Successor's Dillemma

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Abstract

Successor's dilemma is a common problem for authoritarian leaders. Predecessors appoint successors in the hope that they will take over their power after their death and carry on their legacy. However, impatient and powerful successors can become predecessors biggest threat. In this paper, we answer the following questions both theoretically and empirically. Theoretically we show that successors will only be appointed when predecessors are able to remove them. After being appointed, aggressive behaviors of the successors reduce the chance of coming into office as they will be removed by the predecessor. Our sample covers 169 long-serving dictators from 102 authoritarians regimes over the period of 1875-2011. The empirical results support out theoretical predictions.

Key Words: Successor's dilemma, Autocracy. JEL Codes: D71, H10, P48

"The dictator presumably, normally hopes that his country will continue running well after he is dead, but he is likely give this hope and actions to make it likely that it will eventuate less priority than avoiding assassination... The basic problem that the dictator faces here is that if he formally anoints a successor, this gives that successor both strong motives for assassinating him and reasonable security that he will get away with it."

– Gordon Tullock, "Autocracy," 1987, pp. 151

"The favorite (successor) is sooner or later inclined to seek a secondary base in addition to his personal one, for otherwise he will perish when his patron (current dictator) does. In turn, the patron, originally attracted by the prospect of a personal servitor, without competing organizational vested interests, tends to view a favorite's attempt to build his own power base a relapse or a betrayal."

– Lowell Dittmer, "Bases of Power in Chinese Politics: A Theory and an Analysis of the Fall of the 'Gang of Four'," World Politics, 1978, pp. 26-60

1 Introduction

Around one third of countries and billions of people are currently reigned by authoritarian regimes (Geddes et. al., 2012), and authoritarianism has been a stereotype of political institution throughout the human history. In authoritarian regimes that usually run with weakly institutionalized settings, paramount rulers are commonly trapped into "successor's dilemma" as aforementioned in both economics (Tullock, 1987) and political science (Dittmer, 1978). Numerous authoritarian regimes have suffered from the successor's dilemma in the history, whereas this subject is seriously understudied in the literature. Some studies (e.g. Dittmer, 1978; Tullock, 1987) recognize the subject but do not generalize it with a systematic theory. Some other studies simply bypass the subject with strong assumptions of "elected autocracy (Besley and Kudamatsu, 2007; Wittman, 2013)" or "selectorate who participate to choose the leader (Shirk, 1993; Bueno de Mesquita et al. 2004)." In this study, we endeavor to provide a systematic framework to elaborate the successor's dilemmas in the authoritarian regimes.

A dictator who concerns about legacy of greatness need to select a successor and then allows him to build his independent power base. However, "if his effort is too successful, the current dictator will feel threatened, but if his effort is not sufficiently successful, his dictatorship will be in jeopardy when he takes over as ruler (Zhang, 2011: pp. 674)." A dictator who does not care about legacy of greatness may not appoint a successor, but that could bury the country into another form of succession dilemma which creates chaos disorder or even bloody civil war: "once an incumbent is dead, there is still the issue of fending off competitors for the dead leader's job. Ambitious challengers still need to grab control of the state apparatus, reward supporters, and eliminate rivals (Bruno de Mesquita and Smith, 2011: pp. 30)." We have observed various scenarios of "successor's dilemma" throughout human history. First, a dictator may hold office without appointing a successor until his death, e.g., Stalin in Soviet Union. After Stalin died in 1953, the next leader who assumed the paramount position – Khrushchev quickly castigated Stalin's demerits. Similarly, when a sultan died in the Ottoman ruled Turkey from 1299 until 1923, his sons ran a bloodily killing game against each until one son won out. For example, Mehmet III purportedly killed two sons and nineteen brothers in the battle for dictatorship.

Second, a dictator may appoint a successor early when he is still healthy, hoping that he can foster the successor to build up the ruling abilities. However, since it is always possible that the current dictator may change the mind, the designated successor could have a strong incentive to remove the current dictator – assassination or forced retirement. When Mao Zedong was still healthy during the 1950 - 1960s, he cracked down two succession plans because the designated successors (Liu Shaoqi and then Lin Biao) allegedly pursued pre-mature takeovers. Malaysia dictator Mahathir Bin Mohamad (1981-2002) had a brutal battle with his appointed successor Abdullah Badawi. Similarly, Zimbabwe dictator Robert Mugabe (1987 – present) appointed Joice Mujuru as the successor in 2004, but later on the successor's husband Solomon Mujuru, who was another elite politician, died in a mysterious fire in 2011.

Third, after a health dictator designated a successor who is usually much younger, the potential ruler may keep silence (without building up his power base) and hope to outlive his boss first. Spanish dictator Francisco Franco (1936-1975) appointed Prince Juan Carlos as the successor in 1969. Carlos initially promised to keep the fascist regime and did not pursue a pre-mature succession. After Franco died in 1975, Carlos quickly democratized the country.

Fourth, a dictator may defer the succession plan until his health deteriorates, which renders the successor limited time and thin opportunities to build his own power base. The successor, after the takeover, usually pursues major institutional reforms driven by external pressure or internal motivation. Venezuela dictator Hugo Chavez (1999-2013) designated his former driver Nicolas Maduro as the successor right before his death in 2013. After barely won the presidential campaign which was allegedly a corrupt election, Maduro quickly hit into the power battle against the opposition parties. In November 29, 2013, he announced a series of major policy reforms.

Finally, although "hereditary monarchies tend to be domestically more peaceful than other forms of autocracy (Tullock, 1987, pp. 215)," incumbent autocrat may still be ousted by his successor – his son or his relative. In China's Tang Dynasty around the 600's, Emperor Li Yuan was ousted by son Li Shiming. In Iran's dictatorship in the 1970's, Reza Khan was replaced and ousted by his son. Furthermore, when a dictator who does not have direct heirs passes away, the country may easily run into a brutal battle for crown (e.g. after England's King Richard the Lionheart deceased in 1199).

Based on the historical evidence from Mexico (under Institutional Revolutionary Party from 1929 to 2000) and China (after Deng Xiaoping's "South Tour" in 1992), the only realistic solution

to the successor's dilemma is an institutionalized party system that normally features term and age limits. The Mexicana case is called "hegemonic-party autocracies (Huntington, 1968)" by Magaloni (2006), and the Chinese case is named "dual-generation designation of successors" by Zhang (2011). As Olson (1993) holds, a regime turns into a power-sharing government rather than a personal dictatorship mainly because of historical coincidence - no one can single out from other elites . In this study, we focus on a more general scenario where an existing dictator faces a succession decision.

The rest of the paper is organized as follow. Section 2 provides literature review. Section 3 develops our theory. Section 4 reports our empirical strategy and our data. Our empirical results are reported in Section 5 while the robustness checks are shown in Section 6. We conduct further studies on succession success in Section 7. Finally, we conclude in Section 8.

2 Literature Review

In this literature review, we first explore the motives of autocrats, especially why they are concerned about their legacy of greatness. Second, we survey prevailing theories of autocratic succession. Finally, we conclude by addressing how successor's dilemma is mistreated in the prevailing theories. We find that the literature of autocratic successions is flawed with the lack of micro-strategic and motive-driven foundations, and that the successor's dilemma is underexplored in the literature.

2.1 Autocrats' Concern of Legacy

Psychological explanations of autocratic elites have been working around since the Ancient Greeks in the West and Confucius in the East. Modern political psychologists have explored elites' psychological world through such lens as personalities (Greenstein, 1987), ideological preferences (Lane, 1962, 1969), international relations (Etheredge, 1978), etc. In a recent survey by Hart (2008), he concludes that "the hitherto separate worlds of elite and electoral studies are converging in their joint awareness of the growing 'personalization' of power and authority (Hart, 2008: pp. 18)." However, it remains an underexplored question to consider "why political scientists would turn to psychology to understand political life (Hart, 2008: p. 5)," and it is a serious theoretical gap to understand the mindset of autocrats behind of their "iron masks." In particular, how do autocrats concern about their legacy of greatness? Why and why not do they designate successors before their death?

Romero (2013)'s literature survey finds that there is a very thin literature upon the motivation of presidential legacy: "It has been almost two decades sine Aldrich (1993;pp.59) notes that there is no plausible specification of presidents' motives in the literature. Unfortunately, his claim remains mostly true (pp. 4)." Despite there is a flood of literature on elite behaviors across countries, much less attention has been given to understanding of elites' motivations. Thus, it is a serious gap in the literature on why elites (especially, those autocrats who more or less execute repression over the citizens) care about their post-mortem reputation – so called "the legacy of greatness."

Historical evidence suggests that many, if not all, democratic presidents and autocratic rulers do care about their legacy of greatness. For almost 2000 years in ancient China, Confucius thought was the ruling philosophy that strongly advocates Liu Fang Bai Shi ("leaving a good name for posterity"). Confucious (2010) writes in the Analects of Confucius that what a ruler must care most is not his death but his immortal fame. Mao Zedong designated his first successor Liu Shaoqi immediately after Soviet Union suffered a failed post-mortem succession from Stalin to Khrushchev in 1957. That clearly indicates Mao's strong concern about the continuity of his political ideology. Many democratic presidents hold motives of legacy, too. Alexander Hamilton (1788) argued in the Federalist 76 that "one-man structure of the presidency motivates executives to be concerned for their own reputations, which acted as an effective constraint to presidential abuse of power (cited from Romero, 2013)." In addition, political business cycle theory (starting with Nordhaus, 1975) finds that US presidents usually behave "he as himself" at the second presidential term when he is no longer constrained by the re-election motive. Therefore, it appears that top leaders more or less care about their own reputations. Mexican President Felipe Calderon (2006-2012)'s statement exemplifies the mindset of people of his like: "I would like the violence to come to an end (\ldots) . I would, of course, like to be remembered for the things I have done for education, for the hospitals (\ldots) , for the environment. No. I will likely be remembered for this issue (the fight against organized crime) and, probably, with great unfairness."

To dialogue psychology with political science, we refer to the rationality of "human nature in politics (Simon, 1985)" for which we dissect the preferences political elites as "economic man" with the use of rational-analytical framework. In other words, not only do we observe political behaviors of elites following mainstream approaches in political science, but also we examine the internal or adaptive rationalities behind those political behaviors. We emphasize that rational elites be understood within the contexts of political structure – formal institutions and informal group norms. That is to say, we follow Tullock (1974, 1987, 2005) and Wintroboe (1991, 1998)'s political economy of dictatorship that anatomizes micro-incentives and strategic behaviors of autocrats under various institutions. On one hand, this approach is different from mainstream political science which explicitly or implicitly argues that "macro- and meso-level factors largely determine what goes on in politics (Hart, 2008: p.6)."

Mueller (2003) summarizes that the primary goals of autocrats include consumption, power and security. Obviously, he has neglected a fourth goal of autocrats that is the "legacy of the greatness." In this study, our theory follows Tullock (1987)'s statement: "we... assume that he (a dictator) is in fact concerned about the status of his country after he dies....The dictator presumably, normally hopes that his country will continue running well after he is dead (pp. 151)."

2.2 Autocratic Succession

Based on historical survey by Geddes et al. (2012), there were 280 autocracies in existence after World War II but "fewer than one quarter of leadership changes results in democratization (pp. 1)." However, rich empirical evidence does not cultivate a general theory of autocratic succession. Autocratic succession, as a research topic, is not merely about the rational autocrat's optimal choice, not just about the strategic interactions with his allies at the elite level, but rather, how these interactions correspond with the disenfranchised citizens.

Pye (1976) nicely summarizes that "social sciences in general are not very good at dealing with succession problems in any non-electoral context. The difficult is that succession issues are usually resolved by the maneuvering of a few principals at the pinnacles of power, while the social sciences are best only at explaining or predicting behavior at the two extremes of mass action (sociology) and individual conduct (depth psychology). That explains why the studies of autocratic succession have been largely "single-country focused (Kennedy, 2008)." For examples, there are many comparative politics studies upon China's leadership succession, notably, Robinson (1974), Sandschneider (1985), Dittmer (1990) and Shambaugh (2001). To have a generalized theory of autocratic succession, we ought to abstract the theory of the core micro-interactions from social complexity. This theory should be applicable to various countries.

There are three prevailing schools that parallelly contribute to the political economy of dictatorship, but neither has answered Pye (1976)'s call for a micro-based social vision of autocratic succession. Public choice school, led by Wintrobe (1998), starts the micro-based analysis with the motives of dictators. However, few, if any, works have followed Tullock (1974, 1987)'s proposal to study the motive of "legacy." Zhang (2011) is a notable exception.

Comparative political economy school, featuring with the "selectorate theory" by Bueno de Mesquita et al. (2003) and Bueno de Mesquita and Smith(2011), does not leave sufficient scope to explore the autocratic succession. For one thing, followers of the "selectorate theory" (such as McGillivry and Smith, 2008; Boix and Svolik, 2013) commonly assume that there does exist a visible challenger against the dictator. By assumption, they consider challenger as a nonstrategic actor and his offer as an exogenous parameter. Thus, this theory does not allow a core feature of autocratic succession that a dictator appoints a successor who is in turn a potential challenger. For the other thing, this theory assumes political agents are identical. Consequently, there is no need to discuss the changes of loyalty when the ruling coalition is reconstructed in and out of the selectorate, because all selectorate members are homogenous. In this theory, what matters is the size of the ruling coalition compared to that of the selectorate, rather than the mixture compositions of the individual selectorate members. That is to say, the selectorate theory is not based on individual preferences that are the micro-foundation, and any random member out of the selectorate could be plugged in as the successor.

New political economy school, exemplified by Acemoglu and Robinson (2006), does lift the homogeneity assumption that "widens the strategy set of the ruler (Sekeris, 2010)." With the adoption of dynamic games, this school offers rich literature on both the bottom-up revolutions and the intra-elite conflicts. Nevertheless, this school has not successfully addressed two crucial questions: (1) how disenfranchised citizens overcome collective actions problem towards revolution? This drawback has been carefully criticized by Svolik (2012); (2) Why is "loyalty of elites" an exogenous parameter? This exogeneity assumption has been adopted by many studies of intro-elite conflicts (e.g., Egorov and Sonin, 2011). In the cases of autocratic succession, however, loyalty of successors does not appear to be exogenously given. Initially, a dictator is unlikely to appoint a successor who is less loyal. Later on, the successor may alter his loyalty attitude once he is in place, and he may choose to hide his disloyalty from the very begining. Most importantly, after the successor has accumulated sufficient power base, his loyalty will be more or less suspected by the dictator.

2.3 The Successor's Dilemma

Autocratic succession could be peaceful or bloody, and it more likely eventuates to another autocrat. A rational autocrat has to consider a crucial question of "who is the next?" Since "leader change provides opportunities to restart cooperative relations between teams (McGillivry and Smith, 2008: pp. 148)," the existent ruler and his entire ruling coalition would like to designate a successor who "was seen as someone likely to continue the programs and projects of the prior leader (Bueno de Mesquita and Smith, 2011: pp. 33)."

Among the literature on the political economy of dictatorships, there are two conflicting views upon the likelihood of the successor's dilemma. One group of studies consider that successor is placed on a hot seat . Most of these studies are country-specific cases. One exception is Kennedy (2008), which is a generalized study that examines the incentives of authoritarian elites where leadership succession is designated. He implicitly discussed the possible betrayal of the designated successors. Authoritarian leaders "face an incentive to appoint weak successors to executive office to prevent being excluded from access to government resources by an independent powerful leader (pp. 1)." He further argues that dictators who designate successor tend to suffer shorter tenures and to name older successors. However, Kennedy (2008) does not offer a systematic theory that is much needed in the literature. What's more, this study does not comprehensively study the complexities of autocratic succession as laid out in the Introduction Section of this study.

Another group of studies do not recognize the significance of the successor's dilemma. Bueno de Mesquita and Smith (2011) argues that the designated successor usually comes from the existing winning coalition, and thus "the new, designated successors might even enhance the old boss's reputation (pp. 33)." Svolik (2012) holds that "when established autocrats ultimately leave office, it is most likely by a process that is unrelated to the interaction with their allies (pp. 7)." Apparently, those theories could be amended with the consideration of the successor's dilemma.

3 The Theoretical Model

3.1 The Model Setup

In this section, we provide a model to explain when a dictator (D) chooses to appoint a successor (S). The dictator's incentive to appoint a successor is for passing on his own legacy after death, which gives him an expected payoff equals to g > 0. However, the successor may want to rebel against the dictator. The dictator can ouster the successor through either elite contest or mobilizing the citizens (Z). The citizens will choose between to take part in the social mobilization or not. The game is separated into two stages: the Pre-mortem stage and the Post-mortem stage. In the Pre-mortem stage, the struggle is between the incumbent dictator and the successor. In the Post-mortem stage, the struggle is between the successor and the rest of the ruling elites.¹

We normalize the payoffs for being overthrown from power to be 0 and the payoffs from holding power to be R > 0. This assumption is also consistent with the existing literature which models politicians' incentive for holding office as getting some positive rent.

The detailed setting of the game is as the following:

3.1.1 Stage1. The Pre-mortem succession struggle:

In the Pre-mortem stage, the sitting dictator first decides whether to appoint a successor ($\lambda = 1$) or not ($\lambda = 0$). If the dictator doesn't appoint any successor, the benefit of legacy after his death is 0. If the dictator chooses to appoint a successor, he might be able to pass on his legacy but at the same time facing the potential rebellion of the successor. While the dictator is motivated to appoint a successor by his legacy, the successor rebels to gain his rents in office earlier.

The Pre-mortem successor struggle starts with a fight over the incumbent's power base, of which the size is normalized to be one.² The successor endeavours to build his own power base within the incumbent's power base $\theta \in [0, 1]^3$. The power base, θ , could be used for Pre-mortem succession struggle to rebel against the dictator or protect himself when the dictator tries to ouster him. The power base, θ , is also necessary for the successor to win Post-mortem succession struggle once the predecessor is gone. The larger the successor's power base, the smaller the dictator's, as the dictator's power base equals the rest of the ruling elites, i.e. $1 - \theta$.

As the successor's power could threat the incumbent's position, after observing the size of

¹Our model incorporate two main problems in authoritarian regimes as pointed out by Svolik (2013) and Ghandi (2008). The first stage deals with a special case of authoritarian control where the mass is mobilized to ouster the successor who is a part of the elite group. The second stage is a classical case of authoritarian power-sharing.

²The power base of the incumbent is the smallest group of supporters needed for him to stay in power. Its concept is close the allies of a dictator in Svolik (2013) and the winning coalition defined in Bueno de Mesquite et al. (2003). Since we are focusing on authoritarian regimes with similar political setup, we do not consider the size of the winning coalition or the size of the selectorate.

 $^{^{3}}$ Here we follow Bueno de Mesquita et. al (2003) and assume homogeneity among the incumbent and the successor.

the successor's power base, the dictator has three choices: to acquiesce ($\alpha = 0$), or to oust the successor through elite contest($\alpha = 1$), or to oust the successor via social mobilization ($\alpha = 2$). Here the choice of ousting the successor is basically an elite contest between the dictator and the successor, which is different from social mobilization where disenfranchised citizens get involved.

Whether social mobilization is feasible depends on how well the dictator can mobilize and coordinate the citizens, i.e. to solve the collective action problem of the citizens. Let η to measure the feasibility of social mobilization. A global game is employed to model the collective action problem of mobilizing the citizens. We assume a continuum of citizens of mass 1^4 , indexed by i. For each citizen, the benefit of joining the dictator to eliminate the successor is B if the dictator wins the struggle. Here B represents the dictator's popularity among the citizens or the benefits he can bring. The benefits include redistribution and ideological/theological benefits (Acemoglu and Robinson, 2006).⁵ If the dictator loses the struggle, the citizens who joined the dictator will receive the payoff of -C, where C represents the punishments of those who participated in the collective action which is positively related to the level of democracy. The reason is that after the dictator ousters the successor via social mobilization, he is basically free from any threat from the mass or the elites, which implies the possibility of a one-man's rule and less policy concessions (Svolik, 2013, Ch3). Moreover, as mentioned in Persson and Tabilni (2009), a nation's historical experience with democracy contributes to a country's democratic capital, which promotes capital formation, economic development and democratic consolidation. When facing the same process to a more autocratic regime, regimes with a higher political score experience a higher drop in its democratic capital.

A social mobilization wins when the fraction of citizens who follow the dictator ϕ exceeds a threshold value ϕ^* , i.e. $\phi > \phi^*$ where $\phi \in [0, 1]$. Meanwhile, a dictator with higher military competence may have a higher chance to successfully eliminate a successor through social mobilization because a smaller proportion of citizens is required to win the struggle or he has a better connection with the military. Thus, we assume ϕ to be function of the incumbent's military competence m, i.e. $\phi^* = f(m)^6$. We assume that all aspect of this setting except the military competence of the dictator m are common knowledge. If the dictator can successfully mobilize the citizens to eliminate the successor, the game ends, the dictator will get only the payoff from holding current office R but no legacy payoff g, meanwhile the successor will get 0 payoff. If the dictator fails to oust the successor, the game ends, the dictator gets a payoff of 0 and the successor gets a payoff of R.

If the dictator chooses to oust the successor through elite contest, he will succeed when $1 - \theta + \sigma > \theta$. $\sigma \in [0, 1]$ is a parameter representing the incumbent dictator's advantage. It is drawn from a distribution whose cdf is $F(\sigma)$. The expectation of σ is $\overline{\sigma}$. We follow Bueno

 $^{^{4}}$ Here the size of the citizens is independent of the size of the ruling elite. Assuming any different sizes will not change the results.

⁵In Zhang et al. (2015), they use Mao's cultural revolution as a case to show how a dictator can use ideological benefits to solve citizens' collective-action problem.

⁶We assume f'(.) < 0, $f^{-1}(0) = 1$, $f^{-1}(+\infty) = 0$.

de Mesquita et. al (2003, p.91), recall that the challenger is inherently disadvantaged in the provision of private goods, therefore, the dictator always has an positive advantage in the struggle with the successor which is called the "incumbency advantage" in the political science literature (see also McGillvry and Smith 2008: p.81). Define the probability the dictator wins the contest to be $\gamma_D(\theta, \sigma)$. It is not difficult to see that if $\theta \in [0, \frac{1}{2}]$, the dictator always wins the contest, i.e. $\gamma_D(\theta, \sigma) = 1$; and if $\theta \in [\frac{1}{2}, 1]$ the dictator wins the contest with probability $\gamma_D(\theta, \sigma) = 1 - F(2\theta - 1)$. If the dictator successfully outs the successor through elite contest, the game ends, the dictator gets a payoff of R and the successor gets a payoff of 0. If the dictator fails to oust the successor, the game ends, the dictator gets a payoff of 0 and the successor gets a payoff of R.

If the dictator chooses to acquiesce, then, the successor determines whether to initiate a rebellion to against ($\rho = 1$) the dictator or not ($\rho = 0$). If the successor decides to overthrow the dictator, the successor will succeed if and only if $\theta > 1 - \theta + \sigma$. Define the probability the successor wins the contest to be $\gamma_S(\theta, \sigma)$. It is not difficult to see that if $\theta \in [0, \frac{1}{2}]$, the successor always loses the contest, i.e. $\gamma_S(\theta, \sigma) = 0$; and if $\theta \in [\frac{1}{2}, 1]$ the successor wins the contest with probability $\gamma_S(\theta, \sigma) = F(2\theta - 1)$. If the rebellion is successful, the game ends. The dictator gets a payoff of 0, while the successor gets a payoff of R. If the rebellion fails, the game ends, the dictator gets a payoff of R, while the successor gets a payoff of 0.

If the successor does not initiate a rebellion to overthrow the dictator, the game continues. The dictator will get the legacy payoff in case his designated successor successfully carry on the dictator's legacy after the dictator is gone. The probability that the successor can successfully sustain the leadership after the dictator is gone is endogenously decided by the Post-mortem succession game.

3.1.2 Stage2. The Post-mortem succession struggle:

After the dictator passed away, the successor's power base is θ . As suggested by Svolik (2013), the widespread secrecy and desire for more power would motivate the dictator to take opportunistic behavior and grab power from the rest of the ruling group. In the fear of power grabbing behavior of the successor, the rest of the dictator's old power base $1 - \theta$ become the successor's challenger for the throne. The successor can successfully win the post-mortem succession struggle if and only if $\theta + n > 1 - \theta$, $n \in [0, 1]$ is the military competence level of the successor. Let $\pi(\theta, n)$ be the probability the successor wins the Post-mortem succession struggle.

The dictator's expected utility function when the successor does not rebel ($\rho = 0$) is $EU^D = \pi(\theta, n)g + R$, where $\pi(\theta, n)$ is the probability that the successor sustain the leadership after the dictator is gone, and g > 0 is the legacy payoff for the dictator.

The successor's payoff of becoming the new leader is βR , where $\beta \in [0, 1]$, is the discount factor, which can be seen as the measure of patience of the successor. Here we assume that the value of β is only observable to the successor.

3.2 Timeline

The timing of the baseline game can be summarized as the following:

- 1. In the Pre-mortem stage, the dictator decides whether to appoint a successor: $\lambda = \{0, 1\}$ where $\lambda = 1$ means that the dictator appoints a successor.
- 2. The successor decides the size of the power base he would like to build: $\theta \in [0, 1]$.
- 3. The dictator decides $\alpha = \{0, 1, 2\}$ where $\alpha = 0$ means to acquiesce, $\alpha = 1$ means to ouster successor via elite contest, $\alpha = 2$ means to eliminate the successor via social mobilization.
- 4. The successor decides whether to rebel against the dictator: $\rho = \{0, 1\}$ where $\rho = 1$ means that the successor rebels. The Pre-mortem stage ends.
- 5. In the Post-mortem stage, the dictator passes away, the successor wins the Post-mortem succession struggle with probability $\pi(\theta, n)$.

The notation used is summarized in the Table 1 :

[Insert Table 1 about here]

3.3 The Equilibria

We solve the game from backwards. First we explain the Post-mortem succession, and then illustrate when social mobilization would be a feasible option. Based on whether the incumbent can mobilize the citizens and be ousted by the successor, we reach the three equilibria of our model: 1) the infeasible social mobilization equilibrium where social mobilization is infeasible and the incumbent will never appoint a successor; 2) the acquiescence equilibrium where although social mobilization is feasible but incumbent will never appoint a successor because the successor could ouster him in the pre-mortem struggle; and 3) the appointment equilibrium where the incumbent appoints a successor when the incumbent can ouster him and is not threaten by him.

3.3.1 The Post-mortem succession

After the dictator passes away, the struggle is between the successor's own power base, θ , and the rest of the dictator's old power base $1 - \theta$. The successor can successfully win the post-mortem succession struggle if and only if $\theta + n > 1 - \theta$. If $\theta \in \left[\frac{1}{2}, 1\right]$, the successor always wins the Post-mortem succession struggle, i.e. $\pi(\theta, n) = 1$ for any n. If $\theta \in \left[0, \frac{1}{2}\right]$, the successor wins with probability $\pi(\theta, n) \in [0, 1]$.

3.3.2 Whether social mobilization is a feasible option

We assume that each citizen *i* receives a private signal m_i of *m* which are independent across the citizens. Given the citizens live under the same regime, their private information on *m* are correlated. In particular, m_i is distributed uniformly on the interval $[m - \varepsilon, m + \varepsilon]$. Thus each citizen's signal contains a small idiosyncratic noise. Given our assumptions about the distribution of m_i , each citizen has an unbiased estimate of *m*. More precisely, after citizen *i* observes the signal m_i , he believes that *m* is distributed uniformly on the interval $[m_i - \varepsilon, m_i + \varepsilon]$, and his expectation of *m* is m_i . For expositional simplicity, we assume *m* has a uniform prior density on the interval $[0, 1]^7$.

Suppose that each citizen follows a threshold strategy. If $m_i > m^*$, then citizen *i* chooses to join the social mobilization; and if $m_i < m^*$, then citizen *i* chooses not to join the social mobilization. For this strategy to be optimal, when $m_i = m^*$, citizen *i* must be indifferent between joining the social mobilization or not. This requires

$$P(\phi \le \phi^* \mid m_i = m^*)(-C) + [1 - P(\phi \le \phi^* \mid m_i = m^*)]B = 0.$$
(1)

Then a citizen who observes the signal m_i is indifferent between joining the social mobilization or not if

$$P(\phi \le \phi^* \mid m_i = m^*) = \frac{B}{B+C}.$$
 (2)

Denoting h the proportion of citizens who join the social mobilization, then this proportion is $h = \frac{m + \varepsilon - m^*}{2\varepsilon}$.

Thus,

$$P(\phi \leq \phi^* \mid m_i = m^*) = P(h \leq \phi^* \mid m_i = m^*)$$

= $P(\frac{m + \varepsilon - m^*}{2\varepsilon} \leq \phi^* \mid m_i = m^*)$
= $P(m < m^* + 2\phi^*\varepsilon - \varepsilon \mid m_i = m^*)$
= $\frac{(m^* + 2\phi^*\varepsilon - \varepsilon) - (m^* - \varepsilon)}{2\varepsilon} = \phi^*.$ (3)

Thus,

$$\phi^* = \frac{B}{B+C}.\tag{4}$$

Substitute $\phi^* = f(m)$ into Eq (4), we can solve for the threshold competence,

$$m^* = f^{-1}(\frac{B}{B+C})$$
(5)

The equilibrium thresholds on the competence of the dictator characterize a unique equilibrium and imply a simple and intuitive relation between the likelihood of a successful social mobilization and the key political and economical parameters in our setting. We can see,

⁷The present result would not change if assume m is distributed normally, see eg. Morris and Shin (2003).

 $\frac{dm^*}{dB} = f^{-1} \left(\frac{B}{B+C}\right)' \left[\frac{C}{(B+C)^2}\right] < 0, \ \frac{dm^*}{dC} = f^{-1} \left(\frac{B}{B+C}\right)' \left[-\frac{B}{(B+C)^2}\right] > 0, \ \text{which means a more popular dictator or a lower cost of a failed social mobilization against the successor decrease the threshold competence <math>m^*$ of the dictator, thereby increase the feasibility of a feasible social mobilization, i.e. $\eta = f^{-1} \left(\frac{B}{B+C}\right)$. Moreover, $\lim_{B\to 0} m^* = 0$, and $\lim_{C\to+\infty} m^* = 0$. It means when $B \to 0$ or $C \to +\infty$, social mobilization is not a feasible option for the dictator.

Proposition 1. In a unique Bayesian Nash Equilibrium, a citizen *i* chooses to join the social mobilization if $m_i > m^*$, and not to join the social mobilization if $m_i < m^*$, $m^* = f^{-1}(\frac{B}{B+C})$.

3.3.3 When social mobilization is infeasible

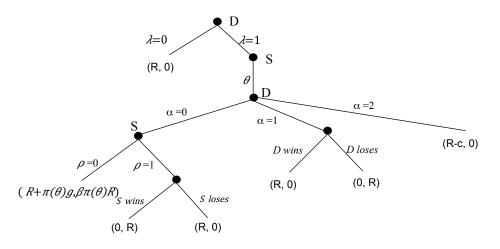
When the cost of a failed social mobilization against the successor is extremely high or the benefit after a successful social mobilization is close to 0, social mobilization is infeasible. The dictator will always choose to acquiesce to the successor given any θ . The intuition is that there is no first-mover advantage in the subgame where the dictator and successor fight with each other, however, when acquiescing to the successor, the incumbent still have a chance of getting his legacy whereas ousting the successor implies that his legacy is forgone (see the formal proof in the appendix). The successor will thus always build the maximum power base $\theta = 1$, and will always overthrow the dictator. Anticipating this, the optimal choice for the dictator is not to set up a successor.

Proposition 2. There exists an unique sub-game perfect equilibrium where the dictator would never appoint a successor ($\lambda = 0$), the successor would always build the maximum power base ($\theta = 1$), the dictator would acquiesce to the successor ($\alpha = 0$), and the successor would overthrow the dictator ($\rho = 1$).

The proof of this proposition is provided in the appendix.

3.3.4 When social mobilization is feasible

When the cost of a failed social mobilization against the successor is not too high or the benefit after a successful social mobilization is positive, social mobilization becomes feasible. In the subsection, we study the succession struggle when it may be possible for the dictator to eliminate the successor via social mobilization. Therefore, after observing the size of the successor's power base, the dictator has three choices: to acquiesce ($\alpha = 0$), to oust the successor ($\alpha = 1$), or to eliminate the successor by using social mobilization ($\alpha = 2$). See Figure 1 for the game tree. Figure 1: Game Tree when Social Mobilization is Feasible



If the dictator decides to eliminate the successor by using social mobilization, he can always win the struggle and remove the successor successfully with probability $\eta = f^{-1}(\frac{B}{B+C})$. But the dicator will not get any legacy payoff in the future, so his payoff after successfully eliminating the successor using social mobilization is R. Meanwhile, social mobilization costs the dictator C > 0. After being ousted by a social mobilization, the successor gets a payoff of 0.

If the successor's power base is $\theta \in [0, \frac{1}{2}]$, the successor will never betray the dictator. Therefore, the dictator's best response is to acquiesce to his successor ($\alpha = 0$). If $\theta \in [\frac{1}{2}, \frac{1+\sigma}{2}]$, the dictator will always win if he tries to oust the successor. Therefore, the best response for the dictator is to acquiesce the successor, i.e. $\alpha = 0$. If $\theta \in [\frac{1+\sigma}{2}, 1]$, i.e. the successor's power base is large enough, the dictator cannot oust the successor because the dictator will always lose the struggle. The dictator will choose between to acquiesce the successor ($\alpha = 0$) or to eliminate the successor by using social mobilization ($\alpha = 2$).

The expected utility of the dictator from acquiescence is,

$$EU^{D}(\alpha = 0 | \theta \in \left[\frac{1+\sigma}{2}, 1\right]) =$$

$$= P(\rho = 1)(1 - \gamma_{S}(\theta, \sigma))R + P(\rho = 0)\pi(\theta, n)(R+g)$$

$$= (1 - G(\beta^{*}))(R+g)$$
(6)

The meaning is: if the dictator acquiesces his successor, with probability $P(\rho = 1)$ the rebellion happens which fails with probability $1 - \gamma_S(\theta, \sigma)$, then the dictator will receive all the rent while he is in power R; with probability $P(\rho = 0)$, no rebellion happens, and the dictator will receive all the rent in power R and the legacy payoff g after his death if the successor can win the post-mortem succession struggle with probability $\pi(\theta, n)$. Note that when $\theta \in \left[\frac{1+\sigma}{2}, 1\right]$, $\gamma_S(\theta, \sigma) = 1, \pi(\theta, n) = 1$.

The expected utility of the dictator from eliminating the successor by using social mobiliza-

tion is,

$$EU^{D}(\alpha = 2|\theta \in \left[\frac{1+\sigma}{2}, 1\right]) = \eta R.$$
(7)

$$EU^{D}(\alpha = 0|\theta \in \left[\frac{1+\sigma}{2}, 1\right]) - EU^{D}(\alpha = 2|\theta \in \left[\frac{1+\sigma}{2}, 1\right]) =$$
$$= (1 - G(\beta^{*}))(R+g) - \eta R$$

Denote $\Gamma(C, R, g, \theta) = (1 - G(\beta^*))(R + g) - \eta R$, which is the net opportunity cost for the dictator to choose to launch social mobilization when $\theta \in \left[\frac{1+\sigma}{2}, 1\right]$. When $\Gamma(C, R, g, \theta) \ge 0$, $EU^D(\alpha = 0 | \theta \in \left[\frac{1+\sigma}{2}, 1\right])$ is always greater than $EU^D(\alpha = 2 | \theta \in \left[\frac{1+\sigma}{2}, 1\right])$, so the dictator's best response is choosing to acquiesce $(\alpha = 0)$. When $\Gamma(C, R, g, \theta) \le 0$, $EU^D(\alpha = 0 | \theta \in \left[\frac{1+\sigma}{2}, 1\right])$ is always smaller than $EU^D(\alpha = 2 | \theta \in \left[\frac{1+\sigma}{2}, 1\right])$, so the dictator's best response is choosing to acquiesce $(\alpha = 0)$. When $\Gamma(C, R, g, \theta) \le 0$, $EU^D(\alpha = 0 | \theta \in \left[\frac{1+\sigma}{2}, 1\right])$ is always smaller than $EU^D(\alpha = 2 | \theta \in \left[\frac{1+\sigma}{2}, 1\right])$, so the dictator's best response is choosing to acquiesce $(\alpha = 0)$.

Proposition 3. When $\Gamma(C, R, g, \theta) \ge 0$, the dictator's best response is acquiesce to the successor given any θ . When $\Gamma(C, R, g, \theta) \le 0$, the dictator's best response is to eliminate the successor by using social mobilization if $\theta \ge \frac{1+\sigma}{2}$, and acquiesce to the successor if $\theta \le \frac{1+\sigma}{2}$.

Note that $\frac{\partial \Gamma(C,R,g,\theta)}{\partial R} < 0$, $\frac{\partial \Gamma(C,R,g,\theta)}{\partial g} = 1 - G(\beta^*) > 0$, $\frac{\partial \Gamma(C,R,g,\theta)}{\partial \theta} = -2\varphi(F(2\theta-1))f(2\theta-1) < 0$, $\frac{\partial \Gamma(C,R,g,\theta)}{\partial C} > 0$, $\frac{\partial \Gamma(C,R,g,\theta)}{\partial B} < 0$.⁸ It means, the dictator is more willing to use social mobilization to eliminate the successor if the cost of a failed social mobilization and the legacy payoffs are smaller, and if the rent from holding office, the power base the successor has built, and the benifit of a successful social mobilization are larger.

Next, we can look at the successor's choice on the size of power base θ . When $\Gamma(C, R, g, \theta) \ge 0$, the successor's optimal choice is still $\theta = 1$, because the dictator will always acquiesce. When $\Gamma(C, R, g, \theta) \le 0$, the successor's expected payoffs given the dictator's choice of α are:

$$EU^{S}(\theta|\alpha=2) = (1-\eta)R \tag{8}$$

if the dictator decided to eliminate him, and

$$EU^{S}(\theta|\alpha=0) = P(\rho=1)\gamma_{S}(\theta,\sigma)R + P(\rho=0)\pi(\theta,n)\beta R$$
(9)

if the dictator acquiesce.

If $(1 - \eta) > P(\rho = 1)\gamma_S(\theta, \sigma) + P(\rho = 0)\pi(\theta, n)\beta$, the successor's optimal choice is still $\theta = 1$, because the probability that the social mobilization can win is quite low, so dictator's best response is still to acquiesce.

 $^{{}^{8}\}varphi(.)$ is the density function of G(.).

If $(1-\eta) < P(\rho=1)\gamma_S(\theta,\sigma) + P(\rho=0)\pi(\theta,n)\beta$, then it is obvious that the successor prefers to keep the size of θ moderate so that the dictator will tolerate him. The best response of the successor can be written as,

$$\theta = \arg \max_{prob(\alpha(\theta)=0)=1} EU^{S}(\theta|\alpha=0).$$
(10)

Given the successor's expected utility $EU^{S}(\theta | \alpha = 0)$ is increasing in θ , the successor's best response is to build a power base of size $\theta^* = \frac{1+\overline{\sigma}}{2}$, where $\overline{\sigma}$ is the successor's expectation of σ . The dictator's real action depends on whether the realization of the value of σ is bigger or smaller than $\overline{\sigma}$. If $\sigma \geq \overline{\sigma}$, the dictator will choose to acquiesce; while if $\sigma \leq \overline{\sigma}$, the dictator will choose to launch a social mobilization to remove the successor.

Finally, we look at the dictator's choices on whether to set up a successor. If $\Gamma(C, R, g, \theta) \ge 0$, or $(1 - \eta) > P(\rho = 1)\gamma_S(\theta, \sigma) + P(\rho = 0)\pi(\theta, n)\beta$, the dictator's best response is not to set up a successor, i.e. $\lambda = 0$. Because, otherwise his designated successor will overexpand his power base to $\theta = 1$ and will overthrow the dictator from power. When $\Gamma(C, R, g, \theta) \le 0$, and $(1 - \eta) < P(\rho = 1)\gamma_S(\theta, \sigma) + P(\rho = 0)\pi(\theta, n)\beta$, the dictator will set up a successor if and only if $EU^D(\lambda = 1) \ge EU^D(\lambda = 0)$.

$$EU^{D}(\lambda = 1) =$$

$$= P(\sigma \le \overline{\sigma})(1 - \eta)R + P(\sigma \ge \overline{\sigma})P(\rho = 1)(1 - \gamma_{S}(\theta, \sigma))R + P(\rho = 0)\pi(\theta, n)(R + g)$$

$$= \frac{1}{2}(1 - \eta)R + \frac{1}{2}(R + (1 - G(\beta^{*}))g)$$

$$= R + \frac{(1 - G(\beta^{*}))g - \eta R}{2}$$
(11)

$$EU^D(\lambda = 0) = R \tag{12}$$

$$EU^{D}(\lambda = 1) - EU^{D}(\lambda = 0) = \frac{(1 - G(\beta^{*}))g - \eta R}{2}$$
(13)

Let $\Psi(C,g) = \frac{(1-G(\beta^*))g-\eta R}{2} = \frac{(1-G(\beta^*))g-f^{-1}(\frac{B}{B+C})R}{2}$. $\Psi(C,g)$ can be seen as the net opportunity cost for the dictator to choose not to set up a successor. If $\Psi(C,g,\theta) \ge 0$, the dictator's best response is $\lambda = 1$; and $\lambda = 0$, otherwise.

Proposition 4. With the possibility of initiating social mobilization, when $\Gamma(C, R, g, \theta) \geq 0$, or $(1 - \eta) > P(\rho = 1)\gamma_S(\theta, \sigma) + P(\rho = 0)\pi(\theta, n)\beta$, there exists an unique sub-game perfect equilibrium where the dictator would never appoint a successor ($\lambda = 0$), the successor would always build the maximum power base ($\theta = 1$), the dictator would acquiesce to the successor ($\alpha = 0$), and the successor would rebel against the dictator ($\rho = 1$).

Proposition 5. With the possibility of initiating social mobilization, when $\Gamma(C, R, g, \theta) \leq 0$,

and $(1 - \eta) < P(\rho = 1)\gamma_S(\theta, \sigma) + P(\rho = 0)\pi(\theta, n)\beta$, there exists a sub-game perfect equilibrium where the dictator would appoint a successor $(\lambda = 1)$ if $\Psi(C, g) \ge 0$, the successor would always build a power base $\theta^* = \frac{1+\overline{\sigma}}{2}$, the dictator would acquiesce to the successor $(\alpha = 0)$ if $\sigma \ge \overline{\sigma}$, and would eliminate the successor by launching a social mobilization $(\alpha = 2)$ if $\sigma \le \overline{\sigma}$. The successor would rebel against the dictator $(\rho = 1)$, if $\beta \le \beta^*$.

3.4 Comments

After deriving the three equilibria, we find that the dictator appoints a successor only when social mobilization is very feasible and the dictator cares about his legacy. From the equilibrium where a successor is appointed, we further obtain the following hypotheses from computing the partial derivatives of $\Psi(C, g)$:

Hypothesis 1. The dictator is more willing to appoint a successor if his payoff from passing on legacy is higher: $\frac{\partial \Psi(C,g)}{\partial q} > 0.$

Hypothesis 2. The dictator is more willing to appoint a successor if the benefits after a successful social mobilization is high, which makes a social mobilization more feasible: $\frac{\partial \Psi(C,g)}{\partial B} > 0$.

Hypothesis 3. The dictator is more willing to appoint a successor if the cost of a failed social mobilization is lower, which makes a social mobilization more feasible: $\frac{\partial \Psi(C,g)}{\partial C} < 0.$

The result shows that the dictator needs motivation (e.g. legacy) to set up a successor. He does so only if he is sure that he has the ability to remove the successor via social mobilization. If social mobilization is infeasible, the incumbent will always acquiesce which makes it optimal for the successor to rebel and get the rent even before the dictator passes away. Moreover, in equilibrium the military competence of the successor n, and the military competence of the dictator m, do not affect the dictator's decision on whether to set up a successor.

4 Empirical model and data

In this section, we discuss the data and empirical strategy used to test the three hypotheses listed above. We start with our sample of dictators, and then explain our variables of interest, i.e. the measures for legacy, and the costs and benefits of social mobilization. Finally we show our empirical strategy. Table x shows the summary of descriptive statistics. Since our analysis is at the leader level, we take the mean of the time-varying variables over a leader's tenure.

4.1 Data

4.1.1 Predecessors and Successors

To study the successor's dilemma, we narrow our sample to dictators identified in Svolik (2013) whose tenure is above 10 years. The reason is that only leaders who have stayed in power long

enough would face the successor's dilemma. Others have already exited office before they need to consider the appointment of a successor.

In total, our sample covers 169 dictators from 102 authoritarian regimes over the period of 1875-2011. Using entry and exit information provided by Yu (2015) and Archigos 2.9 (Goemans et al., 2009),⁹ we know that on average the predecessors spent 21 years in office. While 112 dictators from our sample reached power regularly, the rest entered office via irregular means or foreign imposition. Moreover, 2/3 of the dictators left office due to regular means or natural death.

The designated successors of each predecessor is identified by using various sources, e.g. Political Handbook of the World (2009, 2013). We consider the succession a success if and only if the designated successor come into power after the exit of the predecessor. Since Yu (2015) and Archigos 2.9 includes all de facto rulers of a state, the succession is a success when the predecessor is covered in their datasets. In total, 74 successor were appointed by the 67 dictators while only 43 took over power.

4.1.2 Variables of interest

As listed in section 3.4, whether a dictator appoints a successor depends on 1) the dictator's motive for legacy, 2) the benefits of participating in a social mobilization, and 3) the costs of participating in a social mobilization. In this section, we discuss the measures for those determinants.

1. Measures for legacy

As suggested by Tullock (1974, 1987), a dictator's legacy concern is mainly about the following 2 issues: 1) whether he will be remembered afterwards, and 2) whether his ideology (policies or political beliefs) will be followed after his death. As a hidden motive, it is hard to observe and measure. Here we construct our original proxies for legacy (*Building* and *Road*) by finding whether the predecessor has buildings (e.g. airports, schools, statues and monuments etc), and roads (e.g. tunnels, parks, and other types of administrative areas) named after him.¹⁰ Since a building/road will exist for a long time and have its name mentioned frequently, predecessors who have buildings and roads named after them apparently care about being remembered after they leave office. Since buildings/roads can be named in memory of a certain predecessor, we make sure to only include buildings and roads that were named during a predecessor's tenure rather than after his tenure.

It is common for family members to carry on their ancestors' legacy. Thus, we create two additional measures for legacy: 1) number of wives (Wife) and 2) number of children (Kids). We collect information on these two measures from Encyclopedia Britannica, Wikipedia and government websites. On average, a dictator has 6 to 7 kids and 2 wives. Meanwhile, some dictators, e.g. the King of Sobhuza II from Swaziland, have dozens of wives and more than 100

 $^{^9\}mathrm{Yu}(2015)$ updates Archiogs 2.9 from 2004 to 2011.

¹⁰We gather the information from various sources, e.g. Encyclopedia Britannica, Wikipedia, and Google Earth.

children.

We use the information provided by Yu (2015) and Archigos 2.9 to generate the predecessor's tenure, *Tenure*. It is expected that leaders who (choose) stay in power longer to leave more legacy. Last but not least, a dummy for whether a dictator initiated a war (War) is created to capture those dictators who want to leave their legacy through war victories. The information is provided by Political Handbook of the World (2009, 2013).

2. Measures for feasibility of social mobilization

The feasibility of social mobilization depends on the benefits and costs of social mobilization. According to Acemoglu and Robinson (2006), the benefits of social mobilization include pecuniary benefits, such as transfers/redistribution from the elites, and ideological/theological benefits. As the latter cannot be measured, we focus on the potential measures for pecuniary benefits: 1) the mean of real GDP per capita in logs (WDI/Maddison, 2013), Mean(Ln(GDPpc)); and 2) the mean of total natural resources rents (% of GDP, WDI, 2013), Natural Resources. Mean(Ln(GDPpc)) is used because as the economy develops, the more the mass can gain from redistribution from the elites. Moreover, natural resources rents tend to be controlled by the elites, which indicates more redistributive benefits after the social mobilization.

The costs for social mobilization include 1)the mean of unemployment rate (% of total population) provided by WDI (2013), Mean(Unemployment); 2) the mean of years of schooling (ages above 15) taken from Barro and Lee (2010), Mean(Yrs of Schooling); 3) the mean of Polity2 score (PolityIV, 2014), Mean(Democracy); 4) the mean of the size of the winning coalition/the selectorate (Bueno de Mesquite and Smith, 201x), Mean(W) and Mean(S); 5) the mean of working-age share (ages 15-64 % of total, WDI 2013), Mean(WAS); 6) the average ratio of military over the total population (%, Databanks, 2010); and 7) the political stability level measured by the average number of mass movements provided by Databanks(2010).

It is clear that social mobilization costs are low when the unemployment rate is high, the population is young, and the military amounts to a large share of the population. When it comes to years of schooling, the impact is unclear. More educated leaders can face higher participation costs, but they are also more likely to participate in social movements due to the higher level of civicness (Acemoglu and Robinson, 2006). The same applies to the level of economic development. Although a more developed economy may imply more redistribution, a social mobilization in such a society can also be more destructive. Moreover, the cost for social mobilization could be low when the regime is facing frequent mass uprisings. However, it can also be high since a social mobilization would destroy the regime's stability even further to a point where the whole state collapse.

When it comes to the level of democracy, we expect a negative association between it and the likelihood to appoint a successor. As suggested by Persson and Tabilni (2009), a nation's historical experience with democracy contributes to a country's democratic capital, which promotes capital formation, economic development and democratic consolidation. When facing the same process to a more autocratic regime, regimes with a higher political score experience a higher drop in its democratic capital, and thus, a higher cost for social mobilization.

3. Regime types

As suggested by Ghandi (2008) and Svolik (2013), different types of dictatorships have different types of power base and means to survive. Hence, it is important to control for the differences in regime types. We follow Ghandi (2008) and divide regimes into 3 types: 1) civilian dictatorship, 2) military dictatorship, and 3) monarchies. The classification measure is taken from Cheibub et al.(2010) and updated by us to cover the period between 1930-1946. Here we create two dummy variables: a dummy variable for military dictatorship, *Military*, which equals 1 when the regime is a monarchy. In total, we have 32 observations from monarchies and 52 observations from military dictatorships.

4.2 Empirical model

Our model specification is as follows:

$$Appoint_i = \alpha_0 + c_t + \rho' \mathbf{Z} + \beta' \mathbf{X} + u_{ii}$$

where $Appoint_i$ is a dummy variable for whether leader *i* appointed a successor. **Z** is the vector of variables of interest while **X** is a vector of control variables. c_t represents the decades dummies when the predecessor started his reign, which accounts for the macro trends. Here we take the two dummies for regime types, , i.e. *Military* and *Monarchy*, as common controls.

We use Logit model as the regression method as our main estimator. In the section of robustness checks, OLS estimator and Probit estimator are used. Since most countries have only one dictator who stayed in power more than 10 years, there is little within-regime variation. Thus, country dummies are not included in our model. Moreover, since our analysis is at the leader level, all time-varying variables are averaged over a leader's tenure.

5 Main results

In this section, we show the main results of our study. We start with showing the impact of legacy on the predecessor's choice on whether to appoint a successor. Then, we test how costs and benefits of social mobilization influence the choice on appointment. Finally we pool these factors together and apply the general-to-specific approach.

5.1 Legacy

Using the Logit estimator, we test how dictator's legacy drive influences his choice of appointing a successor. The marginal effects of our proxies for legacy are reported in Table 2. Moreover, dummies for regime types, i.e. *Military* and *Monarchy*, and decade dummies are included throughout the table.

[Insert Table 2 about here]

In Column (1), we include the common controls, *Military* and *Monarchy*. As expected, monarchies tend to appoint successors while military dictatorships do not differ from civilian dictatorships. Then we further add legacies in physical forms, i.e. *Building* and *Road*, in Column (2) and (3). These variables take the value of 1 if a building or a road is named after the predecessor. The marginal effects for both are positive while only *Building* is significant at 1 percent level. When combining *Building* and *Road*, we get another proxy for legacy, *Legacy*, which is equal to 1 if one of *Building* or *Road* equals 1 and 0 otherwise. Its marginal effect is positive and significant at 5 percent level.

Additionally we test the impact of having a war (War) and having a long tenure (Tenure) in Column (5) and (6). Although the coefficients are positive, they are insignificant. The reason for *Tenure* to be insignificant could be that the choice of appointing a successor also influences a dictator's tenure.

While the number of wives do not influence a dictator's choice, having more children does increase the possibility of appointing a successor. To test whether this relationship is nonlinear, we further add the squared term of Kids in Column (9). The results suggest that after reaching a certain threshold, additional kids would reduce the dictator's tendency to appoint a successor. The reason could be that when a dictator has too many children, appointing a successor could trigger conflicts among his children. However, the coefficient for $Kids^2$ is insignificant.

In Column (10), we pool the legacy measures that are found to be significant. The results remain significant and support our hypothesis, i.e. the dictator is more willing to appoint a successor if he wants to pass on his legacy.

5.2 Feasibility of Social Mobilization

In this section, we test the impact of social mobilization costs and benefits on the appointment of successors. The results are reported in Table 3. Dummies for regime types, i.e. *Military* and *Monarchy*, and decade dummies are included throughout the table.

[Insert Table 3 about here]

In Column (1) and (2), measures for the economic development level are included. Both of them have positive signs but are insignificant. The reason could be that higher GDP per capita drives both the potential redistributive benefits and opportunity costs from social mobilization high. Moreover, the results in Column (3) and (4) show that neither the population's education level nor the unemployment rate matters for the dictator's decision on whether to appoint a successor. We further include 3 different measures for the level of democracy in Column (5)-(7). The results suggest that a higher democracy level reduce the tendency to appoint a successor. Furthermore, the results in Column (8) to (10) suggest that a dictator is more likely to appoint a successor if the nation has a younger population, a larger military, and is more stable. Column (10) shows that the costs of social mobilization is even higher in unstable regimes.

In Column (11), we pool all variables found to be significant from Column (1) and (10). Then we drop the most insignificant variable one by one until only significant variables are included. This gives us Column (11). When concerning the feasibility of social mobilization, the size of the military and the regime's democracy level seem to matter the most.

5.3 Pooled Model

Here we take the general to specific approach and include all significant variables found in the subsections above in Column (1).

[Insert Table 4 about here]

Then we dropped the least significant variables one by one until all remaining variables are significant at least at 10 percent level. Since the common controls, *Military* and *Monarchy*, are insignificant, they are dropped in Column (3).

Since it is possible that appointing a successor could influence the regime's political setting and economic performance, we redo the regression in Column (1) with variables that are taken one year before the dictator's tenure. In Column (4), Lagged(Polity2) and Lagged(Military) are significant at 5 percent level. After dropping the insignificant variables, we find Lagged(Polity2)still remains significant. As the coefficients have the same signs as found in Table 2 and Table 3, the results support our hypotheses.

6 Robustness checks

6.1 Different estimators

In this section, OLS estimator and Probit estimator are applied to the models specifications in Column (1)-(3) from Table 4. The results are reported in Table 5. While Column (1)-(3) show the average marginal effects generated by using Probit, Column (4)-(6) report the OLS estimates. Decade dummies are included throughout the table.

[Insert Table 5 about here]

The results confirm our former findings. Both legacy measures, i.e. *Building* and *Kids*, are positive and significant. Moreover, the determinants for the feasibility of social mobilization

(Mean(Polity2) and Mean(Military)) remain significant and have the expected sign. Although *Monarchy* turn insignificant when Probit is used, it is positive and turns significant when OLS is used. To sum up, our main results are robust to the use of estimators.

6.2 Different Dependent Variable

In our sample, 5 out of the 67 observations who appointed successor chose more than 1 successor. Therefore, we use an alternative dependent variable that measure the number of appointments (Nr. of Appointment) as the alternative dependent variable.

[Insert Table 6 about here]

In Table 6, we first apply Ordered Logit Estimator to the model specification of Column (1)-(3) in Table 4. Then we redo the regressions with the OLS estimator. The results are in line with our former findings. All the variables that are found to be significant remain significant and have the same signs. Thus, the mechanism that is driving the dictator to appoint a successor may be the same that drives the dictator to appoint more successors. Since the number of observations that appoint more than 1 successor is small, we cannot make a conclusion here.

7 Further studies

In previous sections, we have shown that both legacy motives and the determinants for social mobilization are relevant for the dictator's decision on whether to appoint a successor. In this section, we demonstrate the validity of our theoretical model. First we test whether the dictator's personal characteristics matter for the appointment decision as his personal characteristics are assumed to be irrelevant in the model. Then we test whether our model's implications in predicting succession success are valid.

7.1 Dictators' personal characteristics

In this section, we demonstrate the validity of the setup of our theoretical model. In our model, we follow Bueno de Mesquita et al. (2003) and assume homogeneity among leaders. This assumption implies that the dictator's competence does not matter for his decision on appointing a successor. However, it is possible that leaders differ in their economic competence and military competence (Yu and Jong-A-Pin, 2014), which influence their decision on whether to appoint a successor.

[Insert Table 7 about here]

The results are shown in Table 7. The information on leaders' personal characteristics are obtained from Besley and Reynal-Querol (2013), and Yu (2015).¹¹

In Column (1), we add a dummy variable, Graduate, which equals 1 if the dictator has a master degree or above, to the model specification of Column (2) in Table 4. In order to control for the average education level of the population, we further include $Mean(Yrs \ of \ Schooling)$ in Column (2).

Column (3) includes a dummy variable for foreign educated leaders (*Foreign Educated*) while Column (4) includes a numerical variable for leaders' official military rank obtained before office (*Military Rank*). Following Yu(2015), leaders' official military rank takes a value from 0 (Civilian), 1 (Low-ranked officer with NATO ranks lower than OF-4), 2(Middle-ranked officer with NATO ranks between OF-5 and OF-8) and 3 (High-ranked officer with NATO ranks above OF-8, which are generals or commander in chief). Furthermore, we included a dummy for whether the dictator was a coup leader (*Coupleader*) and a dummy for whether the dictator worked as a lawyer (*Lawyer*).

7.2 Succession success

In this section, we further test the validity of our theoretical model by showing some additional implications that can be derived from our model. In our model, we assume that successors differ in their patience level (β).. From the model, we know that impatient successors would try to ouster the predecessor and lead to succession failures. Since we cannot directly observe the patience level of successors, we use the age of the successors and how long the appointed successor has waited as proxies for the patience level. When aged successors appointed, their mortality rates are higher, which implies that they cannot wait much longer to gain the rents in the future. We generate the measure, *Age when appointed*, from Yu (2015, which updates Archigos 2.9 to 2011). Moreover, we construct an original variable that measures how long the successor has been appointed, i.e. *Years of appointment*.¹²

Moreover our model shows that when a successor is appointed, which is the case of the third equilibrium of our model, the dictator will remove the successor when the successor's action is too aggressive. Thus, aggressive behaviors of the successor would lead to the failed succession. Here we construct a dummy on whether the successor was aggressively engaged in power grabbing during the pre-mortem struggle, i.e. *Aggressive B4succession*.

The model specification is as follows:

$$SuccessionSuc_i = \alpha_0 + c_t + \rho' \mathbf{Z} + u_{it}$$

 $^{^{11}}Coupleader$ is taken from Besley and Reynal-Querol (2013) while the rest of the variables on leaders' personal characteristics are taken from Yu (2015).

¹²We gathered information on the designation dates from Encyclopedia Britannica and Wikipedia. We take the end date of the predecessor's tenure as the end date of this waiting period.

where $SuccessionSuc_i$ is a dummy variable for whether leader *i* successfully appointed a successor(see below for description). c_t are the decade dummies used in previous tables. Z include the proxies for the successors' patience level and aggressive behaviors.

The dependent variable of succession success is defined as whether the appointed successor is included in Archigos 2.9 as a de facto ruler. From the 169 dictators included in our sample, 60 of them appointed a successor, out of which 40 had a successful succession. We show the empirical results in Table 8.

[Insert Table 8 about here]

In Column (1)-(3), Logit estimator is used. Although we do not find support that the patience level of the successor increases the success rate of a succession, we find that the successor who are aggressive tend to have a failed succession. The insignificance of the patience level may be due to the fact that successors could be selected based on their patience level. In Column (4)-(6), we redo the analyses with Probit while we use the OLS estimator in Column (7)-(9). The results confirm the impact of successors' aggressive behavior on succession success.

8 Conclusion

Our paper studies the successor dilemma where the ruling dictator appoints a successor premortem in the hope that he will successfully take over power after his death and carry on his legacy. However, not all appointed successors are patient enough to wait for the predecessor to die. Most of them will take opportunistic behaviors to grab power from the dictator pre-mortem, which turns the appointed successors the biggest threat to the appointee.

In our theoretical model, we fully address the issue and find three possible equilibria. They are 1) the infeasible social mobilization equilibrium where social mobilization is infeasible and the ruling dictator never appoints a successor; 2) the acquiescence equilibrium where although social mobilization is feasible but the ruling dictator never appoints a successor because the successor can ouster him in the pre-mortem struggle; and last but not least, 3) the appointment equilibrium where the incumbent appoints a successor when the incumbent can ouster him and is not threatened by him.

The model explains why some dictators appoint successor while others do not. Although most dictators do not appoint successors, they would do so when they are pursuing grand legacy after their death and are able to remove dictators by mobilization the mass. After showing the motive (i.e. legacy) and the necessary condition (i.e. the feasibility of social mobilization), we further test these theoretically implications empirically.

Using a sample of 169 dictators, we first test whether the dictators with legacy motives are more likely to appointment a successor. By using an proxy for legacy created by us, we demonstrate that leaders with legacy motives are more likely to appoint a successor. Then we test whether the feasibility of social mobilization matters for the appointment of a successor. The results confirm our hypotheses that in regimes where social mobilization is possible, dictators are more likely to appoint a successor. Our findings are robust to alternative estimators, alternative dependent variables, and remain unchanged after controlling for different types of dictatorships. As expected, monarchies tend to appoint successors to ensure a successful succession.

To show the validity of our theoretical model, we test whether the dictators' personal characteristics matter for the appointment decision, and then whether patience and aggressive powergrabbing behaviors are relevant for having a succession success. Our empirical results confirm that the dictators' personal characteristics do not matter and aggressive power-grabbing behaviors lead to succession failures as they can be detected by the incumbents.

Although our study has shown some interesting results, it could be extended both empirically and theoretically. Empirically we can tend the sample to include dictators have stayed in power for less than 10 year. Currently our analyses are bounded by the sample size. For instance, when we pooled all our variables altogether, our sample size shrinks to around 40 observations.

Theoretically, our model can be extended in the following ways: 1) set a boundary on the successor's power-grabbing behavior in the pre-mortem struggle, and 2) introduce heterogeneity among successors. The first possible extension could be more realistic than our current assumption where the successor can build up his power base pre-mortem as large as he pleases. Meanwhile, the second possible extension could shed lights on how dictators appoint successors, such as whether they value loyalty more than competence levels.

As mentioned before, our study contribute to a largely ignored field in authoritarian regimes. Most of the studies focus either on the conflicts between the dictator and his allies (elites) or the conflicts between the elites (including the dictator) and the mass. We are looking at the potential conflicts between dictator and the elites where the dictator is armed with the mass's support. Moreover, using the mass to oppose the elites is not only done in authoritarian regimes. There are such cases in democracies as well. However, no one has systematically studies about it. Therefore, further studies are needed in this area.

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9 Appendix

SYMBOL	DEFINITIONS
	PLAYERS
D	the incumbent dictator
S	the successor
Z	the citizens
	EXOGENOUS VARIABLES
$\sigma \in [0,1]$	the incumbent dictator's advantage
$R \in [0, +\infty]$	the rent from holding current office
$g \in [0, +\infty]$	the payoff for the dictator from passing on his legacy
$\beta \in [0,1]$	the discount factor
$n \in [0, 1]$	the military competence of the successor
В	the benefit of joining social moblization if the dictator wins
C	the cost of joining social mobilization if the dictator loses
m	the dictator's military competence
	ENDOGENOUS VARIABLES
θ	the size of the power base the successor chooses to build
ϕ	the fraction of citizens who follow the dictator
γ_S	the probability the successor wins the contest
γ_D	the probability the dicator wins the contest
α	the dictator's choice on whether to oust the successor
λ	the dictator's choice on whether to appoint a successor
ρ	the successor's choices on whether to rebel
π	the probability the successor wins the Post-mortem succession struggle
η	the feasibility of social mobilization

Table 1: Definition of Symbols

Monarchy 0.52	~ ~	j)	(\mathbf{n})	(\mathbf{F})	(a)	(\mathbf{n})	(\cdot)	(0)	(e)	$(n\tau)$
	0.52^{***}	0.47^{***}	0.51^{***}	0.50^{***}	0.52^{***}	0.55^{***}	0.56^{***}	0.47^{***}	0.47^{***}	0.42^{***}
(0.0	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.12)	(0.00)	(0.00)	(0.10)	(0.10)
Military -0.	-0.00	0.02	-0.00	0.01	-0.01	0.00	0.01	0.01	0.01	0.04
(0.0	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)	(60.0)	(0.08)	(0.08)	(0.08)	(0.02)
Building		0.23^{***}								0.21^{***}
		(0.06)								(0.06)
Road			0.03							
			(0.07)							
Legacy				0.20^{***}						
				(0.01)						
War					0.07					
					(0.08)					
Tenure						0.00				
						(0.00)				
Wife						~	0.00			
							(0.01)			
Kids								0.02^{*}	0.02^{*}	0.02^{**}
								(0.01)	(0.01)	(0.01)
$Kids^2$									-0.00	
									(0.00)	
Observations 16	164	164	164	164	164	140	153	147	147	147
Pseudo R2 0.1	0.18	0.24	0.18	0.21	0.19	0.16	0.21	0.23	0.23	0.28

Table 2: Legacy and the appointment of a successor

Dep Var: Appoint	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)	(13)
Monarchy	0.45^{***}	0.46^{***}	0.43^{***}	0.54^{***}	0.56^{***}	0.49^{***}	0.47^{***}	0.55^{***}	0.48^{***}	0.48^{***}	0.51^{***}	0.43^{***}	0.44^{***}
	(0.00)	(0.11)	(0.00)	(0.08)	(0.00)	(0.10)	(0.11)	(0.00)	(0.08)	(0.12)	(0.09)	(0.14)	(0.14)
Military	0.03	-0.01	-0.07	0.08	0.07	-0.01	-0.03	0.05	0.03	-0.04	0.03	-0.06	-0.07
	(0.00)	(0.00)	(0.00)	(0.11)	(0.10)	(0.08)	(0.00)	(0.00)	(0.08)	(0.00)	(0.08)	(0.10)	(0.00)
Mean(LnGDPpc)	0.07												
(Maddison, 2013)	(0.04)												
Mean(LnGDPpc)		0.03											
(WDI, 2013)		(0.03)											
Mean(Natural Resources)			0.00 (00.0)										
Mean(Unemployment)			·	0.00 (0.01)									
Mean(Years of schooling)					0.00 (0.02)								
Mean(Polity2)						-0.03***						-0.03***	-0.03***
						(0.01)						(0.01)	(0.01)
Mean(W)							-0.28						
							(0.20)						
$\operatorname{Mean}(S)$								0.05 (0.16)					
$\mathrm{Mean}(\mathrm{WAS})$									0.01**			-0.00	
Mean(Military)									(10.0)	0.00***		0.00	0.00***
										(0.00)		(0.00)	(0.00)
Mean(Mass)											-0.17*(0.10)		
Observations	142	128	122	73	128	157	156	160	150	119	159	106	117
Pseudo R2	0.18	0.23	0.22	0.32	0.19	0.23	0.20	0.19	0.22	0.18	0.20	0.22	0.22

Dep Var: Appoint	(1)	(2)	(3)	(4)	(5)
Monarchy	0.26	0.27			0.51**
	(0.17)	(0.17)			(0.20)
Military	-0.04	-0.06		0.21	0.08
	(0.09)	(0.09)		(0.14)	(0.07)
Building	0.21^{***}	0.23***	0.26^{***}	0.46^{***}	0.24^{***}
	(0.08)	(0.07)	(0.07)	(0.06)	(0.06)
Kids	0.02	0.02	0.02**	0.03	0.03***
	(0.01)	(0.01)	(0.01)	(0.03)	(0.01)
Mean(Polity2)	-0.02**	-0.03***	-0.03***		
	(0.01)	(0.01)	(0.01)		
Mean(WAS)	-0.01				
	(0.01)				
Mean(Military)	0.00	0.00**	0.00**		
	(0.00)	(0.00)	(0.00)		
Mean(Mass)	-0.11				
	(0.12)				
Lagged(Polity2)				-0.02**	-0.01**
				(0.01)	(0.01)
Lagged(WAS)				0.01	
				(0.01)	
Lagged (Military)				0.00**	
				(0.00)	
Lagged(Mass)				-0.04	
				(0.04)	
Observations	98	106	106	41	106
Pseudo R2	0.26	0.27	0.24	0.52	0.43
	•	. 1	*** 0.01	**	* 0.

Table 4: General to specific approach

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1 Average marginal effects are reported. Decade dummies are included.

Dep Var: Appointment	(1)	(2)	(3)	(4)	(5)	(6)
Estimator	Probit	Probit	Probit	OLS	OLS	OLS
Monarchy	0.22	0.23		0.26^{*}	0.26*	
	(0.14)	(0.15)		(0.15)	(0.14)	
Military	-0.05	-0.07		-0.04	-0.06	
	(0.10)	(0.09)		(0.11)	(0.10)	
Building	0.20**	0.22***	0.26***	0.26^{**}	0.28***	0.31***
	(0.08)	(0.07)	(0.07)	(0.10)	(0.10)	(0.09)
Kids	0.02^{*}	0.02	0.02**	0.01^{**}	0.01^{**}	0.02***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Mean(Polity2)	-0.02**	-0.03***	-0.03***	-0.02**	-0.03***	-0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Mean(WAS)	-0.01			-0.01		
	(0.01)			(0.01)		
Mean(Military)	0.00	0.00**	0.00**	0.00	0.00**	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Mean(Mass)	-0.13			-0.12		
	(0.12)			(0.11)		
Constant				0.52	-0.53***	-0.64***
				(0.58)	(0.15)	(0.12)
Observations	98	106	106	101	109	109
R-squared				0.33	0.34	0.30
Pseudo R2	0.26	0.27	0.24			
Adj. R2				0.23	0.26	0.24

Table 5: Robustness Checks: Probit and OLS Estimators

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1Average marginal effects are reported in Column (1)-(3). Decade dummies are included.

Dep Var: Nr. of Appointments	(1)	(2)	(3)	(4)	(5)	(6)
Estimator	Ord. Logit	Ord. Logit	Ord. Logit	OLS	OLS	OLS
Royal	1.32*	1.36^{*}		0.35^{*}	0.34*	
	(0.77)	(0.78)		(0.19)	(0.18)	
Military	-0.34	-0.41		-0.07	-0.08	
	(0.52)	(0.50)		(0.11)	(0.10)	
Building	1.20**	1.26^{***}	1.38^{***}	0.26^{**}	0.27***	0.32^{***}
	(0.50)	(0.47)	(0.45)	(0.11)	(0.10)	(0.10)
Kids	0.11^{***}	0.11^{***}	0.13^{***}	0.03***	0.03***	0.04***
	(0.03)	(0.03)	(0.03)	(0.01)	(0.01)	(0.01)
Mean(Polity2)	-0.12	-0.13*	-0.14**	-0.02	-0.02*	-0.02*
	(0.08)	(0.07)	(0.07)	(0.01)	(0.01)	(0.01)
Mean(WAS)	-0.06			-0.01		
	(0.05)			(0.01)		
Mean(Military)	0.01	0.01**	0.01**	0.00	0.00^{*}	0.00^{*}
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Mean(Mass)	-0.48			-0.10		
	(0.78)			(0.14)		
Constant cut1	-0.94	2.26^{**}	2.48**			
	(2.72)	(1.06)	(1.05)			
Constant cut2	3.03	6.28^{***}	6.25^{***}			
	(2.71)	(1.48)	(1.48)			
Constant cut3	5.00^{*}	8.21***	8.13***			
	(2.73)	(1.83)	(1.74)			
Constant				1.07	-0.59***	-0.74***
				(0.70)	(0.16)	(0.14)
Observations	101	109	109	101	109	109
R-squared				0.38	0.37	0.32
Pseudo R2	0.25	0.25	0.22			
Adj. R2				0.28	0.29	0.26

Table 6: Robustness Checks: Different Dependent Variable

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Decade dummies are included.

Dep Var: Appointment	(1)	(2)	(3)	(4)	(5)	(6)
Monarchy	0.27	0.42**	0.27	0.27	0.27	0.27
	(0.18)	(0.18)	(0.17)	(0.18)	(0.17)	(0.17)
Military	-0.01	0.06	-0.06	0.03	-0.08	-0.06
	(0.10)	(0.10)	(0.09)	(0.20)	(0.10)	(0.09)
Building	0.22***	0.23***	0.23***	0.23***	0.23***	0.23***
	(0.07)	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)
Kids	0.01	0.01	0.02	0.02	0.01	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Mean(Polity2)	-0.03***	-0.03***	-0.03***	-0.03***	-0.03***	-0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Mean(Military)	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Graduate	0.17	0.20				
	(0.11)	(0.12)				
Mean(Yrs of Schooling)		-0.02				
		(0.03)				
Foreign Educated			0.02			
			(0.08)			
Military Rank				-0.04		
				(0.08)		
Coupleader					0.04	
					(0.11)	
Lawyer						-0.01
						(0.14)
Observations	102	86	106	106	106	106
Pseudo R2	0.28	0.33	0.28	0.28	0.28	0.27

Table 7: Dictator's Personal Characteristics

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Average marginal effects are reported. Decade dummies are included.

		Table 8	Table 8: Succession success	sion succ	SSS				
Dep Var: Succession Success Estimator	(1) Logit	(2) Logit	(3) Logit	(4) Probit	(4) (5) Probit Probit	(6) Probit	(7)	(8) OLS	(6)
Age when appointed	0.00))		0.00 (0.00)			0.00 (0.00)		
Years of appointment	~	-0.00		~	-0.00		~	-0.00	
Aggression B4succession		(+0.0)	-0.32^{**} (0.16)			-0.33^{**} (0.16)			-0.41^{*} (0.21)
Observations	59	58	59	58	58	59	58	58	59
R-squared							0.11	0.10	0.21
Pseudo R2	0.09	0.09	0.17	0.09	0.09	0.17			
Adj. K2					-	-	0.00	000	0.10
Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$ Average marginal effects are reported. Decade dummies are included.	ıdard erre ıarginal e	ors in pa ffects are	rentheses e reportec	. *** p< l. Decade	0.01, ** I e dummie	0<0.05, * s are inclu	p<0.1 ided.		

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