intermediate case, $\check{\theta}_0 > \theta^f > \check{\theta}_1$, the informativeness

[5]The French President François Hollande had significantly low approval ratings for almost the entirety of his presidency. When in 2014 he appointed Manuel Valls as Prime Minister, it was biggest spread in rating between a president and his prime minister ever in the history of French politics.

[6]The proof for Proposition 1 is provided in the main text, though we provide a more detailed proof in the Supplementary Appendix.

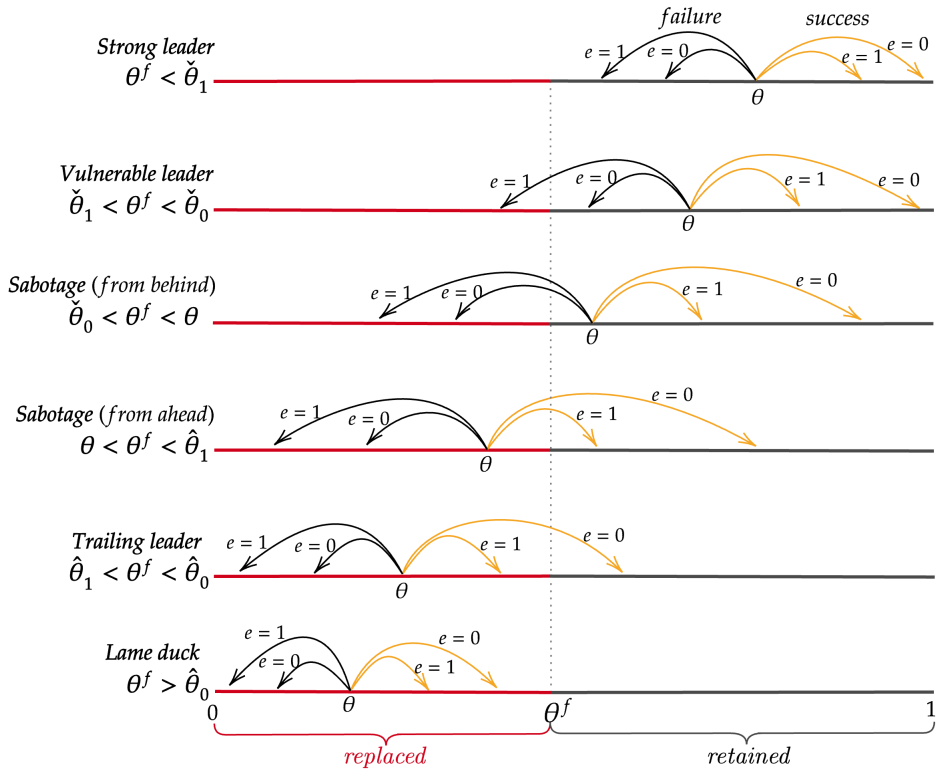

Figure 2: Succession cases given the follower's quality θ^f.

of failure plays a key role and we say the leader is *Vulnerable*. A vulnerable leader is replaced if she fails 'big', that is if she fails despite the follower's cooperation, but not otherwise. On the other extreme, if the beliefs about the agents are close, i.e., $\theta^f > \check{\theta}_0$, any form of failure leads to replacement.

Symmetrically, when the follower's expected quality exceeds the leader's, i.e., $\theta^f \geq \theta$, failure always implies succession and the analogous logic applies after success. If the leader's expected quality is sufficiently inferior to the follower's, i.e., $\check{\theta}_1 > \theta^f$, she is a *Lame duck*, who is replaced after any outcome. For intermediate values, i.e., $\hat{\theta}_1 < \theta^f < \hat{\theta}_0$, the leader is *Trailing* and she is retained if she succeeds "alone", that is, if she succeeds despite the follower's sabotage, but not otherwise.

4.2 Implementation and Agenda-setting stages

Strong leader ($\check{\theta}_1 > \theta^f$) and Lame duck ($\hat{\theta}_0 < \theta^f$). Absent succession concerns—either because the leader is never replaced (*Strong leader*) or because the leader is certain to be replaced (*Lame duck*)—the follower cooperates if and only if the policy is attractive enough to cover the cost, i.e.,

$$(p(\theta,1) - p(\theta,0))(\varphi - w) \geq c,$$

which can rewritten as $w \leq \hat{w}^S$, where

$$\hat{w}^S \equiv \varphi - \frac{c}{p(\theta,1) - p(\theta,0)}. \tag{3}$$

Having solved for the follower's best response as a function of w, we can now solve for the equilibrium of the game. Since there are no succession concerns, the leader maximizes her expected policy payoff. Intuitively, if $\bar{w}$ induces cooperation, the leader always chooses it. Otherwise, the leader faces a trade-off between selecting an agenda that yields a lower payoff but induces cooperation—making it more likely to be implemented—or selecting the agenda she prefers, even if the follower sabotages. The leader induces cooperation if

$$p(\theta,1)(\varphi + \hat{w}^S) > p(\theta,0)(\varphi + \bar{w}).$$

After partially substituting $\hat{w}^S$, we obtain:

$$(p(\theta,1)-p(\theta,0))2\varphi - c - p(\theta,0)(\bar{w}-\hat{w}^S) > 0. \tag{4}$$

Vulnerable leader ($\check{\theta}_1 < \theta^f < \check{\theta}_0$). Succession only arises when the leader fails despite the follower cooperating ('fails big'). Hence, the follower is incentivized to cooperate for levels of divisiveness for which he would never cooperate if succession was off of the table. Formally, he cooperates if $w \leq \hat{w}^V$, where

$$\hat{w}^V \equiv \varphi + \frac{1-p(\theta,1)}{p(\theta,1)-p(\theta,0)}b - \frac{c}{p(\theta,1)-p(\theta,0)} > \hat{w}^S. \tag{5}$$

Note that the follower might cooperate to implement a policy that gives him a negative payoff.

Consider now the policy choice of the Vulnerable leader, who faces a trade-off the Strong leader did not: inducing the follower to sabotage guarantees her political survival. The logic of political survival would suggest the Vulnerable leader has greater incentives to induce sabotage. However, perhaps surprisingly, this is not the case. The Vulnerable leader induces cooperation if

$$p(\theta,1)(\varphi+\hat{w}^V+b) > p(\theta,0)(\varphi+\bar{w})+b,$$

which after partially substituting $\hat{w}^V$, yields:

$$(p(\theta,1)-p(\theta,0))2\varphi - c - p(\theta,0)(\bar{w}-\hat{w}^V) > 0, \tag{6}$$

and since $\hat{w}^V > \hat{w}^S$, we see that the leader is more likely to induce cooperation when she is in a vulnerable position than when she is in a strong one. To see why, note from (5) that $\hat{w}^V$ captures the follower's succession concerns. As a result, when we substitute $\hat{w}^V$, the succession concerns of the leader cancel out, but in terms of policy, the leader prefers $\hat{w}^V$ to $\hat{w}^S$.

Sabotaged leader ($\check{\theta}_0 < \theta^f < \hat{\theta}_1$). Any form of failure implies succession, and since the follower's succession concerns dominate his policy preferences, i.e., $b > \varphi$, the follower sabotages for any w. Anticipating this, the leader has no incentive to cater to her follower's preferences; hence she chooses

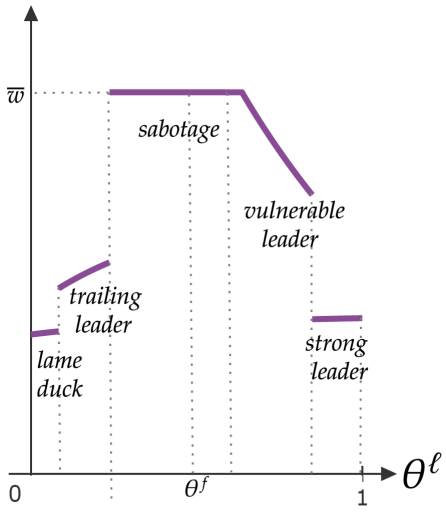

Figure 3: Policy choice for (2).

$w^* = \bar{w}$.

Trailing leader ($\hat{\theta}_1 < \theta^f < \hat{\theta}_0$). The leader is retained only if she succeeds "alone". Hence, symmetrically to the Vulnerable leader case, succession concerns impel the follower to cooperate. Formally, he does so if $w \leq \hat{w}^T$, where

$$\hat{w}^T \equiv \varphi + \frac{p(\theta,0)}{p(\theta,1)-p(\theta,0)}b - \frac{c}{p(\theta,1)-p(\theta,0)} > \hat{w}^S. \tag{7}$$

The office concerns of the trailing leader push her to gamble for resurrection by incentivizing non-cooperation. She induces cooperation if

$$p(\theta,1)(\varphi + \hat{w}^T) > p(\theta,0)(\varphi + \bar{w} + b).$$

which after partially substituting $\hat{w}^T$, yields:

$$(p(\theta,1)-p(\theta,0))2\varphi - c - p(\theta,0)(\bar{w} - \hat{w}^T) > 0. \tag{8}$$

Proposition 1 *A unique equilibrium exists almost everywhere.*

*(i) If $\theta^f < \check{\theta}_1$ (**Strong leader**), when (4) holds, $w^* = \min\{\hat{w}^S, \bar{w}\}$ and the follower cooperates;*

otherwise, $w^* = \bar{w}$ and follower sabotages. The leader is retained.

*(ii) If $\check{\theta}_1 < \theta^f < \check{\theta}_0$ (**Vulnerable leader**), when (6) holds, $w^* = \min\{\hat{w}^V, \bar{w}\}$, the follower cooperates and the leader is retained only after success. Otherwise, $w^* = \bar{w}$, the follower sabotages and the leader is retained.*

*(iii) If $\check{\theta}_0 < \theta^f < \hat{\theta}_1$ (**Sabotaged leader**), $w^* = \bar{w}$, the follower sabotages, and leader is retained only after success.*

*(iv) If $\hat{\theta}_1 < \theta^f < \hat{\theta}_0$ (**Trailing leader**), when (8) holds, $w^* = \min\{\hat{w}^T, \bar{w}\}$, the follower cooperates and the leader is replaced. Otherwise, $w^* = \bar{w}$, the follower sabotages and the leader is retained after a success.*

*(v) If $\hat{\theta}_0 < \theta^f$ (**Lame duck**), when (4) holds, $w^* = \min\{\hat{w}^S, \bar{w}\}$ and the follower cooperates; otherwise, $w^* = \bar{w}$ and follower sabotages. The leader is replaced.*

4.3 Discussion

Our results have a number of implications for the study of leaders in organizations. First, we show how leaders can either take advantage of their follower's succession concerns to pursue their preferred agenda or use their agenda setting power to protect their hold on power. This advantage is neither enjoyed by strong leaders nor by lame ducks, but by those whose hold on power depends not only on whether they fail (or succeed) but on *how* they do it. When a leader will be replaced only if she fails "big", the follower needs to cooperate with them to ensure they receive all the blame for failure. Analogously, when the leader only retains power if she succeeds "alone", the follower cooperates to steal credit. Anticipating this, the leader can either induce the follower to support an agenda he dislikes, or on the contrary, pursue an extremely divisive agenda, leading the follower to sabotage and hence, increasing her probability of retaining power.

This observation about the interaction between agenda power and sabotage is absent from the literature on intra-party competition. If anything, existing research points to how sabotage weakens the leader's agenda power. For instance, Izzo (2023) studies the interplay of intra-party sabotage and the leader's agenda power, and finds that by hurting the electoral prospects of the leader of their party, a mis-aligned politician can force the leader to choose polices the leader dislikes but that

the mis-aligned politician prefers. Unlike Izzo, we find that a leader who is sabotaged in equilibrium designs a policy that maximizes her policy payoff.

Second, we identify a limitation in the agenda-setting power of strong leaders and lame ducks. Since they cannot exploit the follower's succession concerns, they need to offer policy concessions to avoid being sabotaged. The existing literature has generally predicted that strong leaders and lame ducks are more capable of obtaining their preferred policies (Barro, 1973). However, we show this prediction may be incorrect if policy implementation requires the cooperation of an heir-apparent, who needs to be adequately incentivized.

Lastly, leaders whose perceived quality is too close to their followers' are haunted by their followers' succession concerns. Such leaders pursue their preferred policies but are sabotaged. Hence, our model predicts a rather familiar sight for any political pundit: weak leaders will issue manifestos disliked by their collaborators, will head parties plagued with factional strife, and will be replaced as soon as they fail once.[7]

5 Competence-Loyalty Trade-off

Since followers sabotage when they have similar expected quality to the leader, it is natural to ask whether the organization has a preference for strong leaders and low-quality followers. In this section, we show this is not necessarily the case. In instances where quality and cooperation are complements and where they are substitutes, the committee may choose a high-quality follower who sabotages.

We extend our model by assuming that at the start of the game, the committee selects a follower from a continuum of candidates whose expected quality is the interval $[0, \theta)$. We also introduce a slight change in the committee's payoff: it receives φ if the organization succeeds and, to make payoffs comparable in a transparent way, it receives $p(\theta, 1)\varphi$ from selecting a leader of (expected) quality θ at the end of the game.[8] This payoff assumption is equivalent to assuming the committee is a utilitarian social planner who values the overall success of the organization and disregards the

[7] In 2015, Jeremy Corbyn was elected leader of the British Labour Party with little support from the parliamentary group. Having always been an eurosceptic, Corbyn made little effort to defend the Remain option in the EU referendum. His decision sprung the criticism and surprise of many party notables. After the referendum, 23 of the 31 Shadow Cabinet members resigned, and a motion of no confidence in Corbyn as Labour leader was tabled.

[8] None of these assumptions modify the committee's incentives in the baseline model.

policy disagreement between leader and follower. We restrict to values of $\bar{w}$ such that cooperation is attained in equilibrium for some pair of agents' qualities.

It is immediate to see that the committee will choose one of two candidates: either the best follower or the best follower *who will cooperate*. Since the best follower who will cooperate is of lower quality than the best follower, these candidates illustrate the committee's competence-loyalty trade-off. When cooperation is crucial for success or the future replacement of the leader is considered unlikely, the committee wants a cooperative follower even if he is of lower quality. But when cooperation is relatively less important or the leader's replacement seems more likely, the committee may prefer to select the best possible follower.

Perhaps interestingly, even if the best follower *who will cooperate* is mediocre, he will replace the leader if she fails 'big'. Hence, regardless of how the committee solves the competence-loyalty trade-off, if the follower is optimally chosen, succession concerns always play a key role on the follower's cooperation choice. In addition, leaders never behave as consensus-seekers that cater to their follower's policy preferences, either because the follower will sabotage in any case, or because the leader can exploit her vulnerability to obtain greater leeway as the agenda-setter. The following remark summarizes this discussion.

Remark 1 *If the follower is optimally chosen, succession concerns enters into the follower's calculus and policy is divisive, i.e.,* $w \geq \hat{w}^V$.

The following proposition shows that when quality and cooperation are perfect complements, the committee might select the best follower even if he will be a saboteur.

Proposition 2 *Consider* $p(\theta, e) = v + \theta(a_0 + a_1 e)$. *If* v *and* a_1 *are sufficiently small and* a_0 *is sufficiently great, there exists a* $\bar{\theta}_c \in (0,1)$ *such that if* $\theta \leq \bar{\theta}_c$, *the committee selects the best follower.*

Two effects make the follower's (expected) quality especially valuable when the leader is of lower quality. First, when the leader is more likely to fail, having a promising successor is more valuable. The second arises from the complementarity between quality and cooperation: cooperation is more productive when a leader is of higher quality.

The next proposition addresses the same choice when quality and cooperation are perfect substitutes. Relative to the case with complementarity, follower's quality takes primacy when the leader's quality is intermediate.

Proposition 3 *Consider $p(\theta, e) = v + me + a\theta$. If m or v are sufficiently small, there exists a pair $(\underline{\theta}_s, \bar{\theta}_s) \in (0,1)$ such that if $\theta \in [\underline{\theta}_s, \bar{\theta}_s]$, the committee selects the best follower.*

Similarly to Proposition 2, high-quality leaders render promising successors less important. But differently to the case of complementarity, the substitutability between cooperation and quality makes cooperation more productive also if leaders are of the lowest quality. As the belief about the leader's quality decreases, cooperation becomes a better substitute. In addition, when the leader is of low expected quality, failure produces a minor update, and hence selection loses effectiveness.

6 Conclusions

We presented a model on how succession concerns impact leaders' policy concerns and the internal cohesion of organizations. In the model, the leader designs an agenda and her follower chooses whether to cooperate with her under the shadow of succession. We show that cooperation can be a successful path to succession: by cooperating, the follower steals credit for the leader's successes and avoids blame for her failures. As a result, the leader can leverage the follower's desire for succession to pursue her preferred agenda at the follower's expense. Both of these effects are present when the agents' qualities are neither too close nor too distant. Lastly, we consider the committee's competency-loyalty trade-off. Although the desire to avoid sabotage can lead the committee to select a mediocre follower, that is not necessarily the case when the leader is not of especially high quality.

References

Barro, R. J. (1973): "The control of politicians: an economic model," *Public Choice*, 19–42.

B.B.C. (2021): *Blair & Brown: The New Labour Revolution*.

Bouverie, T. (2019): *Appeasing Hitler: Chamberlain, Churchill and the road to war*, Random House.

Burkart, M., F. Panunzi, and A. Shleifer (2003): "Family firms," *The Journal of Finance*, 58, 2167–2201.

Cannella Jr, A. A. and W. Shen (2001): "So close and yet so far: Promotion versus exit for CEO heirs apparent," *Academy of Management Journal*, 44, 252–270.

Carrillo, J. D. and T. Mariotti (2001): "Electoral competition and politician turnover," *European Economic Review*, 45, 1–25.

Caselli, F. and M. Morelli (2004): "Bad politicians," *Journal of Public Economics*, 88, 759–782.

Conconi, P., N. Sahuguet, and M. Zanardi (2014): "Democratic peace and electoral accountability," *Journal of the European Economic Association*, 12, 997–1028.

Debs, A. (2007): "Political Strength and Economic Efficiency in a Multi-Agent State," .

Dessein, W. and L. Garicano (2023): "La Cordata: Loyalty in Tournaments," *Working Paper*.

Dewan, T. and D. P. Myatt (2007): "Scandal, protection, and recovery in the cabinet," *American Political Science Review*, 101, 63–77.

——— (2010): "The declining talent pool of government," *American Journal of Political Science*, 54, 267–286.

Downs, G. W. and D. M. Rocke (1994): "Conflict, agency, and gambling for resurrection: The principal-agent problem goes to war," *American Journal of Political Science*, 362–380.

Egorov, G. and K. Sonin (2011): "Dictators and their viziers: Endogenizing the loyalty–competence trade-off," *Journal of the European Economic Association*, 9, 903–930.

Fong, C. and K. Krehbiel (2018): "Limited obstruction," *American Political Science Review*, 112, 1–14.

Gabarro, M., S. Gryglewicz, and S. Xia (2018): "Lame-Duck CEOs," *Available at SSRN 3193048*.

Galasso, V. and T. Nannicini (2011): "Competing on good politicians," *American Political Science Review*, 105, 79–99.

Gieczewski, G. and C. Li (2022): "Dynamic policy sabotage," *American Journal of Political Science*, 66, 617–629.

Hirsch, A. V. and J. P. Kastellec (2022): "A theory of policy sabotage," *Journal of Theoretical Politics*, 34, 191–218.

Izzo, F. (2023): "With friends like these, who needs enemies?" *Journal of Politics*, forthcoming.

Lagerlöf, N.-P. (2012): "A Dynamic Theory of Competence, Loyalty and Stability in Dictatorships," *The BE Journal of Macroeconomics*, 12.

Mattozzi, A. and A. Merlo (2008): "Political careers or career politicians?" *Journal of Public Economics*, 92, 597–608.

——— (2015): "Mediocracy," *Journal of Public Economics*, 130, 32–44.

Mobbs, S. and C. G. Raheja (2012): "Internal managerial promotions: Insider incentives and CEO succession," *Journal of Corporate Finance*, 18, 1337–1353.

Morris, S. (2001): "Political correctness," *Journal of Political Economy*, 109, 231–265.

Prendergast, C. (1993): "A theory of" yes men"," *The American Economic Review*, 757–770.

Zakharov, A. V. (2016): "The loyalty-competence trade-off in dictatorships and outside options for subordinates," *The Journal of Politics*, 78, 457–466.

Zhou, C. (2023): "Last step to the throne: the conflict between rulers and their successors," *Political Science Research and Methods*, 11, 80–94.

A Appendix

Proofs of Proposition 3 and 4:

If $\theta > \theta^f$, the committee's payoff given some e is

$$u_c(\theta, x, e) = p(\theta, e)(1 + p(\hat{\theta}_e, e)) + (1 - p(\theta, e))p(x, e),$$

where x is the expected quality after failure. To obtain $u_c(\theta, x, e)$ for the best follower that cooperates we substitute $e = 1$ and $x = \check{\theta}_0$, and for the best follower, $e = 0$ and $x = \theta$. Let $\Delta(\theta) \equiv u_c(\theta, \check{\theta}_0, 1) - u_c(\theta, \theta, 0)$.

Proposition 3. We consider $p(\theta, e) = v + \theta(a_0 + a_1 e)$ with $v = 0$ since v makes failure less likely and hence makes the follower's quality less relevant. Then, $u_c(\theta, \check{\theta}_0, 1) = \frac{(a_0+a_1)(2+a_1(1-\theta)-2a_0\theta)\theta}{1-a_0\theta}$, $u_c(\theta, \theta, 0) = \theta(a_1 + a_0(2 + (a_0 + a_1)(1 - \theta)))$ and

$$\Delta(\theta) = \frac{\theta}{1 - a_0\theta}\big[a_1(1 + a_1(1 - \theta)) - a_0 a_1\theta - a_0^2(1 - \theta)(1 - (a_1 + a_0)\theta)\big],$$

Note first that $\Delta(0) = 0$ and $\Delta(1) = a_1$. We focus now on the expression between brackets, which equals $a_1(1 + a_1) - a_0^2$ if $\theta = 0$. Hence, for a sufficiently great a_0, $\Delta(\theta) < 0$ in a neighbourhood of $\theta = 0$. □

Proposition 4. Given (1), $u_c(\theta, \check{\theta}_0, 1) = 2(m + v + a\theta) + \frac{\theta m a^2(1-\theta)}{1-v-a\theta}$ and $u_c(\theta, \theta, 0) = m + 2(v + a\theta) + a^2(1 - \theta)\theta$. First, if $\theta \in \{0, 1\}$, $\Delta(\theta) = m$. Second,

$$\frac{\partial\Delta(\theta)}{\partial\theta} = a^2\big(-1 + 2\theta + m\frac{a^2\theta(1 - \theta)}{1 - v - a\theta}\big),$$

which increases in v and m. Hence, for an m sufficiently small, $\Delta(\theta) < 0$ for intermediate values of θ. □

Supplementary Appendix of

"A Model of Succession"

Álvaro Delgado-Vega — *ETH Zürich*

Benjamin Shaver — *University of Chicago*

March 21, 2024

1 Preliminary Results

Lemma 1 *Suppose* $p(\theta, e) = v + me + (a_0 + a_1 e)\theta$*, then* $p(\theta, e)$ *satisfies Assumption 1 for* $a_0, v, m > 0$*, and* $a_1 \in [0, \frac{a_0 m}{v})$*.*

Proof. Given this functional form for $p(\theta, e)$, we compute

$$\begin{aligned}
\Pr(k_l = H | \text{success and } e = 1) &= \frac{(v + m + (a_0 + a_1))\theta}{v + m + (a_0 + a_1)\theta} \\
\Pr(k_l = H | \text{success and } e = 0) &= \frac{(v + a_0)\theta}{v + a_0\theta} \\
\Pr(k_l = H | \text{fail and } e = 1) &= \frac{(1 - v - m - (a_0 + a_1))\theta}{1 - v - m - (a_0 + a_1)\theta} \\
\Pr(k_l = H | \text{fail and } e = 0) &= \frac{(1 - v - a_0)\theta}{1 - v - a_0\theta}.
\end{aligned}$$

First, $\Pr(k_l = H | \text{success and } e = 1) < \Pr(k_l = H | \text{success and } e = 1)$ when

$$\frac{(v + m + (a_0 + a_1))\theta}{v + m + (a_0 + a_1)\theta} < \frac{(v + a_0)\theta}{v + a_0\theta}.$$

Note the LHS is increasing in a_1, the RHS is constant in a_1, and the inequality holds with equality when $a_1 = \frac{a_0 m}{v}$.

Second, $\Pr(k_l = H|\text{fail and } e = 1) < \Pr(k_l = H|\text{fail and } e = 0)$ when

$$\frac{(1 - v - m - (a_0 + a_1))\theta}{1 - v - m - (a_0 + a_1)\theta} < \frac{(1 - v - a_0)\theta}{1 - v - a_0\theta}.$$

Note the LHS is decreasing in a_1, the RHS is constant in a_1, and the inequality holds with equality when $a_1 = \frac{a_0 m}{v-1} < 0$. Hence, Assumption 1 is satisfied for any $a_1 < \frac{a_0 m}{v}$. ■

2 Proofs

Proof of Proposition 1

Proof. We consider each of the cases outlined in Proposition 1.

(i.) If $\theta^f < \check{\theta}_1$, the follower cooperates if

$$\begin{aligned} & p(\theta, 1)(\varphi - w) - c > p(\theta, 0)(\varphi - w) \\ \Leftrightarrow \hat{w}^S \equiv \varphi - & \frac{c}{p(\theta, 1) - p(\theta, 0)} \geq w. \end{aligned}$$

Therefore $w = \hat{w}^S$ maximizes the leader's utility given successful implementation while ensuring the follower cooperates. Hence, $w^* \in \{\bar{w}, \hat{w}^S\}$. If $\hat{w}^S > \bar{w}$, the follower will cooperate for any feasible w, so the leader maximizes their utility by choosing the largest value of w, $w = \bar{w}$. If, on the contrary, $\hat{w}^S < \bar{w}$, the leader faces a trade-off and chooses $w^* = \hat{w}^S$ if

$$\begin{aligned} & p(\theta, 1)(\varphi + \hat{w}^S) > p(\theta, 0)(\varphi + \bar{w}) \\ \Leftrightarrow (p(\theta, 1) - p(\theta, 0))2\varphi - & c - p(\theta, 0)(\bar{w} - \hat{w}^S) > 0. \end{aligned}$$

(ii.) If $\check{\theta}_1 < \theta^f < \check{\theta}_0$, the follower cooperates if

$$\begin{aligned} & p(\theta, 1)(\varphi - w) + (1 - p(\theta, 1))b - c > p(\theta, 0)(\varphi - w) \\ \Leftrightarrow \hat{w}^V \equiv \varphi + & \frac{1 - p(\theta, 1)}{p(\theta, 1) - p(\theta, 0)} b - \frac{c}{p(\theta, 1) - p(\theta, 0)} \geq w. \end{aligned}$$

If $\hat{w}^V > \bar{w}$, the follower cooperates for any w, so the leader chooses $w = \bar{w}$. If, on the contrary,

$\hat{w}^V < \bar{w}$, the leader chooses $w^* = \hat{w}^V$ if

$$p(\theta,1)(\varphi + \hat{w}^V) > p(\theta,0)(\varphi + \bar{w})$$
$$(p(\theta,1) - p(\theta,0))2\varphi - c - p(\theta,0)(\bar{w} - \hat{w}^V) > 0.$$

(iii.) If $\check{\theta}_0 < \theta^f < \hat{\theta}_1$, the follower cooperates if

$$p(\theta,1)(\varphi - w) + (1 - p(\theta,1))b > p(\theta,0)(\varphi - 1) + (1 - p(\theta,0))b,$$

which holds for no w. Hence, the leader chooses $w^* = \bar{w}$.

(iv.) If $\hat{\theta}_1 < \theta^f < \hat{\theta}_0$, the follower cooperates if

$$p(\theta,1)(\varphi - w) + b - c > p(\theta,0)(\varphi - w) + (1 - p(\theta,0))b$$
$$\Leftrightarrow \hat{w}^T \equiv \varphi + \frac{p(\theta,0)}{p(\theta,1) - p(\theta,0)}b - \frac{c}{p(\theta,1) - p(\theta,0)} \geq 1$$

If $\hat{w}^T > \bar{w}$, the follower will cooperate for any feasible w, so the leader maximizes their utility by choose $w = \bar{w}$. If, on the contrary, $\hat{w}^T < \bar{w}$, the leader chooses $w^* = \hat{w}^T$ if

$$(p(\theta,1) - p(\theta,0))2\varphi - c - p(\theta,0)(\bar{w} - \hat{w}^T) > 0.$$

(v.) If $\hat{\theta}_0 < \theta^f$, the outcome of implementation does not affect succession. Therefore, this case is identical to the first case.

■