**The Power of “Big Brothers”:**

**Political leaders and regime changes in authoritarian states.**

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**Abstract**

待写。

1. **Introduction**

Why do some authoritarian regimes consolidate but others liberalize? Comparative scholars have provided various answers to the question of authoritarian resilience, ranging from political institutions to economic performance and from state capacity to political culture. Surprisingly, few have investigated the role of political leaders in large-N studies. This is a regretable missing piece since, for authoritarian regimes, the dictators are often “elephants in the room.” The collapse of authoritarianism in the Soviet Union in 1989 probably had much to do with stagnant economy or ossified political institutions, but “the Gorbachev factor” is undeniably striking (Brown, 1997). If Chernenko had lived ten years longer, perhaps the year 1989 would not leave such a special mark on history. There are probably many reasons why China escaped the democratization wave in 1989, but Deng’s decision to crack down on the student movement is the key turning point. If Deng had passed away ten years earlier, the fate of China would be anyone’s speculation.

This paper intends to fill in the gap. To be specific, we intend to investigate three sets of questions within the 1946-2020 timeframe. First, do autocratic leaders matter for regime changes given all the structural and institutional constaints they face? If so, how much do they matter? Second, in which direction do they matter? Do they matter equally for democratic changes and autocratic deepening? Third, in which political and economic conditions do they matter most?

We adopt an innovative research method “Randomization Inference for Leader Effects,” developed by Berry and Fowler (Berry/Fowler, 2021), to analyze our research questions. The lack of large-N studies on these questions is probably related to an obvious methodological hurdle: it is hard to identify leader characteristics that matter for regime dynamcis, let alone measuring them in a reliable way. Opinion surveys detecting public values is unavailabe for national leaders. Behavioral records such as negotiation processes, meeting archives and factiou struggles are particularly hard to find in autocracies given its nature of secrecy (Barros, 2016). The method of Randomization Inference, however, bypasses the methodological necessity of measuring leader characteristics. By comparing r2 of regressions on real leader data to those on randomly permuted leader data within the same unit, observing the probability of deviance between the real r2 and r2 statistics from repeated simulations, it extracts the leader effects when holding other variables constant. In other words, it assesses the leader effects while staying agnostic about the leaders. Compared to some conventional regression methods, it also has some other advantages such as maintaining decent sample size, reducing serial correlation and mitigating the mixing of leader effects with transition effects, which we will elaborate later.

The implementation of Randomization Inference leads to several major findings. First, the autocratic leaders do matter for regime changes, and the general effect size is very significant. According to our estimation….(待写)… In contrast, democratic leaders do not make much difference on regime dynamics, suggesting that democracies do effectively bind their leaders through checks and balances. Second, the autocrats change regimes both in democratic and authoritarian direction, and the effect sizes are similar, suggesting that the “big brothers” do show great variations even when facing the same time trend and standing at similar crossroads. Third, different conditions do amplify or shrink the leader effects. While economic level seem not affecting the leader effects, more equal, more open autocracies, as well as military/personalistic type of autocracies, seem associated with more leader effects, suggesting that economic inequality, deep authoritarianism, party-state and monarchy institutions “constrain” the dictators in the sense they will have either less incentives or less capacity to make regime changes. (这一段内容都会根据实际发行有所调整)

Our study contributes to the understanding of authoritarian regimes in two important ways. First, we “bring the leaders back in” to comprehend authoritarian regime dynamics. Previous comparative literature on regime dynamics have largely worked on structural, institutional and cultural mechanism, leaving the role of political leaders understudied. However, scholars have long argued that political transition is “not only about conditions, but also about actions” (Rustow…), a wisdom largely lost in comparative studies. By addressing this perspective deficit, we bridge the enduring gap between “conditionist” and “agency” perspectives in understanding regime changes.

Second, our findings enrich substantive understanding of leaders’ role in regime changes. The weighty leader effects we discover expand the existing knowledge, which signifies little regime change after leaders’ death. By broadening horizon from leader-death triggered turnovers to all leader turnovers, we reach a different conclusion. On the other hand, our specification of conditions that amplify or shrink leader effects also modifies views from some narrative-based case studies, in which autocrats seem able to single-handedly engineer political transitions. In addition, our discoveries that leaders equally matter for democratic changes and authoritarian deepening also highlight leaders as a genenuie variable rather than a mechanic reflector of “objective” rationalities or strength.

1. **Literature review**

Comparative scholars have developed various perspectives to explain why autocracies consolidate or democratize. Economic perspectives are ones of the most prominent ones. Many argue that good economic performance, while a blessing for democracies, also sustains autocracies (Przeworski et al., 2000; Djuve, 2019). Economic inequality, on the other hand, prompts dictators to consolidate authoritarianism to fend off redistributive pressure (Boix, 2003), or create regime swings between authoritarianism and democratization (Acemoglu/Robinson, 2001). The culturalists hold that political institutions gravitate towards social demand for democracy, thus democratic level is parimarily a function of mainstream political values (Inglehart/Wetzel, 2005; Brunkert, 2019). In addition, some emphasize international dynamics of change: liberal hegemony sets stage for waves of democratization, and autocratic hegemony in the opposite direction (Boix, 2011; Kagan, 2013).

One breakthrough of authoritarian studies in the 21st century is the highlight of political institutions. Many argue that political institutions, such as legislatures, parties and elections, facilitate autocratic consolidation as apparatuses of cooptation and power-sharing (Ghandi/Prezeworski, 2007; Boix/Svolik, foundation, 2013), although some argue that strong institutions could also backfire (Wright, 2012; Knutsen, 2017). Others examine how types of dictatorship affect its sustainability. Geddes found that military dictatorship is most susceptible to democratization wheras personalist dictatorship is least so (Geddes et al., 2014). Another institutionalist school emphasizes the importance of “institutional consistency,” contending that deep authoritarianism or democracies tend to be stable, whereas mixed regimes are prone to changes (Gates, 2006; Brownlee, 2009).

Among such rich literature, the political leadership perspective is strangely scarce except in cases studies (Kuomintang, 1997; Spain: democracy regained, Arango, 2019). Scholars have cautioned against over-deterministic view on regime evolution (Rustow, 1970; O’Donnell and Schimitter, 1986; Higley, 2006), but such insights seem rarely followed in large-N studies. One school of scholarship does highlight the role of political leaders in steering regime changes, democratization in particular. It emphasizes the key role of autocrats in conceding power or even guiding democratization when they perceive little risk. According to this top-down transition literature, when the autocrats are strong enough to negotiate a generous exit or even thrive in the new set rule of game, they often preemptively lead such changes to secure a driving seat in the process. (Albertus, 2018; Slater/Wong, 2013; Riedl, “authoritarian led”, 2020).

While enriching our understanding of regime changes, this school’s view still tends to be over-deterministic in the sense that the leaders brought back in are often faceless actors whose preferences are fixed by their structural positions or institutional strength. Their values, personalities, experiences or competence seem playing no role in their choices. To put it bluntly, they are agents without agency. The problem with this view is that both interests and strength are self-perceived, and leaders’ personal traits can heavily mediate their perceptin of reality, if “reality” exists at all. Standing in 1985, we have little reason to judge that Chiang Ching-Kuo held more political strength in Taiwan than Deng in mainland China, and in retrospect, it is hard to say Gorbachev had more political strength than Brezhnev, but Chiang Ching-Kuo and Gorbachev made the “leap of faith,” probably due more to their personal characters than to their institutional positions. If over-confidence and over-prudence are “mistakes” that prompt regime changes (Triesman, 2020), such “mistakes” are precisely leader effects inviting examination.

There are scanty efforts to link leader turnovers to regime changes, but they tend to find rather light leader effects. Kendall-Taylor and Frantz (Taylor/Frantz, 2016) found that regime tends to stay intact after autocrats’ death. “On average, there is no meaningful rise in countries’ polity scores in the years following the deaths of rules.” (die, p.165). Hummel (Hummel, 2020) inquired the causal relationship between leadership turnover and authoritarian resilience, also discovering that “authoritarian regimes are remarkably resilient in the aftermath of leader death.” (p.981). She attributed such stability to the premptive actions by the regime insiders to prevent political threat from regime outsiders.

By focusing on leader-death triggered turnovers, however, these studies lead to partial results. While this choice of focus is methodologically understandable given the clear measurability of death and its exogeniety to regime change, this approach can also potentially bias findings towards the conservative side if our interests are the overall leader effects on regime dynamics. Indeed, not all autocrats have the luxury of dying in power. The capacity of staying in power till death by itself is an indication of extraordinary authoritarian strength. Such leaders tend to designate loyalists as successors, as well as leaving a legacy of strong institutions, so it is more likely that leader turnovers around leaders’ deaths stir little water, as recognized by Kendall-Taylor and Frantz themselves. If our interests are “leader effects” in general, the natural-deaths turnover approach might be inadequate.

1. **Theory**

**Why autocratic leaders matter**

While dictators are often larger than life figures in autocracies, it is not necessarily clear that they would make a difference on regime changes. They might lack the incentive to change, as demonstrated by King Jong-un or Bashar al-Assad after taking over power from their fathers, since the status quo might represent their best interests. Even if they are determined to make changes, they can be structurally, culturally or socially constrained, which may manifest in the leader’s inability to form a reform coalition with other elites or civil society. For example, Venezuela President Chavez sought to abolish presidential term limits in 2007 in order to indefinitely run for president, but the proposal was defeated in national referendum.[[1]](#footnote-1) Erdogan tried to impose a twitter ban in Turkey in 2014, but the ban was lifted after a series of legal challenges.[[2]](#footnote-2) Making political changes is not easy, even for strongman like Chavez and Erdogan. The inertness of autocracies is demonstrated by the regime stability of some “star autocrats:” Franco was in power for nearly four decades, with Spian’s democratic level barely changing at all; Mubarak kept his regime static for about 30 years in Egypt; So was Suharto in Indonesia. Sometimes autocracies do change in forms, but not necessarily in levels: when Khomeini took over power from Pahlavi in the 1979 revolution, a traditional monarchy was transformed into a semi-theocratic regime, but the democratic level of Iran did not change much.

Nonetheless, we contend in this study that political leaders play a key role in driving regime changes in autocracies. This is based on two observations: the distinctive individualities of leaders, and the predominant power they are endowed with. Leaders, like everyone else, have different personalities, visions, experiences, levels of intelligence, compentence and grit, which can lead to different choices even when falling into similar equations of structural or institutional factors. The federatlists and anti-federalists largely came from the same classes and occupied similar politial positions after American independence, but different values and experiences shaped different political factions. Dubcek and Husak were both poliburo members of the Czechosloviakia Communist party, but they took different sides in the Prague Spring of 1968. The same can be said about Zhao Ziyang versus Li Peng, two top leaders of China who parted in the midst of the 1989 student movement. Mandela and Mugabe fought against white supremacy both as national heroes of their countries, but once in power, one deepened democracy in South Africa, the other consolidated autocracy in Zimbabwe. Leaders are variables, not robotic reflectors of objectively defined interests and strength.

As importantly, what makes such individualities particularly matter in autocracies is the commanding power autocrats possess. Democratic leaders, presumably as colorful as autocrats as individuals, are embedded in a complicated system of checks and balances, finding little room to swing regimes according to their personal visions. But autocrats are much freer to imprint their personal preferences into political system. While Kim Jong-un willfully engaged in brinksmanship with numerous missile tests, his counterpart in South Korea, Park Geun-hye, was impeached and sentenced to 24 years in prison for influence peddling scandals. The authoritarian Maduro could survive a man-made economic disaster that resulted in nearly 6 million refugees from Venezuala,[[3]](#footnote-3) but the democratic leader of Brazil, President Rouseff, was removed from office for manipulating government accounts to cover a budget deficit. The Biden administration struggled with implementing a mask mandate in the United States, but the Chinese government was able to completely shut down city after city for months. To put it straightforward, the dictators do often dictate. Scholars have shown that such dictatorial power significantly affects economic growth and international conflicts (Olken/Jones, 2005; Pappaiouannou, 2015; Fuhrmann/Horowitz, 2015), and it is plausible to hypothesize that it will also impact regime dynamics.

**Descriptive observations**

Indeed, the probability of regime changes with leader turnovers in demcracies vs. autocracies provides us a preview of such autocratic discretion. Figure 1 depicts relative probability of regime changes during 1946-2020 in democracies (panel 1) and autocracies (panel 2), respectively, in three different situations.[[4]](#footnote-4) First is in all autocratic/democratic country-years, second in 5 years after leaders’ natural deaths in power, and third in 5 years after any leader turnover.[[5]](#footnote-5) We illustrate the variances with two indicators taken from the Episodes of Regime Transtions (……): onsets of democratization episode and onsets of autocratization episode,[[6]](#footnote-6) and the leader turnover information is taken from the Archigos dataset (Goemans,…).[[7]](#footnote-7)

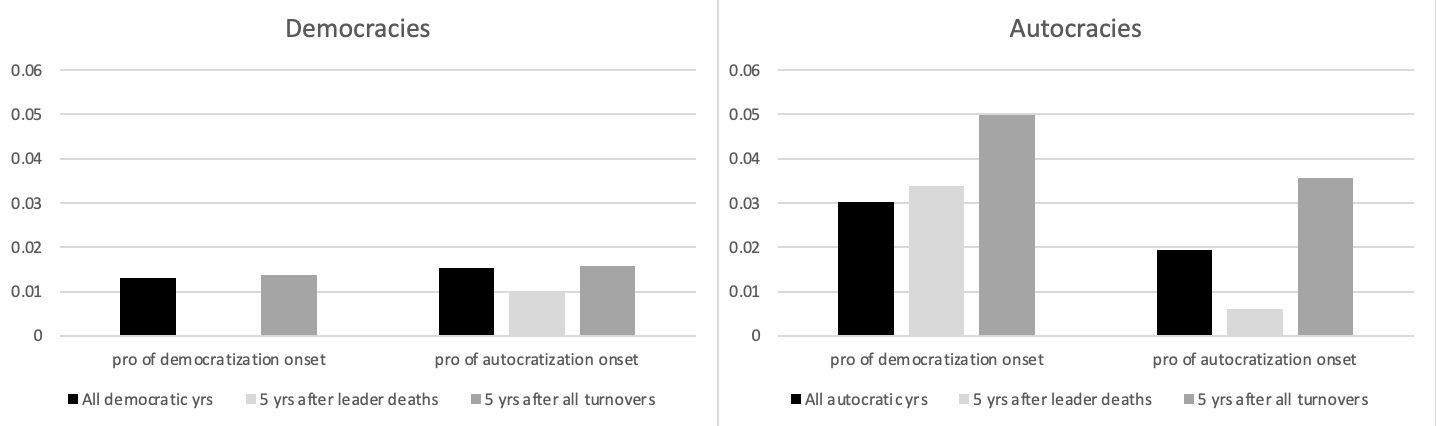


Figure 1. Relative probability of regime changes in three scenarios (1946-2020)

A clear message emerging from Figure 1 is that democratic regimes are not only more stable, but also, as we hypothesized, do not change much after leader turnovers. The probability of beginning a democratization or autocratization episode is very similar in “normal” years to post-turnover years. To be precise, in 5 years after any type of leader turnovers, the probability of starting a new round of democratization (democratic deepening in this context) only increases 0.07 percent, and 0.06 percent for autocratization onsets. This probability even drops if turnovers are triggered by leaders’ deaths. Indeed, there is no observation of democractic deepening onset in democracies after leaders’ deaths. However, considering that we only observe 19 leader natural deaths in office in democracies beteween 1946 and 2020, we should be cautious to draw any general conclusions.[[8]](#footnote-8)

The situation with autocracies, however, is different. As displayed in the figure, regimes change more frequently in authoritarianism in both positive and negative directions. The longevity of stablized dictatorship under certain famous autocrats such as Franco or Suharto might not reflect the “norm” of dictatorship. However, echoing what Taylor and Hummel found in their studies, after leader-natural-death triggered turnovers, the probability of regime change onsets in 5 years does not significantly rise up: it increases only 0.4 percent in the direction of democratization, and even drops 1.3 percent in the direction of autocratization.[[9]](#footnote-9)

But if we look beyond leaders’ exit by death, the picture changes. After leader turnovers in autocracies disregarding types of exit, the probability of onsets of democratization in 5 years increased from 3 percent to 5 percent and that of autocratization from 1.9 percent to 3.6 percent. The 1-2 percentage rise might not seem enormous, but given the base probability is only 3 percent and 1.9 percent respectively, the rise is thus 67 percent and 89 percent from the baseline. The message is thus clear and solid: leader turnovers in autocracies are significantly correlated to regime changes in both positive and negative directions.[[10]](#footnote-10)

It is certainly possible that the increased reimge changes in autocracies shown in Figure 1 are driven by factors other than leader turnovers, and such factors result in both regime changes and leader turnovers. We will address such endogeneity issue more rigorously later, but a few case observations at this stage might help grasp the correlation between regimes changes, leader turnovers and “other factors” in a tangible way.

Figure 2 illustrate such relationship with two cases: Taiwan and Russia. In the figure, we justapose the trajectory of regime changes with that of GDP per capita (from the Maddison project) as well as of party institutionalization level (from the V-Dem dataset), interpersed with leadership turnovers. We design the figure in this way to highlight the correlation between several predictors of regimes changes (economic development, institutionalization as well as leader turnovers) and regime changes themselves.[[11]](#footnote-11) As shown by the Figure, regime changes tend to be characterized by a sense of “suddenness,” which often takes place following leader turnovers, whereas economic development or party institutionalization either does not demonstrate such dramaticness or their changes tend to also happen *with* but not precede regime changes.

Taking Taiwan as an example, the uptick of democratic level took place during the Chiang Ching-Kuo era and then dramatically rose up during the Lee Teng-Hui era, but economic growth during these two periods of time did not diverge from the time before or after. The level of political party institutionalization had been largely stable as well. The Soviet-Russian case is somewhat different. Its democratic level experienced a visible rise during the Gorbachev era, and then a surge under Yeltsin, followed by a steady decline during Putin years. While economy and party institutionalizatin also suffered a significant decline during the Gorbachev and Yeltsin years, a closer look indicates that such economic and institutional changes did not precede regime changes. They in fact began *after* leader turnover and then unfolded simultaneously with regime changes, suggesting that they might be, along with regime changes, a reflection of the domino effect of leader turnovers.

图示, 工程绘图

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Figure 2. Political and economic conditions, leader turnovers and regime changes in Taiwan and Russia (1946-2020).

**How autocratic leaders matter**

Regarding how authoritarian leaders affect regime changes, there can be various mechanisms, among which we highlight three. First is certainly the deliberate efforts of the leaders to push for changes, which can be driven by rationalities, or values, or the combination of the two. On the side of democratization, one example is the coordinated efforts of King Carlos I and the Prime Minister Suarez in leading Spain out of dictatorship after Franco’s death. There was no imminent political crisis in Spain that forced them to liberalize immediately, but they did so out of choice. Facing rising student protests and labor movements, Pinochet also chose to allow for a referendum in Chile in 1989 deciding his fate, and honored the results when he lost.[[12]](#footnote-12) On the other side, also facing rising student protests and labor movements, Park Chung-Hee of South Korea chose to deepen authoritarianism with more repression, enacting the Yushin Constitution in 1972. The Myanmar junta, facing a humiliating defeat as Pinochet did in 1988, decided to overturn the election results of 2020 by lauching a coup in early 2021. Standing in similar political crossroads, dictators often consciously make different choices.

The second mechanism might be called “the slippery slope” route. The leaders who made key difference in regime dynamics might not have regime changes in their mind, as an ideal or strategy, at least in the beginning. In fact they might have saving the regime in their mind. Recall that Louis XVI convened Estates General in 1789 in hope of saving his power, and that Gorbachev’s original reform plan in the mid-1980s was perestroika (restructuring) and glasnost (openness) rather than democratization. Yet, one step leading to another, political forces quickly re-aligned around the issue of political reform and carried away the leaders, eventually resulting in the tsunami of political changes. It is certainly unreasonable to attribute the end results wholly to the ones taking the initial steps, but the initial steps are important. To turn a deep-entrenched system around, the initial change from 0 to 1 are often more important than the accumulative changes later on when the momentum of change is already built. The reforms, positive or negative, are politically risky, and risk-taking is not a trait everyone, certainly not every autocrat, shares.

The third possible way leaders affect regime dynamcis is through implementing policies that shape new structural or institutional conditions. For many leaders, they might aim at neither regime changes nor minor political adjustments. They simply try to roll out some socio-economic agenda according to their ideological visions, but the policies could, through their success or failure, create a new strucutral condition that prompts regime changes. Park Chung-Hee spent great efforts on developing South Korea economy, a model later labelled “developmental state” by scholars, but ironically, the expanding middle class, rising education level and rapid urbanization, all consequences of economic development, became the soil for cultivating his opponents. On the other hand, Mugabe deepened authoritarianism in Zimbabwe in early 2000s, probably due to the economic crises that galvanized an opposition movement. But the Zimbabwean economic crisis around 2000 was not exogenous of Mugabe’s conduct. It was very much self-imposed due to the unwise economic policies Mugabe chose to implement.[[13]](#footnote-13) While not all structural conditions are self-imposed, to the extent that the leaders often shoot themselves in the foot that structural conditions can themselves be a leader effect.

Based on empirical observations and theoretical reflections illustrated above, we therefore hypthosize that authoritarian leaders influence regime changes significantly. On top of that, we propose an additional hypothesis: authoritarian leaders affect regime changes in both positive and negative direction, that is, they matter both for democratization and further autocratization. Besides the obvious point that autocrats can have different visions, there are two more reasons we hypothesize so. First is the warning by many scholars that transition from authoritarian rule does not teleologically point to democratic transition. It is historically common that one authoritarian regime transitions into another authoritarian regime (Taylor/Frantz, 2016), sometimes a deeper one, as happened when Mao Tse-Tung took over China from Chiang Kai-shek in 1949, or when General Qasim took over Iraq from King Faisal II in 1958. Second, scholars have repeatedly found that deep authoritarianism tends to be more stable than “mixed regimes” (Gates et al., 2006), so some autocrats could have incentives to deepen authoritarianism to achieve a more stable equilibrium. Therefore, we hypothesize that autocrats matter for regime changes in both directions.

1. **Strategy and data.**

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**Why Randomization Inference**

We employ Randomization Inference for Leader Effects (hereafter RIFLE or RI), developed by Berry/Fowler (2021), to study our research questions. Procedurally speaking, the RI involves regressing the outcome variable on real leader fixed effects, and then randomly permuting leader blocks within the same unit for many times, regressing the same outcome variable on the permuted data. If the p value, defined as proportion of cases when r2 from the permuted data being greater than the real r2, is < 0.05, it indicates that the leader effects are significant. From there, it is possible to calculate the effect size by factoring in the proportion of r2 difference into the actual outcome data. The rationale of RI is that if there is no leader effects, the real r2 should not significantly outperform those from the randomized data within the same unit, and if there is at least 95 percent probability that it outperforms the random data, it is plausible to conclude that the effects are significant.

While RI does not embed the concern of endogeneity into its implementation process, Berry/Fowler propose a procedure to address it. (开平可否麻烦你在这里写一下关于endogeneity test的解释？我怕我写不准确。如果需要占用很大篇幅，也可以这里简单描述几句基本要旨，然后用一个Appendix 详细解释)。

There are several reasons why we find Randomization Inference most appropriate for our study. First, compared to studies that uses measurable leader traits such as age, education or tenure to predict leader effects (Besley, 2011; Pappaiouannou, 2015; Hummel, 2020), it estimates the overall leader effects by using leader turnovers as the predictor. It is understandable that some scholars focus on measurable leader traits, but for outcome such as regime changes, the most measurable traits are not necessarily the most relevant ones, as scholars rarely attribute the differences Gorbachev or Deng made to their ages, education levels or tenure lengths. Instead, the RI essentially puts each leader’s traits into a “box,” measuring the overall effects of such boxes without specifying which items in the boxes matter most.

Second, compared to conventional regression method that also uses leader turnovers to gauge the leader effects, the RI includes all leaders into its analysis, thus maintaining a decent sample size, meanwhile avoiding potentially biased findings due to a skewed sample. Studies currently using leader turnovers often narrow down to leader-natural-death triggered turnovers in order to reduce endogeneity complications (Olken/Jones, 2005; Hummel, 2020). Despite mitigating endogeneity, this approach also has a heavy cost: it tends to reduce case number to a critically low level. As stated earlier, we can identify only 68 such turnovers in autocracies and 19 in democracies during 1946-2020, which might jeopardize the reliablity of regression results. In addition, by focusing on leaders clinging to power till their deaths, it disproportionately take in those strong-to-loyal turnovers, thus potentially biasing results, particularly when our outcome variable is regime change.[[14]](#footnote-14) In contrast, the RI includes all leaders to analysis, meanwhile providing a procedure to address endogeneity, as mentioned earlier, thus balancing case number concern and that of endogeneity better.

Third, it reduces the mixing of leader effects with transtion effects. Presumably, transition of power itself tends to produce regime instability even if the two leaders are of similar qualities and orientations. Conventional regressions are not well equipped to separate the two since leadership turnovers conceptually capture them simultaneously. The RI, however, reduces such problem because what it measures is not r2, but the differences of r2 between real and permuted datasets. Since both real data and permuted data involves power transitions, so the transition effects are in way canceled out, therefore what is left to explain the difference between r2 and r2 are leaders themselves.[[15]](#footnote-15)

Fourth, it also reduces the problem of serial correlation for similar reasons. Many conventional regressions on leader effects tend to overestimate the effects due to serial corrleation and time trends, but the RI likely minimizes the problem because, again, the focus on r2 differences rather than r2 itself means the serial correlation can largely cancel out each other from the two sets of regressions. In the case of no leader effects, if serial correlation inflates r2, it should inflates r2 equally from real data and that from permuted data; and in the case of havnig leader effects, since the only difference between real data and permuted data being the ordering of leaders, then a larger r2 is an indication of the leader effects even if serial correlation might also exists to a certain degree.[[16]](#footnote-16)

**Limites of Randomization Inference**

Despite the benefits elaborated above, the RI method also has its limits. First, by measuring leader effects with leader turnovers, it cannot discern the exact mechanisms how leaders make the differences. However, this is a common problem entangling all studies using the leader turnover to measure leader effects, and it is, in our opinion, a worthy tradeoff between discerning exact causality and obtaining the overall leader effects, particularly when identifying and measuring leader traits are extremely difficult. In fact, it is questionable to what extent such causal routes exist in a general sense. Although we laid out possible mechanisms of how leaders affect regimes earlier, what shapes regime dynamics in specific contexts can be very different: in this case it might be leader A’s ideology, in another case leader B’s grit, in the third case leader C’s charisma, or the fourth case their policies. Case studies are probably better equipped to analyze the exact causal mechanisms in individual contexts.

Second, since the RI makes evaluations within unit, it can underperform when the within-unit leaders do not vary significantly in qualities. For example, the three generations of North Korea leaders, Kim Il-Sung, Kim Jong-Il and Kim Jong-Un seem equally power hungry and equally cunning in monopolizing power. In this case, RI will likely show that there is no leader effects in regime dynamics in North Korea, but that does not mean being power hungry and politically cunning makes no difference in political realities. Instead, it only means that, when the differences similar leaders make are equal, the relative differences among these leaders will be negligible.

**Data.**

We rely on Archigos (version 4.1, Goemans…) to identify leader turnovers. Since Archigos is updated only to 2014 (check), we integrate leader information from Global Leader Ideologies dataset (Check. Herre, 2023) for 2014-2020. We exclude leaders who have been in power for two years or less, who presumably have too little time window to make a significant difference on regimes (我不大肯定是否有必要去除tenure 2年或以下turnover，请开平斟酌；怀疑如果不去掉，可能会略增加endogenous turnover可能性). We exclude countries with a population below one million in 2018.

We use the electoral democracy index from the Varieties of Democracy dataset (Berhard….) to separate autocracies from democracies, using 0.5 (along the 0-1 scale) as the cutting point.[[17]](#footnote-17) We also use this index to measure regimes and regime changes. For research question 1 (do leaders matter?), to ensure validity of our findings, we use both democratic level and change in democratic levels as the outcome variable, (差值法具体如何选用，请开平斟酌。减3年？5年？post 5年-pre 5年？average score of A减average of his predecessor? Last year of A减last year of predecessor?) to see if the results align. The democratic level variable tends to measure accumulative regime changes whereas the difference variable tends to measure the impacts each leader separately makes. For research question 2 (in which direction do leaders matter?), we establish two separate variables, one democratic change and the other autocratic change, by subtracting the democracy score at year t-3 from that at year t （t-3仅仅是一个说法，可以是别的，参见前一条抹黄部分）, and keeping the positive differences as democratic change (不大清楚这种情况下negative differences应该设为missing value还是0，请开平斟酌), and negative differences as autocratic change. Each outcome varaible is normalized to facilitate interpretation （有必要吗？好像原作者在endogenous test这一块的时候说到这一点）。

For the last question (in which conditions do leaders matter most?), we dichotomize cases with various political or economic criteria. To distinguish more developed autocracies from less developed ones, we use median value of the real GDP per capita from the Maddison Project to make the cut. To separate more equal autocracies from less equal ones, we use median value of GINI coefficient (disposable or market? Check with朱萌) from the SWIID dataset (……). We cut autocracies into “deep autocracies” and “mixed ones” along the democracy score of 0.25. We use the year 1989 to separate “polarized international order” from “liberal hegemonic order.” We also take advantage of the dictatorship types Geddes et al (Geddes, 2014). made to see if dictatorship types make a different on leader effects.

As recommended by Berry/Fowler, we preprocess data in the following ways before implementing RIFLE. First, for the leader turnover data, we drop missing data and stitch together blocks of time, coding a new time varaible for each leader, so that for each country we have a continuous time variable. Second, for the outcome variables, we demean them by year to remove time trends across units, which is very important in our case since regime changes often happen in waves. We also demean by unit, but, as mentioned by Berry and Fowler, it does not affect p values because the real data and simulated data have the same country features (是否有必要demean by country? 请开平斟酌). In their study, B/F also recommended an alternative way of processing the outcome variable, that is, conducting a linear regression between leadership turnovers and outcome variables on time and unit fixed effects, then using the residuls for the RIFLE. We also pre-process data this way, but to save space, we report RIFLE results from this exercise only in Appendix B (是否有必要? 请开平斟酌). As shown by the Appendix, the results from this alternative practice lead to similar conclusions.

Following Berry/Fowler, we do not bring in covariates to implement RIFLE for both methodological and theoretical reasons. Methodologically, since our main interests are △r2, not r2 itself, bringing the same set of covariates to the real data and the simulated data is unlikely to change the △r2 while probably improving r2 itself. Theoretically, as explained earlier, many variables conventionally used to explain regime changes are “collinear” with leader effects in that leaders improve or ruin economies, change institutions, provoke wars or make peace, so we should be very cautious to include such control variables when the focus is on discovering the leader effects.

此外，是否有必要lagging X and how?请开平斟酌。

1. **Results.**

As stated earlier, we have three sets of questions to investigate. First, do authoritarian leaders matter for regime changes? If so, what is the effect size? Second, in which direction do they matter? Democratization or autocratization, or both? Third, looking through political and economic conditions such as economic development, inequality, autocratic depth and international order, in which conditions do the autocrats matter most? We use RIFLE to analyze these questions one by one.

Conduct the exercise; interpret the results and visualize them if possible (最好包括 3、4个左右图表). 虽然朱萌做过tests，开平辛苦你重新做一遍，包括预处理数据这些，因为如果不是independent results互相校验的话，总觉得让人不放心。

以下是tentative signposts. Please feel free to discard them completely.

**Question 1: Results for “Do leaders matter?”**

**Step 1.1:** Rifle with Y=democratic level (demean). Compare democracies to autocracies. The findings are supposed to be that p value is significant in autocracies, but not in democracies, or at least the level of significance much higher in autocracies.

**Step 1.2 Robustness Check. 差值Y**: Rifle with Y=regime changes (year t减去 t-3，或者t-5 或其它差值法). 目标仍然与step 1.1同。

Step1.2 is supposed to be a robustness check of 1.1 但是两者也可以对调，开平你来决定谁当谁的robustness check. （从理论上、效果上——包括endogeneity test的效果，看哪个更合适）

差值法robustness check也可以是别的formula，比如:

Y=average score of Leader A- that of his predecessor；OR,

Y= score of the last year of Leader A减去that of his predecessor; OR

Y= first 5 years of Leader A- last 5 years of the predecessor

如果也试了残差法，可放入一个Appendix.

**Step 1.3** 计算effect size based on Step 1.1 or 1.2.

**Step 1.4** conduct the endogenous turnover test. （第一步常规回归计算endogenous turnover slope，看r2的change和significance level；第二步重新rifle on simulated data taking the endogenous slope into account。

**Question 2: Results for “In which direction do they matter?”**

重复第一个问题的做法，但是分Y1（民主变化）和Y2（威权变化）。

前面提到过一个问题，分析Y1时，那些差值的负值应该设为missing values or 0? Not sure，请开平斟酌。Y2问题类似，只是反向。

目前朱萌分析的结果，是Y1和Y2都显著，并且effect size差不多。但是Y1通过endogeneity test略勉强（FRR = 0.55）。

**Question 3: Results for “in which conditions leader effects are biggest?”**

加入这个问题会让我们的内容更加充实，但因为只是“锦上添花”，似乎不应占据太大空间。很多信息能放入Appendix的就放入Appendix.

Y应该都是我们Question 1里的主Y （democratic level or difference）。分组线索目前是这样，开平可斟酌是否有必要保留所有这些分类，或是否要加入其它分类（比如记得开平提到过tenure length，也可以是一个分组方式）。

目前朱萌分析初步的结果似乎是这样的，请开平校验。

|  |  |  |
| --- | --- | --- |
|  | Categories | 显著与否 |
| 经济发达程度 | More developed  (above median GDP pc) | ✔️ |
| Less developed  (below median) | ✔️ |
| 经济不平等程度 | More equal  (below median of GINI) | ✔️ |
| Less equal  (above median) | × |
| 威权深度 | Deep autocracies  (0- 0.25) | ×  (目前朱萌用的是0.1这个分界线) |
| Mixed autocracies  ( 0.25-0.5) | ✔️ |
| 国际格局 | Polarized Order  (1989 之前) | Y1 不显著  Y2 0.074显著  （其实可能用主Y测更好，不分Y1Y2） |
| Liberal Hegemony (1989后) | Y1 显著  Y2 不显著 |
| 威权类型  (Geddes) | Military | ✔️ |
| Party-State | × |
| Monarchy | × |
| Personal | ✔️ |
| 任期长短 | Short-Tenure | 未测 |
| Long-Tenure | 未测 |

1. **Conclusions**

待写（等results出来我再补）。

**Biliography （不全，80%）**

* Henk E. Goemans, Kristian Skrede Gleditsch, and Giacomo Chiozza, “Introducing Archigos: A Data Set of Political Leaders,” Journal of Peace Research 46 (March 2009): 269–83.
* Brown, The Gorbachev Factor, 1997
* Barros, “On the outside looking in: secrecy and the study of authoritarian regimes,” 2016
* Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub, and Fernando Limongi. 2000. Democracy and Development: Political Institutions
* Djuve, Patterns of regime breakdown, 2019
* Boix, Democracy and Redistribution, 2003.
* Olken/Jones “Do leaders matter? National leadership and growth since WWII”, 2005
* Berry/Fowler, “Leadership or luck? Randomization inference for leader effects in politics, business and sports”, 2021
* Acemoglu, Daron, and James A. Robinson. 2001. "A Theory of Political Transitions." *American Economic Review*, 91 (4): 938-963.
* Lennart Brunkert, “A tale of culture-bound regime evolution: the centennial democratic trend and its recent reversal,” Democratization, 26(3), 2019.
* Ingelhart/Wetzel, Economic development, cultural and democracy, 2005
* Carles Boix, Democracy, Development and the International System, American Political Science Review, 2011
* Kagan, The World America Made, 2013.
* Gandhi, Jennifer, and Adam Prezeworski. 2007. “Authoritarian Institutions and the Survival of Autocrats.” Comparative Political Studies 40 (11): 1279–301.
* Boix, C., & Svolik, M. (2013). The foundations of limited authoritarian government. Journal of Politics, 75, 300–316.
* Wright, Joseph. “Authoritarian institutions and regime survival: Transitions to democracy and subsequent autocracies.” 2012.
* Knutsen, “Autocratic Elections: Stabilizing Tool or Force for Change?” 2017.
* Geddes, Barbara, Joseph Wright, and Erica Frantz. 2014. “Autocratic Breakdown and Regime Transitions: A New Data Set.” Perspectives on Politics 12 (2): 313–33
* Gates, Scott, Havard Hegre, Havard Strand. “Institutional Inconsistency and Political Instability: Polity Duration, 1800–2000”, 2006
* Brownlee J (2009) Portents of pluralism: how hybrid regimes affect democratic transitions. American Journal of Political Science 53, 515–532.
* Rustow, Dankwart A. 1970. “Transitions to Democracy: Toward a Dynamic Model.” Comparative Politics 2(3): 337–63.
* O’Donnell and Schimitter, “Transition from authoritarian rule,” 1986;
* John Higley, *Elites Foundations of Liberal Democracy*, Rowman & Littlefield Pub Inc, 2006
* Michael Albertus, Authoritarianism and the Elite Origins of Democracy, 2018.
* Slater D,Wong J. 2013. The strength to concede: ruling parties and democratization in developmental Asia. Perspect. Politics 11(3):717–33
* Riedl , “Authoritarian-Led Democratization,” 2020
* TREISMAN, D. (2020). Democracy by Mistake: How the Errors of Autocrats Trigger Transitions to Freer Government. American Political Science Review, 114(3), 792-810.
* “Leader Age, Death, and Political Liberalization in Dictatorships.” 2020.
* **Kendall-Taylor and Frantz (“when dictators die”, 2016)**
* Pappaiouannou, “The dictator effect: How long years in office affect economic development.” 2015
* Fuhrmann Matthew, Horowitz Michael C. 2015. “When Leaders Matter: Rebel Experience and Nuclear Proliferation.” Journal of Politics 77 (1): 72–87.
* Herre, B. (2023). Identifying Ideologues: A Global Dataset on Political Leaders, 1945–2020. British Journal of Political Science, 53(2), 740-748. doi:10.1017/S0007123422000217
* Besley, Timothy, Jose Montalvo, and Marta Reynal-Querol. 2011. “Do Educated Leaders Matter?” Economic Journal 121:205–27.
* Maddison
* SWIID
* V-Dem
* Episodes of Regime Transitions

1. 尽管后来。。。 [↑](#footnote-ref-1)
2. [↑](#footnote-ref-2)
3. [↑](#footnote-ref-3)
4. Democracies and autocracies are demarcated through the 0.5 cutting point along the Electoral Democracy index of V-Dem. Appendix X lays out data in this figure. [↑](#footnote-ref-4)
5. 包括 all leaders who was in power for 2 years or less. [↑](#footnote-ref-5)
6. In the Episodes of Regime Transitions dataset, democratization episode is defined as …We take the first year of such episodes as the “onset” year. The same applies to the autocratization episodes. [↑](#footnote-ref-6)
7. 只到2014，我们补充了剩下的。。。 [↑](#footnote-ref-7)
8. Among the 19 deaths, 7 were leaders who had been in power for 2 years or less, which should caution us against any generalization. [↑](#footnote-ref-8)
9. Again, considering the small sample size (68 deaths observed in total, in which 8 had a tenure of two years or less), it would be an over-statement to conclude that deaths of autocrats are correlated regime changes. [↑](#footnote-ref-9)
10. This observation also lends credence to our suspicion that focusing solely on exit-by-death turnovers could bias findings to the conservative side. [↑](#footnote-ref-10)
11. On why GDP per capita from Maddison… and why Party institutionalization index from V-Dem… All variables are normalized into 0-1….不幸的是，没有观念数据；没有足够的不平等数据； [↑](#footnote-ref-11)
12. although some argue that the referendum was merely Pinochet’s “miscalculation” (Albertus…) [↑](#footnote-ref-12)
13. Even international factors are not entirely exogenous. Japan democratized during the American occuption, but the occupation would not have taken place if the Japanese leaders had not launched the war in the first place. [↑](#footnote-ref-13)
14. For example, transitional figures such as Hua Guofeng (China), Rahmen Arif (Iraq), Kania (Poland) are included for analysis, but the rise of Deng Xiaoping in China, Mubarak in Egypt, Saddam Hussein in Iraq or Suharto in Indonesia are treated as non-events. Such skewness is likely to undermine the generality of the results. [↑](#footnote-ref-14)
15. In fact, the authors argue that RI might underestimate the leader effects due to the fact that it “stitches” leaders with several serving terms together as one block in real data (check: 朱萌这样做了吗), thus keeping the number of transition for each leader at 1, but the same leaders can have multiple transitions in permutated data, thus increasing r2 in permutated regressions. [↑](#footnote-ref-15)
16. The authors used simulated data to compare the effects of serial correlation on conventional regressions and those on RI, revealing that conventional regression results are seriously contaminated by serial correlation whereas RI result are not. In addition, it also reduces the complications of overfitting because, by holding the number of fixed effects in each regression constant and the distribution of tenure across leaders constant, such complications should be the same for the real and permuted data. [↑](#footnote-ref-16)
17. However, we allow a bit flexibility by labelling the first cases across the 0.5 border (upward or downward) as overlapping cases, meaning that they are coded as both democracy and autocracy (161 such cases in total). Without such flexibility, we essentially assume that autocratic leaders only affect regimes within 0-0.5 range and democratic leaders within 0.5-1 range, which is often not the case. For example, in Argentina, the first democracy score for Alfonsin was 0.19 (1983), and it rose to 0.84 in 1984, staying around 0.84 for the rest of his tenure (1985-1988). Without the flexibility rule, Alfonsin’s tenure will be cut into 1983 (the autocratic year) and 1984-1989 (the democratic years), and when separately analyzing either category, it would be appear that democratic level under him did not change much, which is seriously twisted information for Alfonsin. In fact, without the flexibility rule, it is exactly the leaders who made biggest differences being ignored. We therefore label the country-year Argentina-1984 as an overlapping case to prevent such a heavy loss of information. The same exercise is applied to both downward and upward “border-crossing” to ensure methodological neutrality. [↑](#footnote-ref-17)