Are all alike ? The Effect of Legislatives on Coup D'etats in Authoritarian Regimes

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Abstract

Past research suggest that nominally democratic institutions creates an alternative path for ruling elites to monitor and restrict the hand of the dictator therefore reduces the need for some type of coups but not the others. In this paper, we further develop these arguments that the effect of nominally democratic institutions do not just depend on the type of coups but also conditional to the power balance between the dictator and the ruling elites. To systematically test this argument, we run a penalized logit model which specifically overcome the drawbacks of using fixed effects with rare event data. Our findings show a change in the effect of nominally democratic institutions on probability of coups as the power sharing between the plotters and the dictator changes. On the other hand, these effects are absent in case of the regime-change coups.

Are all institutions same to serve regimes' end for authoritarian countries ? While well established literature on authoritarian politics argues that legislatures are effective for the consolidation of power (e.g.,Boix & Svolik, 2013; Brownlee, 2007; Gandhi, 2008) and the autocratic stability , implicit assumption on same effectiveness of legislatures for authoritarian rules has been rarely questioned (Meng, 2020). During ever going power struggle between the leader and ruling elites, the varying balance of power can turn the once effective institutions to a facade entity. Or this power balance can effect the institutions differently in different countries. Therefore, temporal and spatial variation in the effectiveness of institutions are highly expected.

In this paper, we will address this gap in the literature by looking at the effect of authoritarian institutions on the likelihood of different types of coups and how these effects change depending on the current power sharing between leader and the elites. More specifically, we argue that the presence of legislatures in authoritarian regimes reduces the likelihood of reshuffling coups which aim to change leader but not the regime, while it has no meaningful impact on the likelihood of regime-change coups. We expect legislatures to create alternative ways for ruling coalition members to hold the leader accountable and thus, diminish the need for punishing opportunistic leaders via reshuffling coup as an extreme way. However, the mere existence of an alternative way is not enough to decrease the probability of a coup but this alternative way also needs to be a credible option and this option is only credible when the ruling elites have enough power to overthrow the leader via coup or make the leader believe that they have so. Therefore, we argue that the effect of the legislature to reduce the likelihood of reshuffling coups is conditional on the power share between the ruling elites and the leader. On the other hand, the goals of the plotters of a regime-change coups are incompatible with the existing institutions' values and rules and, thus, are not attainable via activities within the institutions. Therefore, we cannot expect the legislatures to create alternative ways for the plotters of regime-change coups to realize their goals and, thus, decrease the probability of a coup.

Our findings have important implications for the literature on comparative authoritarianism. Our study highlights the importance of differentiating between different types

of coups as well as different degree of effectiveness of the institutions within the authoritarian regimes when evaluating the role of political institutions on authoritarian stability. Therefore, our findings show that institutions may not be as effective in all circumstances to help authoritarian regimes to survive as the literature previously claims.

Institutions, Coups and the Power-Share in Authoritarian Regimes

Since after the post-cold war period, it is increasingly more likely to see some kind of nominally democratic institutions such as political parties and legislatures that have been adopted by authoritarian regimes (Meng, 2020,p.38). For many scholars today, these institutions are not only window dressings for an increasingly democratic international audience but are strategically established by the autocratic leaders to counter various threats to their power and to increase their chances of political survival (e.g., Boix & Svolik, 2013; Gandhi, 2008; Gandhi & Lust-Okar, 2009; Magaloni, 2008; Svolik, 2012). Dictators use political institutions such as legislatures to address broadly two types of threats such as mass protests that come from the groups outside the regimes or the threats coming from the elites such as coup d'etats (Svolik, 2012, p. 477-478).

One of the main functions of institutions could be to help the leaders to counter the threats coming from the masses by creating a co-optation mechanism that helps them broaden their basis of support (Ghandi, 2008; Woo and Conrad, 2019). For example, dictators can use legislatures and political parties to distribute rents and privileges hence broaden their clientelistic ties with citizens as well as regime opponents (De Mesquita et al., 2003). By providing jobs, benefits, and other privileges, the nominally democratic institutions can increase the support for the incumbent regime or at least reduce the incentives to challenge it (Gandhi, 2008; Geddes, 2005; Svolik, 2012). Hence, the nominally democratic institutions can decrease the threats coming from the masses.

As much as reducing the threat of the masses are important for the authoritarian leaders, countering the threats such as coup d'etats that coming from within the regime

is even more crucial for their survival since nearly the third of all authoritarian leaders overthrown by a coup (Svolik, 2009; Geddes et al., 2018). Additionally, coup attempts are shown to induce more violence (De Bruin, 2019), as well as severe long-term effects on countries' stability (e.g., Powell & Chacha, 2016). Therefore, reducing the likelihood of coup attempts should be the priority for every authoritarian leader that wants to prolong its survival and its regime stability. Past research supports the fact that political institutions reduce the risk of coups (e.g., Boix & Svolik, 2013; Bove & Rivera, 2015; Geddes, 2005; Magaloni, 2008; Miller, 2020; Olar, 2019; Svolik, 2012; Woo & Conrad, 2019). Regime elites use coup threat as an accountability mechanism against opportunistic leaders who aim to increase their power at the expense of regime elites. On the other hand, coup making is the last resort for regime elites since it is both costly and there is not a guarantee for its success. Rather than ending with this risky and costly resort, regime elites would choose some other mechanisms such as provided by institutional arrangements to decrease the opportunistic behavior of the leader. Nominally democratic institutions can facilitate collective action among regime elites (Boix & Svolik, 2013; Gehlbach & Keefer, 2012) by increasing information flow, providing an area for elites to interact with each other, and formalizing the interaction between the elites and the leader (Albertus & Menaldo, 2018; Gehlbach & Keefer, 2012; Boix & Svolik, 2013; Svolik, 2012). The increased capacity for coordinated action on the side of regime elites, in turn, helps the regime elites to make more credible threats against the leader. As the credibility of the coup threat posed by ruling elites increased, leaders' incentive for opportunistic behavior decreased. Hence, the leader became more committed to the existent power-sharing deal. As long as regime elites monitor and hold the leader accountable with the institutionalized interactions and with the increased credibility of the coup threat provided by the institutions, regime elites do not attempt a coup. In short, a scholarly consensus is that political institutions, such as legislatures, reduce the probability of coup attempts in Authoritarian regimes.

One shortcoming of this scholarly consensus may be that the fault of considering all the authoritarian regimes and the democratic institutions within them as somewhat

similar. However, we know that on the contrary, there is significant variation in the forms of non-democratic rule as can be expected from the origins of the categorization since what we call authoritarianism is in essence a makeshift category that includes regimes that failed to pass the threshold to be categorized as democracies. Furthermore, the origins of and the variation in the authoritarian regimes can also be seen from the various attempts from the scholars to create categorical typologies of these regimes (Hadenius and Teorel 2007; Gandhi, 2008; Goemans et al., 2009; Cheibub et al., 2010; Svolik, 2012; Karl, 1995; Diamond, 2002; Schedler, 2009; Levitsky and Way, 2010) in pursuit of accurate differentiation.

Among all the typologies, Geddes' original classification (Geddes, 1999) that reflects three ideal types of autocracy, Military, Party, and Personalist, is still the one that is most commonly used in the literature. According to Geddes et al. (2014), a regime is a set of formal and informal rules for choosing leaders as well as policies. By identifying the group from which leaders can be chosen and determining who influences leadership choice and policy, we can distinguish between the regimes. No leader can come into power by himself alone, therefore the groups that influence leadership choice are most commonly the "launching organizations" or "seizure groups" which bring autocratic leaders in power (e.g., Haber, 2002; Geddes, Wright, and Frantz, 2018). The first two types of authoritarian rule in Geddes' original typology focuses on two types of these groups, military and political parties. The third type, personalist regimes, on the other hand, includes the regimes where the leader gained enough power at expense of the groups that support him earlier.

This original classification has one critical shortcoming. Binary and time in-varying categorization lead to information loss and it is not possible to see the changes within the regime about who rules with to what extent (Wright 2019). The new time-varying latent measure of personalism (Geddes et al. 2017, Wright 2019) overcomes this problem by providing a new way to look at the changes within the regime. The level of personalism measures the consolidation of personal power in the hands of the dictator at the expense of the groups that support him. For example, the regime leader has more power when he controls appointments to high office. While it is argued that legislatures provide the

ruling elite with alternative ways to constrain the opportunistic behavior of the leader, legislatures would be the only facade institution if the regime is mainly dominated by the power of the leader. Without a powerful elite against the leader, there will be not a credible commitment of the leader to any existing power-sharing agreement since there is not a force to be counter this action of the leader or an arbitrator third party. In short, the level of personalism can act as a measure of the quality of effectiveness of the institution.

Effectiveness of Institutions on Coup Attempts

Personalism captures the internal power dynamics of a regime in a particular year and we argue that this information is highly related to the effect of legislation on the probability of coups which depend on the credibility of coup threats posed by regime members, hence their power relative to the leader. Therefore scholarly consensus on decreasing effect of legislatures on coup attempts cannot capture the whole reality by overlooking crucial aspects such as the differences in the existing personalism level of authoritarian regimes and the type of coups.

In this article, following Powell and Thyne (2011), we define coup d'etats as any attempt by the members of the state apparatus to overthrow the leader using unconstitutional means. The regime members are defined as the members of the state apparatus. Thus, coup plotters are by definition regime members (Slovik 2012). On the other hand, we could differentiate between two types of regime members. Coalition insiders are the regime members that have power and the position to influence key policies as well as enjoying the benefits of the status quo. Therefore, coalition insiders have a significant stake in the regime and its survival. Coalition outsiders do not have this power and position or extract significant benefits from the status quo. After differentiating between the regime members, we can make a distinction between the reshuffling coups and regime change coups which differ by their plotters being coalition insiders or outsiders and the accompanying goal of their plotters (Aksoy et al. 2015).

We argue that legislatures are not effective in reducing the probability of all coups and all the time but could be effective in reducing the probability of coup attempts perpetrated by the leaders' ruling coalition and if the ruling coalition has an adequate share of power at the expense of the leader. The members of the ruling coalition already have a stake in the regime and therefore their primary interest is to preserve their stake. The leader, on the other hand, wants to increase its power at the expense of the ruling coalition (Geddes et al. 2018, p 72-73). In this ever-ongoing power struggle, members of the ruling coalition use the coups basically as an accountability mechanism to make leaders commit to the existing power-sharing agreement. Therefore, if an institution can provide the same goal, preserving the status quo, without the costs of an actual coup, the regime members or would-be coup plotters would choose alternative ways provided by the institutions to hold the leader accountable. This in turn reduces the probability of coup attempts. Furthermore, we argue that existing power-sharing between the leader and the ruling coalition is also important in this equation as if the leader is already too powerful, there would be no way for a leader to credibly commit to the status quo. On the other hand, when the would-be coup plotters are not the ruling coalition members, their goals are fundamentally different. The primary goal of regime members outside the ruling coalition is to become the ruling coalition by overthrowing the old regime elites as well as their policies, rules, and institutions. As this goal cannot be reached through the ways provided by legislatures, they do not reduce the probability of coups that are plotted by the regime members outside the ruling coalition.

Reshuffling Coups

Reshuffling coups are often executed by coalition insiders who want to replace the incumbent leader but preserve the existing regime and their stake within it (Aksoy et al., 2015, p. 429). As coalition insiders already have the power to influence the policies, rules and enjoy the privileges of being in power, they want to keep the existing rules or in other words "the regime" and only want to remove the leader. The question is when and why

the coalition insiders want to remove a leader they once supported. The coalition insiders and the leader are doomed to be in a continuous power struggle (Geddes et al. 2018). Coalition insiders always at least want to keep their share of power and privileges, in other words, they want to make the leader committed to the existing power share agreement. If the leader does not commit this agreement or violate it, the coalition insiders punish the leader if they can. On the other hand, the leaders are opportunistic which means they want to increase their power at the expense of the coalition insiders. Therefore, the leader violates the agreement, if he finds an opportunity. As there is no higher authority or arbiter and at least one side is opportunistic, the existing power-sharing agreements between the leader and the coalition insiders suffer from commitment problems. This means that the leader only commits to an existing power-share agreement if and only if there is a credible threat of punishment posed by the coalition insiders. Otherwise, there is no way that an opportunistic leader can credibly commit to an existing agreement (Svolik, 2012). In this struggle, coalition insiders use reshuffling coups as an extreme way to punish the leader. Therefore, the threat of reshuffling coups works as an accountability mechanism to restrain the leader's opportunistic behavior. We argue that legislatures can reduce the probability of reshuffling coups by providing an alternative way to hold the leader accountable and thus reducing the need for the coalition insiders to resort to significantly costly coups.

Institutions such as the legislatures "are potential venues of political contest and decision-making delineated by formal (often written) rules that may, in some contexts, structure political interaction"(Wright,2021, p.2), therefore they can provide the coalition insiders with alternative accountability mechanisms. Legislatures can increase the credibility of the threat of punishment posed by the coalition insiders by facilitating collective action among them(Boix & Svolik, 2013; Gehlbach & Keefer, 2012). Institutions provide a venue and set of rules for coalition insiders to interact with each other, this, in turn, increases the flow of information among the coalition members. Increased information among members helps the ruling elite to overcome collective action problems and strengthen their collective defenses against the leader (Albertus & Menaldo, 2018;

Gehlbach & Keefer, 2012). As the more coordinated and informed ruling elite increase the credibility of their threat of punishment, leaders become more likely to commit to the status quo. Furthermore, the institutions do not only structure the interaction between the ruling elite but also institutionalize the interaction between the leader and the ruling elite. The regular interaction and increased chance for the ruling elite to monitor the leader, reduce the opportunities for the leader to seize power as the leader's opportunistic behavior can be detected more easily. This increased formal interaction between the leader and the ruling elite also decreases asymmetric information between two sides (Gelbach et al. 2015). In short, political institutions can provide an alternative mechanism to the ruling elites to make the leader more likely to commit the existing power share-agreements and reduce the need for coups.

On the other hand, these institutions may not always be as effective. Until now we assume that the power that the leader concentrated in his hands at the expense of the ruling elites, in other words, the level of personalism, is somewhat balanced. This is not always the case. On the contrary, the level of personalism varies considerably between regimes and through time within the regimes. We expect this variation in the level of personalism to affect the effectiveness of the legislatures to reduce the need for ruling elites to attempt coups. As explained above, institutions such as legislatures reduce the need for ruling elites to attempt reshuffling coups because they provide an alternative way to make the leader more likely to commit the existing power-share agreements. But after a certain level of personalism, nothing could make an opportunistic leader credibly commit to an agreement as simply the ruling elite has no power to make a credible threat of punishment anymore. In other words, we expect the legislatures to be effective in reducing the probability of reshuffling coups only when the existing level of personalism is under a certain threshold. Therefore our first hypothesis is

H1: Legislatures decrease the likelihood of reshuffling coup attempts when the level of personalism is low.

Regime-Change Coups

In contrast to reshuffling coups, the primary goal of the regime change coups is to change the existing regime. As coalition outsiders do not have any power to influence policy or receive the benefits that come from the distribution of perks and privileges inside the regime, the coalition outsiders are the most likely plotters of the regime change coups rather than initiating more costly and long term ways such as initiating mass uprising and starting a civil war (Geddes et al. 2019 pp. 31-33). By attempting a regime change coup, the coalition outsiders aim to overthrow the old ruling elite and install a new ruling elite. We claim legislatures do not affect the likelihood of regime change coups. Furthermore, we also argue that this ineffectiveness is also not dependent on the current power-share between the leader and the ruling coalition that the plotters of regime-change coups are not a part of.

The institutions reduce the probability of reshuffling coups by providing alternative mechanisms for the ruling elites to achieve their goal of holding the leader accountable. On the other hand, the goal of the plotters of regime change coups is incompatible with the mechanism that was provided by the institutions. The institutions controlled by the ruling elite cannot help the coalition outsiders to change the ruling elite itself. The institutions such as legislatures that improve the stability of the regime by structuring the interactions between the elites and the leader cannot also provide ways to overthrow the regime (Kim & Sudduth, 2021). Thus, the institutions do not reduce the need for coalition outsiders to resort to extreme options such as regime change coups to reach their goal. Moreover, as the level of personalism is related to the relative power share of the leader at expense of the ruling coalition and the coalition outsiders are by definition excluded from the power inside the regime, this ineffectiveness of institutions would not depend on the existing level of personalism of the regime. Therefore,

H2: Legislatures do not affect the likelihood of regime change coup attempts regardless of the level of personalism.

Research Design and Data

We test our hypothesis with time-series cross-sectional data at the country-year unit-of-analysis and with a sample consisting of 118 authoritarian countries over the years 1946 to 2010. We have two dichotomous dependent variables, Regime-Change Coup and Reshuffling Coup, that identify whether each type of coup attempt occurs in a given country-year (Aksoy et al., 2015; Chin et al., 2020). According to Aksoy et al.(2015), Regime-Change Coup is coded as one either if successful coups entailed changes in the rules for leadership selection and key policy and personal decisions (i.e., regimes), or if coup plotters of failed coups would have overthrown the current regime had the coup succeeded. Reshuffling Coup is coded as one either if successful coups reshuffled elites within the regime, or if plotters of failed coups would have simply reshuffled the leadership (Aksoy et al., 2015, p. 11).

Our main independent variable is also dichotomous, Legislature which is obtained from Geddes et al. (2018). Geddes et al. (2017) define legislature as an institution that can enact laws that are different from the executive. If such a body exists in a country in a particular year, our main independent variable Legislature is coded as one, otherwise 0.

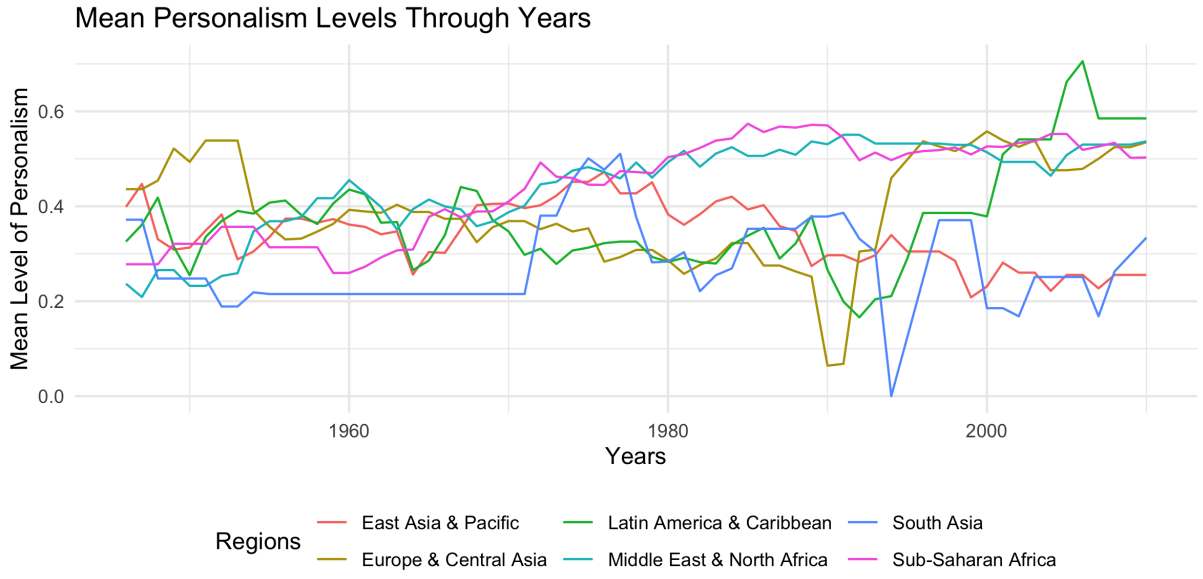


Figure 1: Mean Level of Personalism in World Regions Through Years

Our second main independent variable is obtained from Geddes et al. (2017), Personalism is a time-varying latent measure of personalist power which is the degree of leaders' power that the leaders concentrated at his hands at the expense of the ruling elite. The latent variable is constructed using 8 variables that are also included in the same dataset using explanatory factor analyses and item response model. These variables that are used to form latent personalism variables include variables such as related to access to high office, support party, dictator's control on executive appointments, dictators control on security apparatus, the existence of a paramilitary loyal to the dictator. All the variables as with the latent Personalism are continuous and range between 0 and 1. As well as Personalism, we also included an interaction term between Legislature and Personalism to account for the effect of Legislature conditional on the level of personalism. Figure 2 shows the variation in the mean level of personalism in each region of the world. As it can be seen there is a considerable level of variation in the mean personalism level of the regions. For example, the mean level of personalism in Latin America started its rise from the level of 0.2 in early 1990 to reach nearly the level of 0.8 in mid-2000. On the other hand, the personalism level in South Asia and East Asia regions decreased overall from the level of 0.5 in the late 1970s to nearly 0.3 at the end of the 2000s.

We also included several control variables that are commonly used in the field. First of all, we include two economic indicators GDP per capita and Economic Growth as the health of a country's economy may affect the probability of coups. Both of these control variables are coming from the Penn World Tables dataset (Feenstra et al., 2015). GDP per capita, which we use the logged version, measures the natural log of a country's gross domestic product per capita. Economic Growth captures the level of yearly economic growth in the country. We also include the log of the population of each country as it is general practice in the literature. All these variables are lagged by one year. Secondly, we include a dichotomous variable Military Leader which is coming from Geddes et al. (2018) and coded as one of the regime leaders who was a member of the military before rising to power. We chose to control for leaders with military backgrounds apart from our personalism variable as we expect that leaders with military backgrounds might be more

vulnerable to coup threats. Lastly, to control for the unobserved country and year-specific reasons for the coup we use both country and fixed effects. In the end, our systematic component of the model is :

$$CoupAttemptType_i = \beta_0 + \beta_1 Legislature_i + \beta_2 Personalism_i + \beta_3 Legislaturei \times Personalism_i$$

$$+ \beta_4 MilitaryLeader_i + \beta_5 log(GDPpc)_i + \beta_6 GDPGrowth_i + \beta_7 log(Population)_i + \beta_8 PostColdWar_i$$

$$+ CountryFixedEffects_i + YearFixedEffects_i$$

As both of our dependent variables are binary variables, we use the logit model. However, both using the rare event data and including country and year fixed effects for the logit model can lead to biased estimates since "evaluating event-experiencing units gives an inaccurate estimate of the baseline risk"(Cook et al. 2020, pp 92).To overcome this problem, we use penalized logit model to get estimates by using a complete sample following the advice of Cook et al.(2020). Lastly, we used robust standard errors to consider heteroskedasticity.

Results

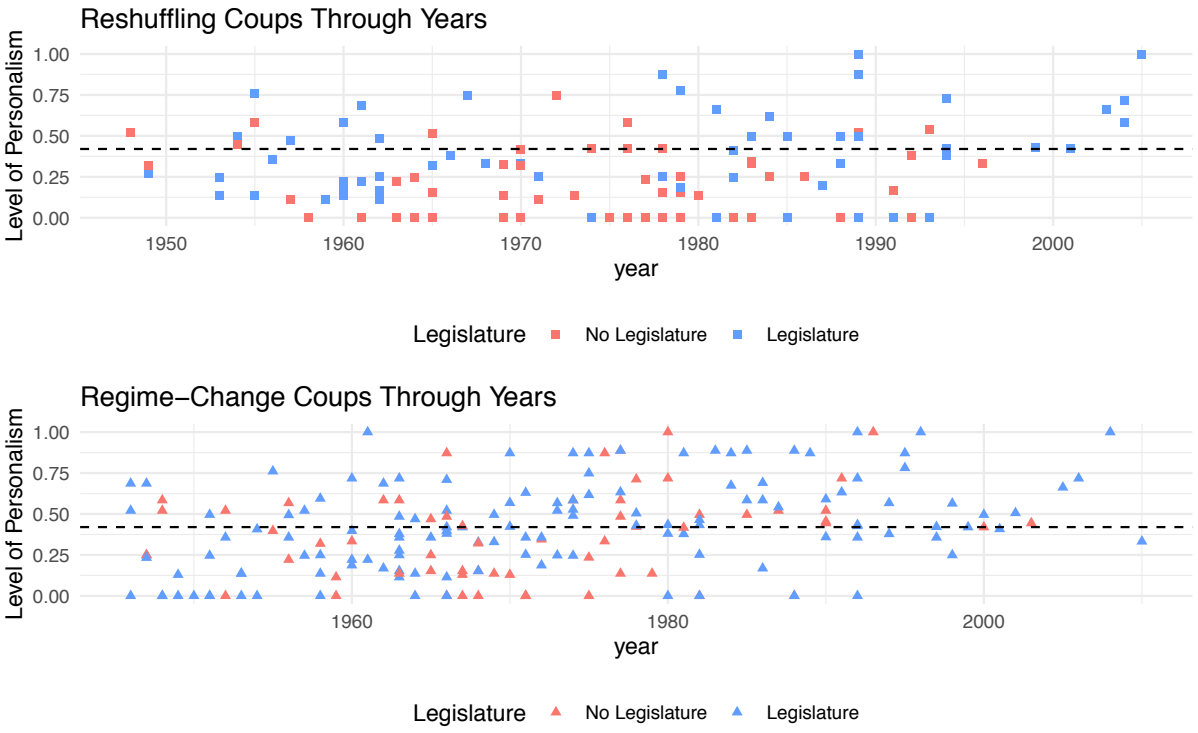


Figure 2: Different Type of Coups Through Years

Before looking at the results of our models, figure 2 provides us with a preliminary analysis to see the effect of legislation and personalism on both types of coups. On the upper side of figure 2, it is clear that most of the regime shuffling coups are attempted in the regimes whose personalism levels are below the median level of personalism. It could be interpreted as regime elites resort to a coup attempt if they have power to some degree relative to the leader. If the leader already has most of the power to govern the regime, any possible coup attempt from regime insiders would have a low success rate and this can make regime insiders avoid coups even they are not satisfied with the existing power-sharing. Furthermore, below the median level of personalism, 69 percent of the coups coming from regimes with legislatures. While in our data, 78 percent of all country-year observations have the presence of legislature, more than the majority of the reshuffling coups are attempted by regime insiders in the regimes having no legislatures. On the other hand, the lower side of figure 2 shows that regime change coups are seen in nearly all degrees of personalism level with similar rates. Furthermore, 48 percent of all regime

change coups are attempted in the regimes having legislatures. Therefore, we can see support from this preliminary analysis for both of our hypotheses.

To understand the effect of legislatures on the probability of coups, we run penalized logit models with the above specified linear component on our data for each of our coup types(Appendix A3). As the raw coefficients, especially in the case of logistic regressions, can be hard to interpret, we later simulated meaningful quantities of interest. First, we simulated the probability of each coup type for a scenario that a legislature exists in a country-year for every level of personalism from 0 to 1. Then we simulated the probability of each coup type for a scenario that a legislature does not exist in a country-year for every level of personalism and take the difference between the former and the latter on every personalism level. We use the observed value approach to get the "estimate of the average effect " for all country-year observations rather than using average case scenario since values for an average-case scenario could be arbitrary and far from the realistic case(Hanmer and Kalkan 2013, 563).

You can find the results of these simulations below in the figures. For all the figures below x-axis shows the level of personalism. The y-axis shows the predicted probability of respective coup types or the difference between two scenarios. As we always deduct the predicted probability of a coup when there is no legislature from the predicted probability of a coup when there is the legislature in a country-year, the negative values in the y-axis show a decrease in the predicted probability of the respective coup type when legislative exist in that country-year. Furthermore, as we used country and year fixed effects, the change in the predicted probabilities shows the within-country effect(Mummolo and Peterson 2018) of the reason behind the specific change. The horizontal dashed lines show the 95% confidence intervals. The colored vertical dashed lines show the overall within-country mean of personalism level and one within-country standard deviation above and below the mean. The solid line shows the mean difference in the predicted probability. Lastly, the distribution of our country-years on the level of personalism can be seen in the histograms on the background.

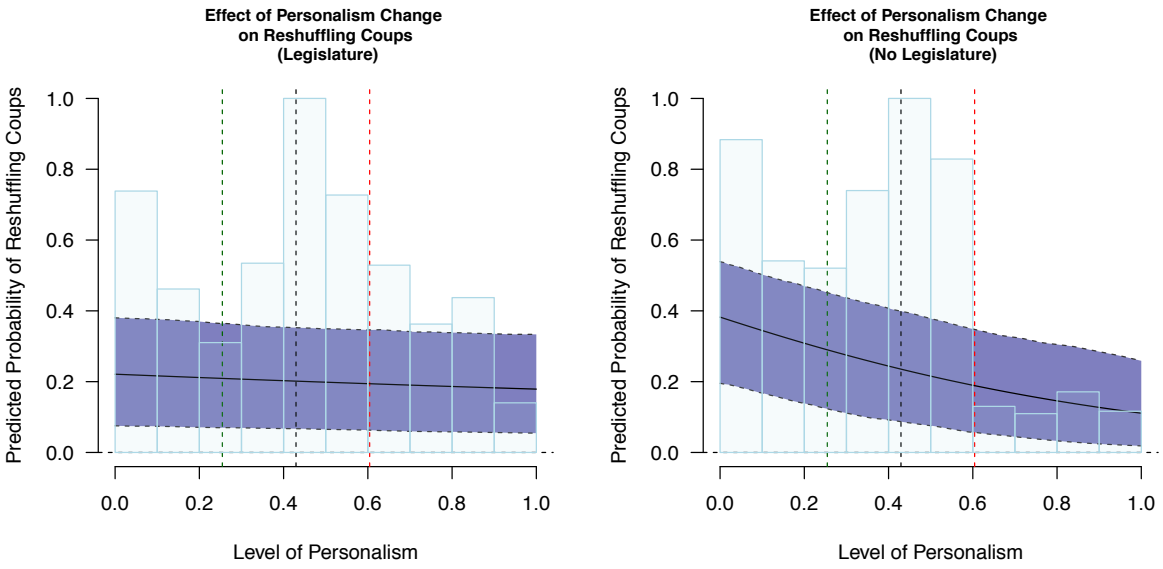


Figure 3: Effect of Level of Personalism on Reshuffling Coups with and without Existence of a Legislature

Figure 3 shows the difference that the level of personalism makes in predicted probabilities of reshuffling coups before taking the first difference between the two scenarios. On the left side, you can see this effect when there is a legislative in a country year and on the right when there is not a legislature. We can take several insights from these figures. First of all, it can be seen from the plot on the right-hand side that when there is not a legislature in a country-year, an increase in the level of personalism decreases the predicted probability of a reshuffle coup attempt. Furthermore, this decrease is significant. Holding everything constant, if a country has the mean level of personalism(0.42) and experiences a decrease in the level of personalism to one within-country standard deviation below the mean (0.25), the probability of regime shuffling coup increases about 5(+/- 3) percent. Therefore, the probability of regime shuffling coup increases from about 23(+/- 16) percent to about 29(+/- 16). If it increases from mean to one within-country standard deviation higher (0.60), the probability of coup success decreases about 4 (+/- 2) percent in that country. On the other hand, this is not the case when there is a legislature. As it can be seen from the plot on the left, changes in the level of personalism do not lead to a significant change in the predicted probability of reshuffling coups.

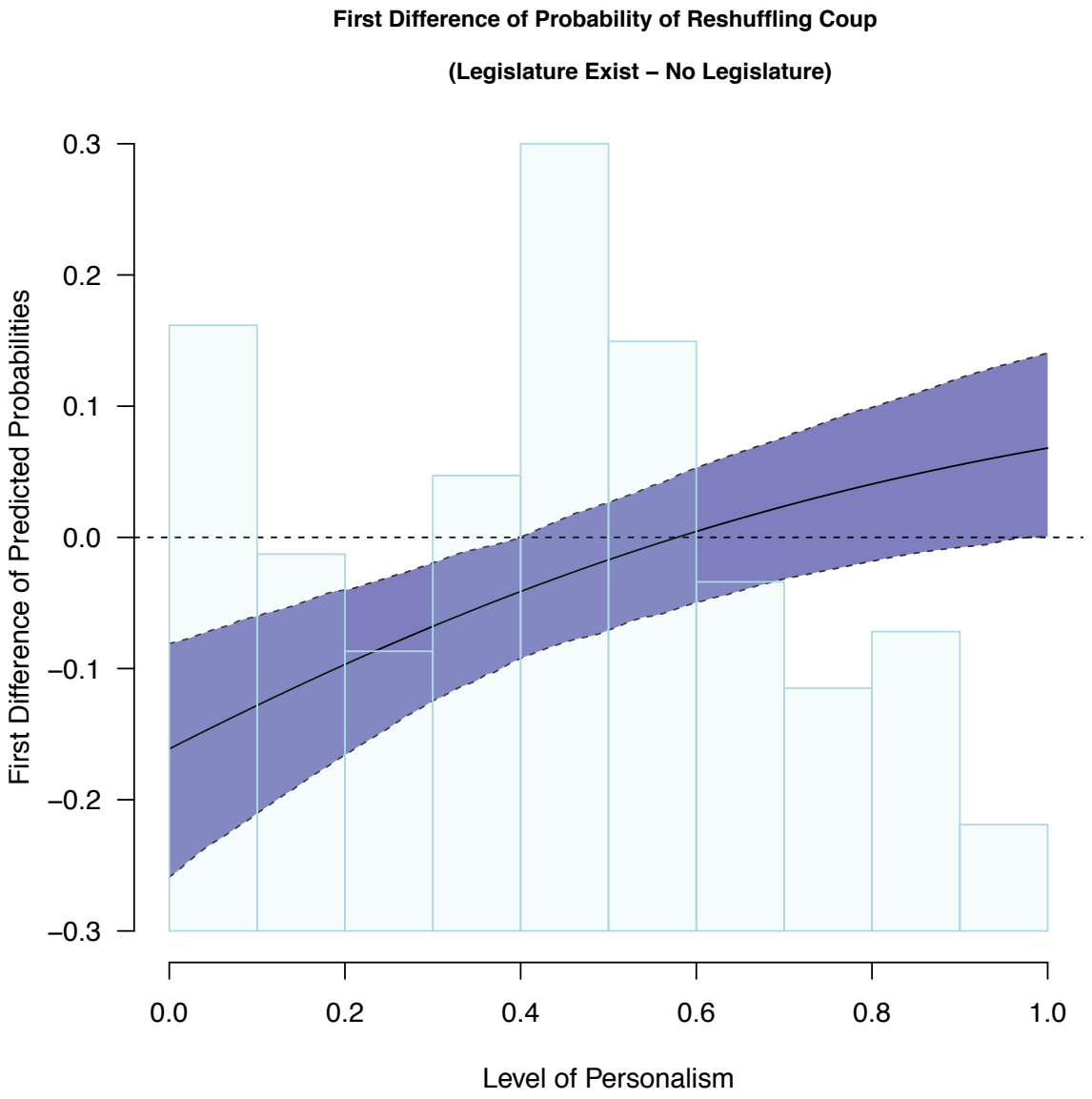
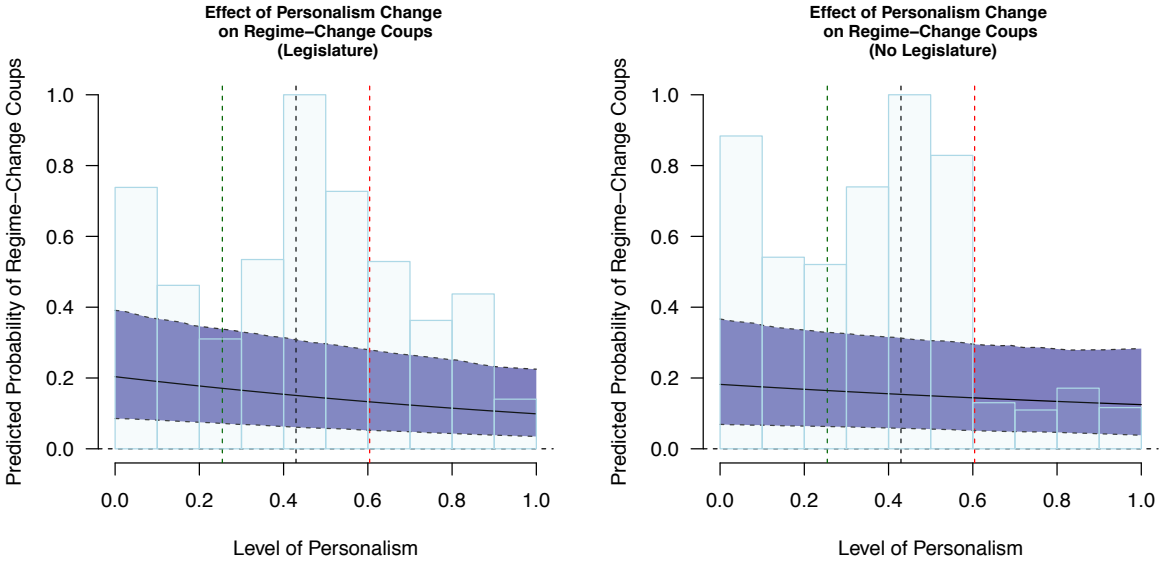


Figure 4: First Difference in Predicted Probabilities of Reshuffling Coups (Legislature - No Legislature

Above in the figure 4, you can see the difference in the predicted probabilities in the case of reshuffling coups. When we take the first difference between the two scenarios, the effect of legislatures on the probability of reshuffling coups becomes clear. First of all, when the level of personalism is low, legislatures reduce the predicted probability of the reshuffling coups. For example, holding everything constant, when the level of personalism is at its lowest, the existence of a legislature in a country-year overall decreases the probability of the reshuffling coup by around 0.16(+/- 8) percent. Furthermore, this

effect of legislatures is significantly different than zero until the median level of personalism which is nearly 0.4. This supports our argument that depending on the existing level of personalism, the legislature can reduce the probability of attempting a reshuffling coup and contribute to the survival of the leader. Institutions can provide alternative mechanisms for the ruling elite to hold leaders accountable and thus decrease the need for them to punish the leader via more violent ways such as reshuffling coups. Moreover, as we expected this effect depends on the existing level of personalism, the legislatures only help the ruling elite to make the leader more likely to commit the existing power-share agreements when the ruling elite has enough power at their hand to make threats of punishment credible. On the other hand, one should not overstate the effect of the legislature as it can be seen from the figure that there is a significant number of cases in our data that having a legislature does not make coup attempts significantly less likely than not having a legislature.



If we look at the effect of legislation on regime change coups depending on the level of personalism, it is clear from figure 5 that the probability of regime change coups does not differ significantly between the cases with and without legislation. Furthermore, the effect of level of personalism does not differ substantively the regime change coups if there is not legislation. However, when there is legislation in the country with the mean level

of personalism(0.42), an increase and a decrease of one standard deviation within the regimes, 2(+/- 2) percent, respectively, decreases and increases the probability of regime change coups.

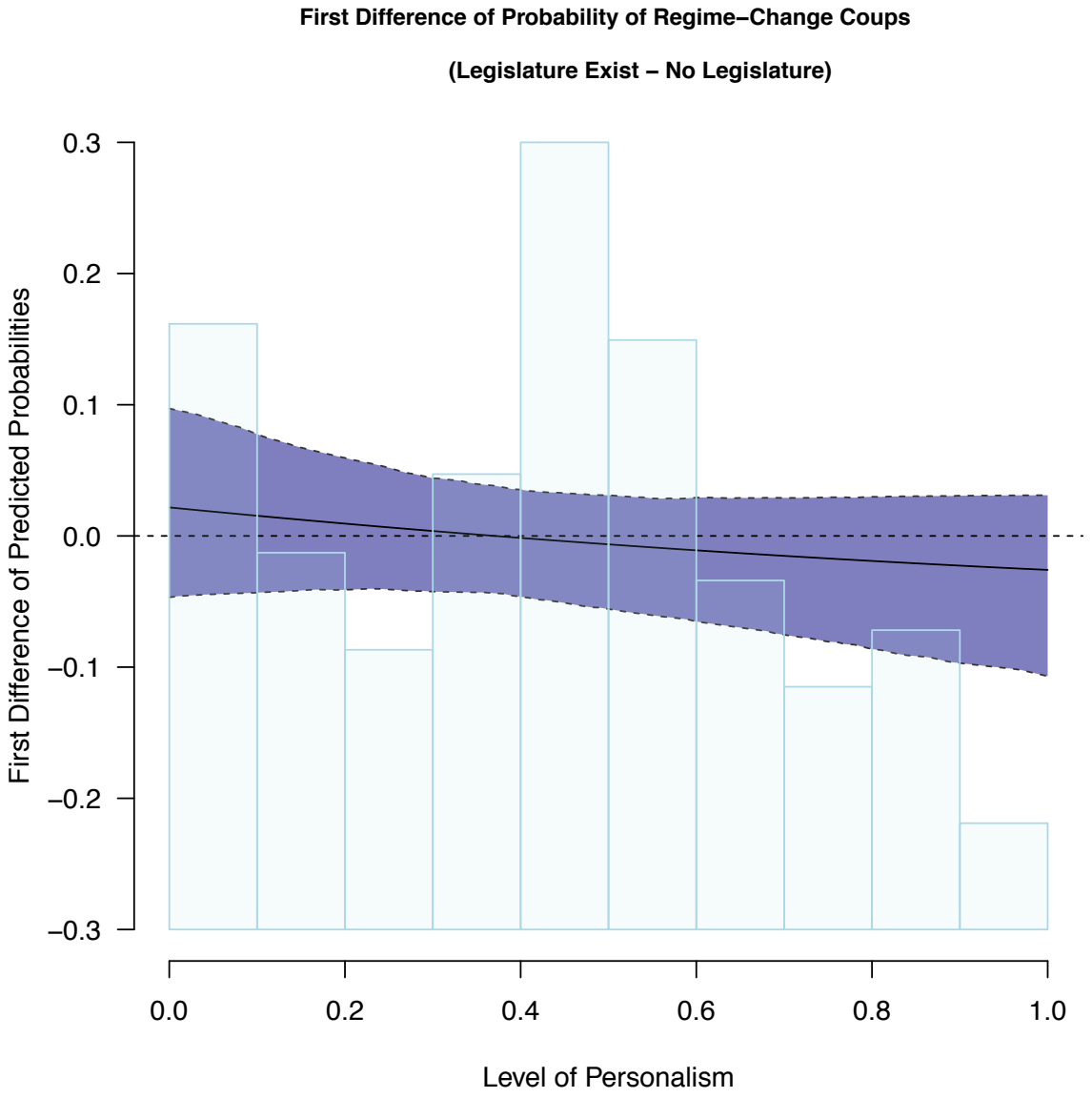


Figure 6: First Difference in Predicted Probabilities of Regime-Change Coups (Legislature - No Legislature)

Figure 6 shows the difference in the predicted probabilities in case of regime change coups. When compared to the previous plot, the importance of differentiating between the different types of coups can be seen from this figure. As it can be seen and in line with our expectations, neither the existing level of personalism nor the existence of a legislative in

a country-year significantly affects the predicted probability of regime change coups. This supports our argument that the existing institutions cannot be compatible with the goals of coalition outsiders that are most likely to attempt a regime change coup. Institutions such as legislatures cannot reduce the need of coalition outsiders to resort to violent ways such as coups to reach their goals by providing alternative mechanisms. In addition, as a result, that cannot be seen in this figure.

To sum up, it is clear from the results of our simulations that legislatures reduce the predicted probability of reshuffling coups. This, however, depends on the existing level of personalism in the country. On the other hand, institutions such as legislatures cannot reduce the need for coalition outsiders to resort to regime change coups. Finally, a comparison of the figures also shows that treating different coup types as the same can lead to misinterpretation of reality.

Robustness Checks

To see our results are robust and they are not entirely on the data we have and the our model choice, we firstly look at different model specifications.Our results are similar and effect of our main independent variables are statistically significant if we use classical logit model(Appendix A4) and rare event logit model(Appendix A6) without fixed effects.We do not use fixed effects for these models since taking into account both country and year fixed effects results in separation problem for the our rare event data.However, our results are also similar if we use multilevel logit model(Appendix A5) with country varying intercepts.Lastly our results are robust if we only use our main independent variables without any controls to check whether our findings are because of supression effect(Lenz and Sahn, 2020).

To check our results dependent on our choice of dataset,we firstly check the results by omitting first two years of the regime spell(Appendix A9) .By looking at regime years after the two years of the establishment, we control that the effect of personalism on legislatures are not mainly driven by the weakness of the regimes in the first years and this effect is not specific to the first years of the regimes.Secondly, we use cross validation(Appendix

A10).Our results are robust for these two checks.

Lastly,we look at the predictive power of our main model and compare it with other possible models .Firstly,our penalized two way fixed effect model yields better results in the AUC scores for the ROC curves than the logit without fixed effect models(Appendix A12).Furthermore, our model yields better predictions according the results of separation plots than other model specifications.(Appendix A15-A16).Addition of level of personalism variable , its interaction with legislature and lastly using fixed both country and year fixed effect lead us to have less false positives and to predict more accurately the events of coups.We,finally, use heatmap plots(Appendix A13-A14) to "examine how closely a model's predicted probabilities match the observed frequency of events in the data set, and whether these deviations are systematic or merely noise"(Esarey % Pierce, 2012,p 480).Among the models for the regime shuffling coups, our model has the least probability of model mispecification and it has the most the accurate predictive power.

Conclusion

There is a scholarly consensus in the literature on authoritarian regimes that institutions such as legislatures reduce the probability of coups attempts and thus increases the stability of authoritarian regimes. In this paper, however, we show that this may not be fully capture the reality. Even though, differentiating between different types of coups is an improvement from the past (Kim & Sudduth, 2021), this still only help us to explain the part of the reality. As we show in this paper, we also need to differentiate between the level of personalism within and among different authoritarian regimes. The effectiveness of the institutions to reduce the probability of types of coups crucially depends on both the existing personalism level and the fundamentally different aims of the different coup plotters. Our findings show that legislatures are effective at reducing the probability of reshuffling coups when personalism level is low. The most likely plotters of reshuffling coups, ruling coalition insiders, have already a stake in the regime and their primary goal with attempting a reshuffling coup is to punish the opportunistic leader which try to grab power in expense of the these elites. When the power-share between the leader and the

elites are more balanced, when level of personalism is low, legislatures provide alternative ways for the ruling elite to make the leader credibly commit to the existing power share agreements. Thus, legislatures reduce the reshuffling coups which are extreme ways to the same goal of constraining the opportunistic leader. Furthermore, our findings show that legislatures are not as effective to reduce the probability of regime-change coup attempts, whatever the level of personalism is. The goals of mostly likely plotters of the regime-change coups and their goal of changing the regime and the ruling elite is fundamentally incompatible with the existing institutions of the regime such as legislatures which in essence increase the stability of the regime by institutionalizing the interactions between the leader and ruling elites.

We tried to address a gap in the literature on the importance of differentiating between effectiveness of institutions between the different authoritarian regimes or different years under the same regime. Our differentiation between the effectiveness of different legislatures to reduce the probability of coups by looking in to the level of personalism clearly improve our understanding of when and why some leaders are more successful to avoid a fate of a coup. Further research should focus on finding better or meaningful characteristics to differentiate among authoritarian regimes as well as their institutions. Understanding these differences are crucial to understand the different outcomes that they lead.

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Appendix

A1

Summary Statistics

	Obs.	Mean	Std.Dev.	Min	Max	Median
Any coup attempt	4587	0.065	0.246	0.000	1.000	0.000
Reshuffling coup attempt	4587	0.042	0.201	0.000	1.000	0.000
Regime-change coup attempt	4587	0.026	0.158	0.000	1.000	0.000
Legislature	4587	0.784	0.412	0.000	1.000	1.000
Personalism	4587	0.420	0.277	0.000	1.000	0.429
Military leader	4587	0.345	0.475	0.000	1.000	0.000
ln(GDP/capita)	3598	10.122	1.661	5.803	16.268	9.966
Economic Growth	3540	0.047	0.105	-0.689	2.055	0.047
ln(Population)	3598	2.222	1.392	-1.290	7.196	2.173
Post-Cold War	4587	0.284	0.451	0.000	1.000	0.000

A2 (Main Results and Main Models(4 and 6) in the Article)

Table 1: Coefficient Table for Main Models (Penalized Logit with Fixed Effects)

	Dependent variable:					
	All Coup Attempts		Reshuffle Coup Attempts		Regime-Change Coup Attempts	
	(1)	(2)	(3)	(4)	(5)	(6)
Legislature	−0.423**	−0.616**	−0.776***	−1.358***	−0.137	0.180
	(0.185)	(0.309)	(0.247)	(0.408)	(0.220)	(0.377)
Personalism		−1.493***		−2.763***		−0.612
		(0.545)		(0.794)		(0.646)
Military Leader	−0.092	−0.072	0.594*	0.667**	−0.444*	−0.359
	(0.217)	(0.222)	(0.313)	(0.329)	(0.243)	(0.247)
Ln(GDP/capita)	0.082	−0.047	0.476*	0.257	−0.214	−0.287
	(0.224)	(0.227)	(0.286)	(0.292)	(0.262)	(0.261)
Lagged Economic Growth	−1.585**	−1.557**	−1.252	−1.115	−1.303	−1.440*
	(0.768)	(0.773)	(1.050)	(1.068)	(0.844)	(0.850)
Log(Population)	−0.125	0.027	0.588	1.001	−0.160	0.106
	(0.951)	(0.959)	(1.222)	(1.246)	(1.003)	(1.011)
Post Cold War	−1.404	−1.465	−1.093	−1.052	−1.548	−1.808
	(1.790)	(1.797)	(2.602)	(2.682)	(1.840)	(1.853)
Country Fixed Effects	+	+	+	+	+	+
Year Fixed Effects	+	+	+	+	+	+
Legislature:Personalism		0.872		2.354***		−0.452
		(0.621)		(0.902)		(0.730)
Intercept	−1.257	0.236	−7.714**	−5.843*	1.728	2.374
	(2.117)	(2.161)	(3.029)	(3.147)	(2.354)	(2.391)
Observations	3,540	3,540	3,540	3,540	3,540	3,540
Log Likelihood	−691.423	−686.993	−345.270	−339.315	−486.625	−484.273
Akaike Inf. Crit.	1,720.847	1,715.987	1,028.540	1,020.631	1,311.251	1,310.546

Note: *p<0.1; **p<0.05; ***p<0.01

A3

Table 2: Coefficient Table for Main Models with Robust Standard Errors(Penalized Logit with Fixed Effects)

	Dependent variable:	
	Reshuffle Coup Attempts	Regime-Change Coup Attempts
	(1)	(2)
Legislature	-1.358^{***}	0.180
	(0.348)	(0.300)
Personalism	-2.763^{***}	-0.612
	(0.661)	(0.525)
Military Leader	0.667^{**}	-0.359
	(0.241)	(0.229)
Ln(GDP/capita)	0.257	-0.287
	(0.185)	(0.177)
Lagged Economic Growth	-1.115	-1.440^{*}
	(0.571)	(0.575)
Log(Population)	1.001	0.106
	(0.640)	(0.769)
Post Cold War	-1.052	-1.808
	(0.929)	(1.381)
Country Fixed Effects	+	+
Year Fixed Effects	+	+
Legislature:Personalism	2.354^{***}	-0.452
	(0.739)	(0.580)
Intercept	-5.843^{*}	2.374
	(1.539)	(1.675)
Observations	3,540	3,540
Log Likelihood	-339.315	-484.273
Akaike Inf. Crit.	1,020.631	1,310.546
Note:		*p<0.1; **p<0.05; ***p<0.01

A4

Table 3: Coefficient Table for Baseline Models (Logit Models without Fixed Effects)

	Dependent variable:					
	All Coup Attempts		Reshuffle Coup Attempts		Regime-Change Coup Attempts	
	(1)	(2)	(3)	(4)	(5)	(6)
Legislature	−0.142	−0.603**	−0.564**	−0.952***	0.051	−0.130
	(0.167)	(0.267)	(0.224)	(0.341)	(0.225)	(0.373)
Personalism		−1.527***		−3.058***		−0.172
		(0.492)		(0.723)		(0.630)
Military Leader	0.539***	0.517***	1.710***	1.705***	0.016	−0.007
	(0.159)	(0.162)	(0.283)	(0.289)	(0.197)	(0.200)
Ln(GDP/capita)	−0.188**	−0.228**	−0.020	−0.129	−0.327***	−0.328***
	(0.088)	(0.090)	(0.124)	(0.134)	(0.116)	(0.116)
Lagged Economic Growth	−1.001	−1.061	−1.151	−1.539	−1.137	−1.131
	(0.749)	(0.761)	(1.162)	(1.248)	(0.936)	(0.935)
Log(Population)	0.132	0.161	−0.035	0.043	0.248*	0.246*
	(0.101)	(0.103)	(0.148)	(0.160)	(0.130)	(0.131)
Post Cold War	−0.472**	−0.449**	−0.553*	−0.450	−0.419*	−0.433*
	(0.185)	(0.187)	(0.307)	(0.311)	(0.228)	(0.230)
Time Since Last Coup	−0.206***	−0.186***				
	(0.044)	(0.044)				
Time Since Last Coup^2	0.010***	0.008***				
	(0.003)	(0.003)				
Time Since Last Coup^3	−0.0001**	−0.0001**				
	(0.0001)	(0.0001)				
Legislature:Personalism		1.436**		2.085**		0.420
		(0.585)		(0.878)		(0.742)
Time Since Last Reshuffling Coup			−0.131**	−0.096*		
			(0.055)	(0.055)		
Time Since Last Reshuffling Coup^2			0.006*	0.004		
			(0.003)	(0.003)		
Time Since Last Reshuffling Coup^3			−0.0001	−0.0001		
			(0.0001)	(0.00005)		
Time Since Last Regime-Change Coup					−0.242***	−0.243***
					(0.054)	(0.054)
Time Since Last Regime-Change Coup^2					0.012***	0.012***
					(0.004)	(0.004)
Time Since Last Regime-Change Coup^3					−0.0002***	−0.0002***
					(0.0001)	(0.0001)
Intercept	−0.191	0.582	−3.063***	−1.519	0.711	0.805
	(0.711)	(0.756)	(1.071)	(1.158)	(0.917)	(0.967)
Observations	3,540	3,540	3,540	3,540	3,540	3,540
Log Likelihood	−778.601	−773.437	−399.153	−386.732	−555.215	−554.977
Akaike Inf. Crit.	1,577.203	1,570.875	818.306	797.464	1,130.430	1,133.954

Note: *p<0.1; **p<0.05; ***p<0.01

A5

Table 4: Coefficient Table for Mixed Level Models (Different Model Specifications)

	Dependent variable:	
	Reshuffling Coup Attempts	Regime-Change Coup Attempts
	(1)	(2)
Legislature	-1.003^{***}	-0.130
	(0.362)	(0.373)
Personalism	-3.131^{***}	-0.172
	(0.759)	(0.630)
Military Leader	1.644^{***}	-0.007
	(0.300)	(0.200)
Ln(GDP/capita)	-0.189	-0.328^{***}
	(0.149)	(0.116)
Lagged Economic Growth	-1.514	-1.131
	(1.282)	(0.935)
Log(Population)	0.102	0.246^{*}
	(0.178)	(0.131)
Post Cold War	-0.421	-0.433^{*}
	(0.317)	(0.230)
Time Since Last Reshuffling Coup	-0.073	
	(0.056)	
Time Since Last Reshuffling Coup^2	0.004	
	(0.003)	
Time Since Last Reshuffling Coup^3	-0.0001	
	(0.0001)	
Time Since Last Regime-Change Coup		-0.243^{***}
		(0.054)
Time Since Last Regime-Change Coup^2		0.012^{***}
		(0.004)
Time Since Last Regime-Change Coup^3		-0.0002^{***}
		(0.0001)
Legislature:Personalism	2.179^{**}	0.420
	(0.911)	(0.742)
Intercept	-1.192	0.805
	(1.267)	(0.967)
Observations	3,540	3,540
Log Likelihood	-385.389	-554.977
Akaike Inf. Crit.	796.779	1,135.954
Bayesian Inf. Crit.	877.013	1,216.189
Note:		*p<0.1; **p<0.05; ***p<0.01

A6

Table 5: Coefficient Table for Rare Event Logit Models (Different Model Specifications)

	Dependent variable:	
	Reshuffling Coup Attempts	Regime-Change Coup Attempts
	(1)	(2)
Legislature	-1.013^{***}	-0.549
	(0.338)	(0.362)
Personalism	-3.109^{***}	-0.500
	(0.717)	(0.627)
Military Leader	1.731^{***}	0.048
	(0.288)	(0.196)
Ln(GDP/capita)	-0.106	-0.460^{***}
	(0.129)	(0.107)
Lagged Economic Growth	-1.885	-1.411
	(1.249)	(0.931)
Log(Population	0.009	0.317^{***}
	(0.157)	(0.122)
Post Cold War	-0.543^{*}	-0.614^{***}
	(0.295)	(0.223)
Legislature:Personalism	1.984^{**}	0.613
	(0.868)	(0.736)
Intercept	-2.023^{*}	1.324
	(1.102)	(0.912)
Observations	3,540	3,540
Log Likelihood	-389.725	-576.362
Akaike Inf. Crit.	797.450	1,170.725
Note:		*p<0.1; **p<0.05; ***p<0.01

A7

Table 6: Coefficient Table for Models with No Controls or Fixed Effects (Penalized Logit

	Dependent variable:	
	Reshuffling Coup Attempts	Regime-Change Coup Attempts
	(1)	(2)
Legislature	-2.292^{***}	-0.691^{**}
	(0.297)	(0.279)
Personalism	-3.934^{***}	-0.363
	(0.669)	(0.507)
Legislature:Personalism	3.413^{***}	0.373
	(0.821)	(0.597)
Intercept	-1.606^{***}	-2.573^{***}
	(0.191)	(0.227)
Observations	4,587	4,587
Log Likelihood	−496.991	−794.675
Akaike Inf. Crit.	1,001.982	1,597.350
Note:		*p<0.1; **p<0.05; ***p<0.01

A8

Table 7: Coefficient Table for Models with Coup Success as Dependent Variable

	Dependent variable:	
	Reshuffling Coup Success	Regime-Change Coup Success
	(1)	(2)
Legislature	-1.752^{***}	-0.354
	(0.476)	(0.459)
Personalism	-3.179^{***}	-1.575^{*}
	(0.939)	(0.883)
Military Leader	0.806^{**}	-1.156^{***}
	(0.391)	(0.306)
Ln(GDP/capita)	0.222	-0.049
	(0.329)	(0.325)
Lagged Economic Growth	-0.003	-1.758^{*}
	(1.109)	(1.062)
Log(Population)	-0.024	-1.697
	(1.211)	(1.089)
Post Cold War	-0.013	0.253
	(2.560)	(2.172)
Country Fixed Effects	+	+
Year Fixed Effects	+	+
Legislature:Personalism	2.866^{***}	0.950
	(1.069)	(0.972)
Intercept	-4.925	2.085
	(3.496)	(2.847)
Observations	3,540	3,540
Log Likelihood	-219.528	-288.731
Akaike Inf. Crit.	781.057	919.462
Note:		*p<0.1; **p<0.05; ***p<0.01

A9

Table 8: Coefficient Table for Main models when Leaders First Two Years Dropped

	Dependent variable:	
	Reshuffling Coup Attempts	Regime-Change Coup Attempts
	(1)	(2)
Legislature	-2.159^{***}	1.857^{***}
	(0.606)	(0.698)
Personalism	-3.160^{***}	0.092
	(1.045)	(1.146)
Military Leader	1.050^{***}	-0.113
	(0.387)	(0.315)
Ln(GDP/capita)	-0.291	-0.773^{**}
	(0.332)	(0.312)
Lagged Economic Growth	0.131	-0.983
	(1.168)	(1.013)
Log(Population)	-1.942	-2.442^{*}
	(1.288)	(1.260)
Post Cold War	3.496	2.562
	(2.747)	(2.436)
Country Fixed Effects	+	+
Year Fixed Effects	+	+
Legislature:Personalism	3.691^{***}	-1.187
	(1.173)	(1.215)
Intercept	1.730	6.550^{**}
	(3.584)	(3.119)
Observations	2,871	2,871
Log Likelihood	-216.343	-318.458
Akaike Inf. Crit.	774.687	978.916
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 9: Cross Validation Results For Reshuffling Coups

	Estimate	Std. Error	CrossVal Comb ES	CrosVal Comb SE
Intercept	-5.843	1.539	-4.400	3.651
Legislature	-1.358	0.349	-1.412	0.535
Personalism	-2.763	0.662	-3.020	1.052
Military Leader	0.667	0.242	0.615	0.518
GDPpc	0.257	0.186	0.190	0.315
GDP Growth	-1.115	0.572	-0.841	0.884
Population	1.001	0.641	0.803	1.463
Post Cold War	-1.052	0.929	-0.908	2.210
Legislature:Personalism	2.354	0.740	2.455	1.063

A10

Table 10: Cross Validation Results For Regime-Change Coups

	Estimate	Std. Error	CrossVal Comb ES	CrossVal Comb SE
Intercept	2.374	1.676	1.301	2.415
Legislature	0.180	0.300	0.149	0.447
Personalism	-0.612	0.526	-0.566	0.802
Military Leader	-0.359	0.230	-0.299	0.332
GDPpc	-0.287	0.177	-0.195	0.304
GDP Growth	-1.440	0.576	-1.301	1.032
Population	0.106	0.770	0.229	1.307
Post Cold War	-1.808	1.381	-1.860	1.978
Legislature:Personalism	-0.452	0.581	-0.379	0.861

A11

A12

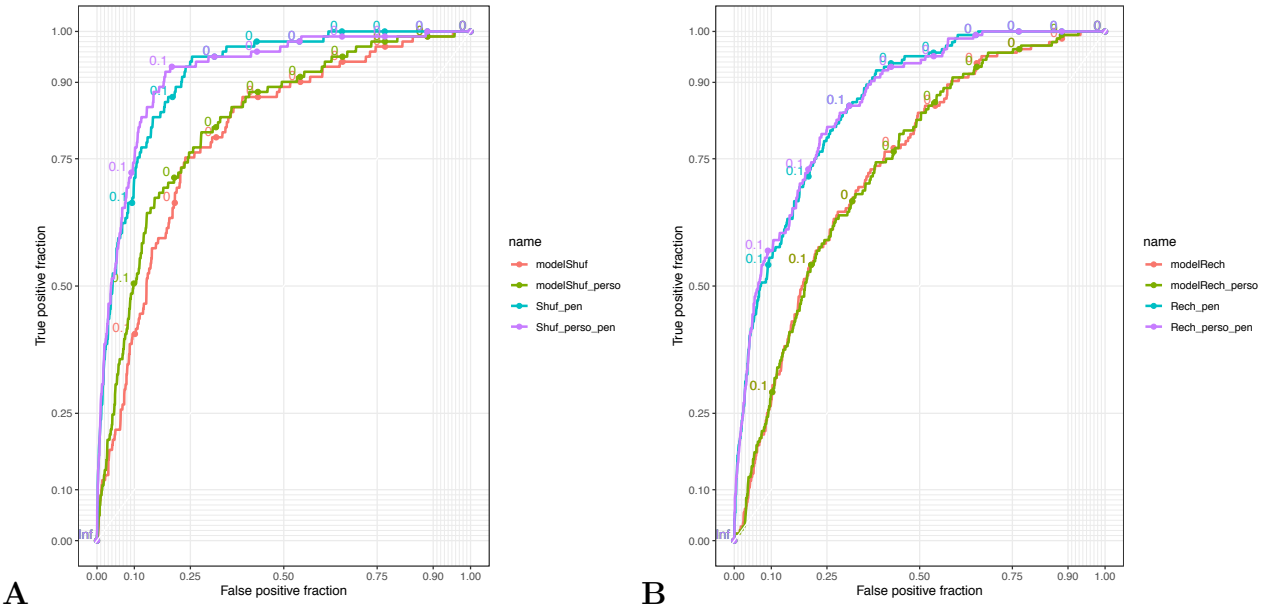

Figure 7: **ROC Curves for Reshuffling Coup and Regime Change Coup Models.** **A** Reshuffling Coups **B** Regime-Change Coups. **In both graphs purple Line shows penalized logit model with fixed effects and personalism interaction (Our Main Models)**

A13

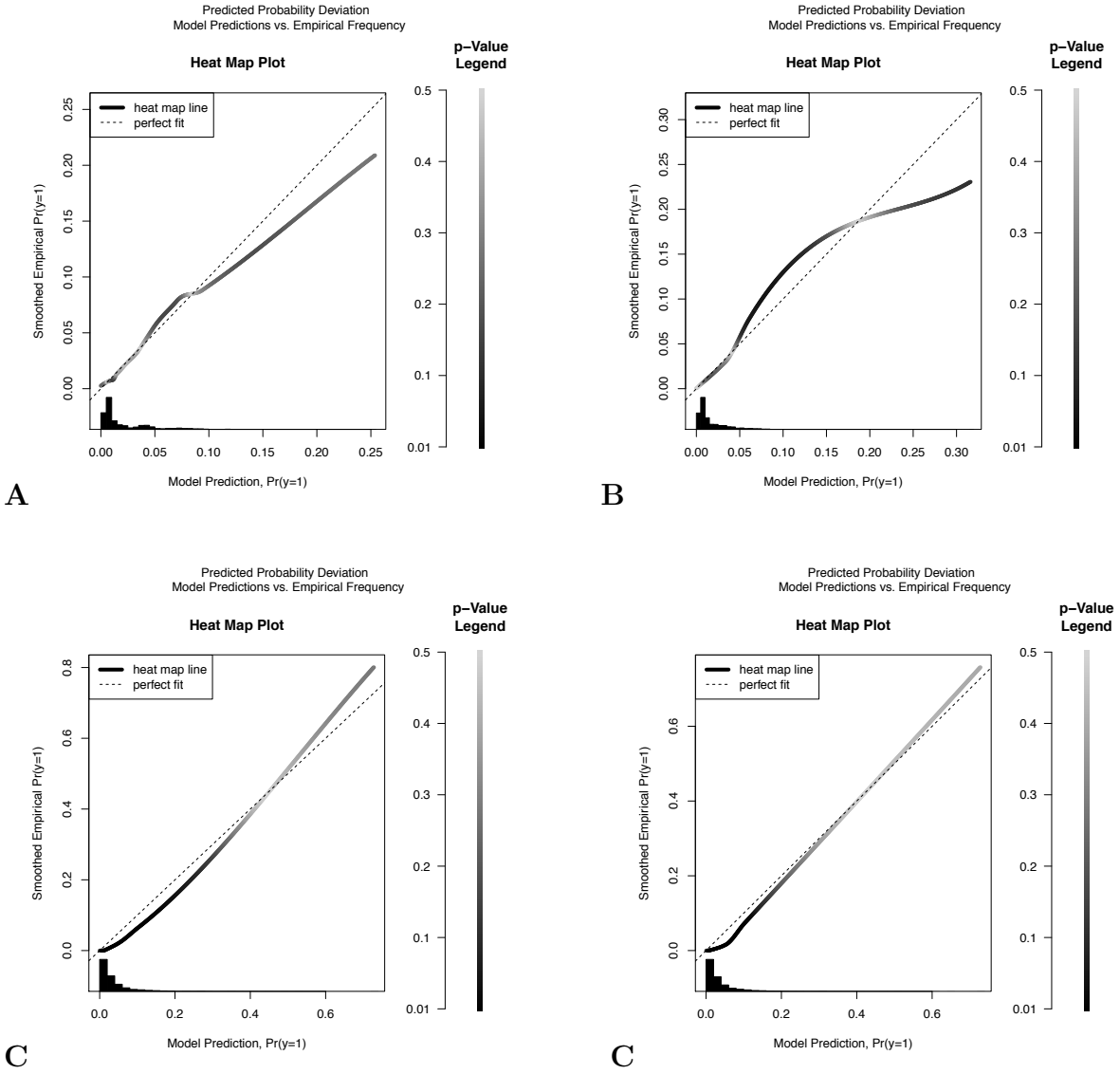

Figure 8: **Heatmaps for Reshuffling Coup Models A.** Logit Model without fixed effects **B.** Logit Model with personalism interaction without fixed effects **C.** Penalized Logit Model including fixed effects **D.** Penalized Logit Model including fixed effects and personalism interaction (Our Main Model)

A14

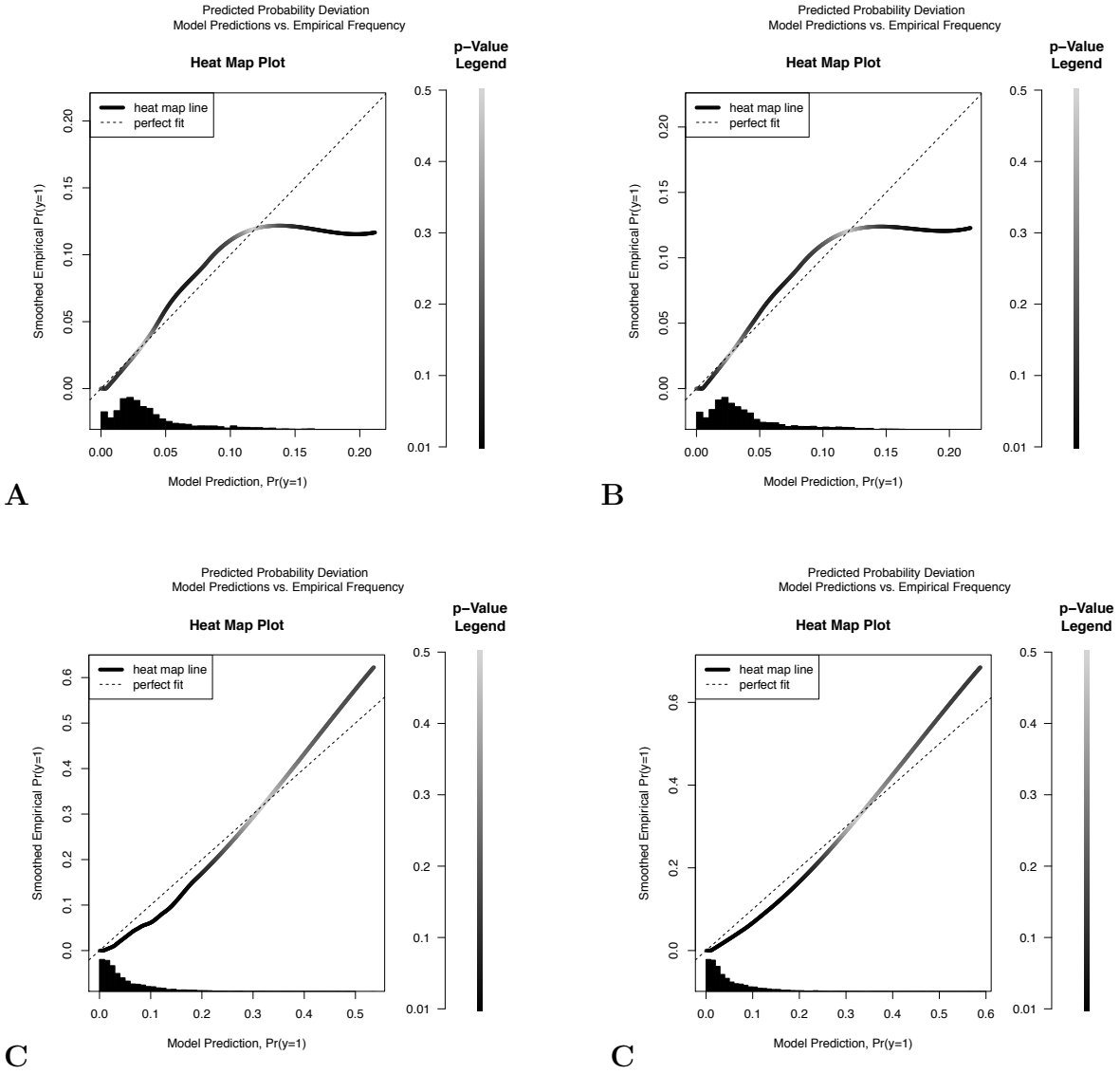

Figure 9: **Heatmaps for Regime-Change Coup Models A.** Logit Model without fixed effects **B.** Logit Model with personalism interaction without fixed effects **C.** Penalized Logit Model including fixed effects **D.** Penalized Logit Model including fixed effects and personalism interaction (Our Main Model)

A15

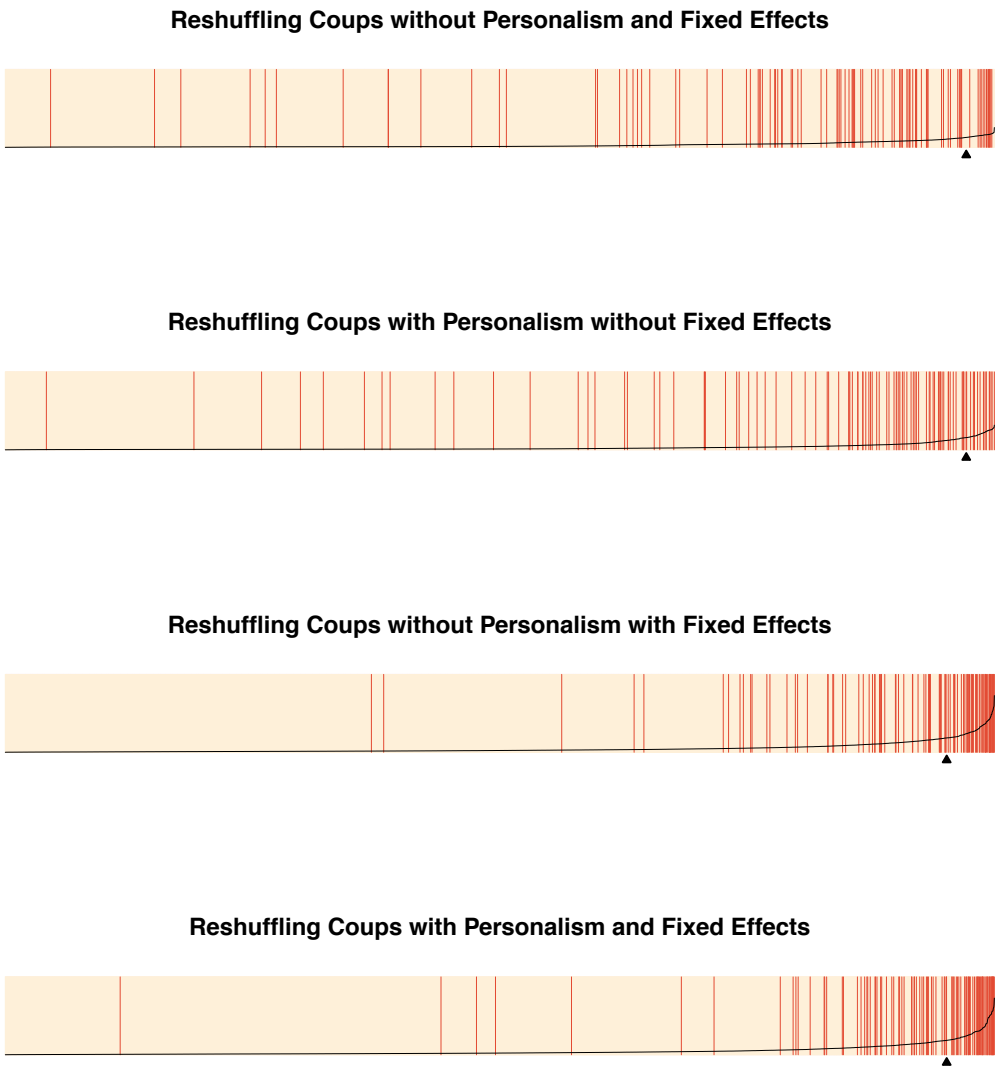

Figure 10: Effect of Level of Personalism on Reshuffling Coups with and without Existence of a Legislature

A16

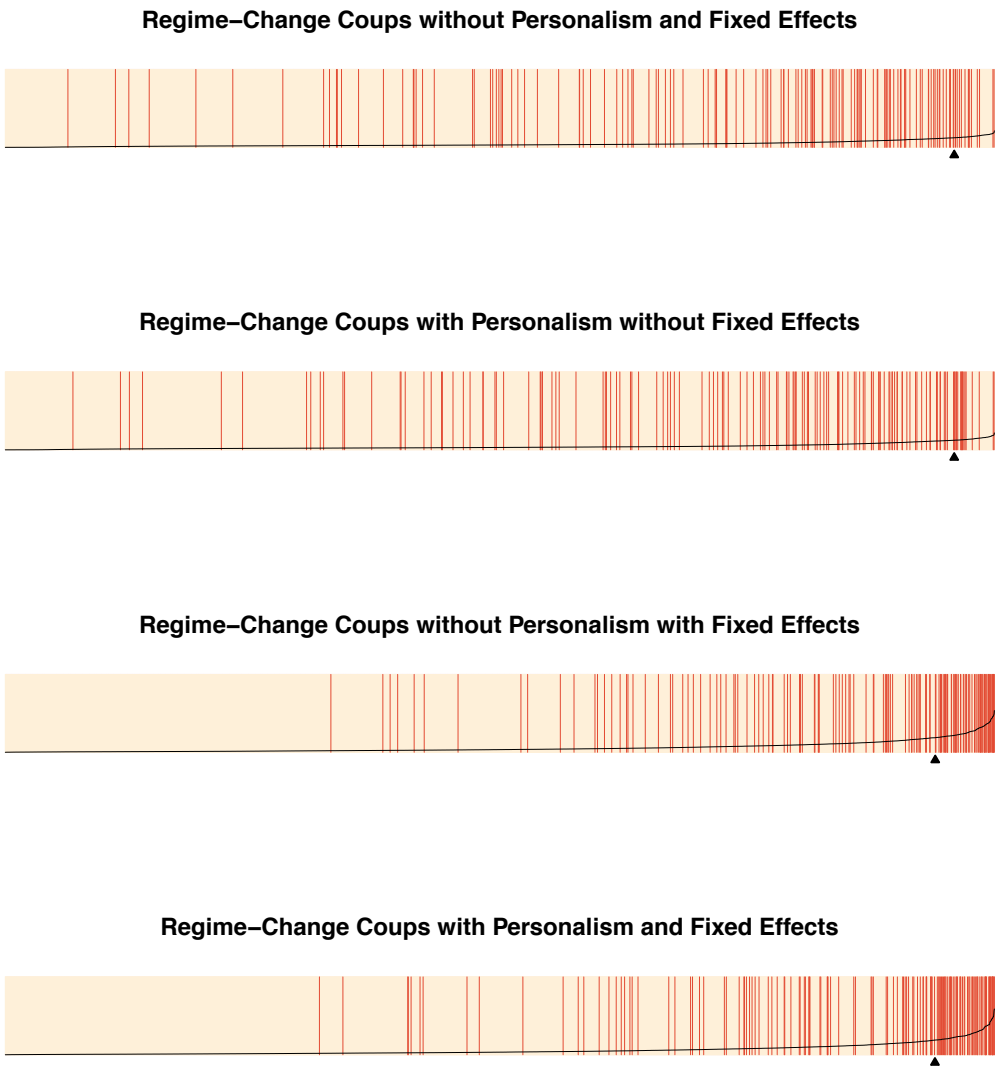

Figure 11: Effect of Level of Personalism on Reshuffling Coups with and without Existence of a Legislature

Statutory Declaration

Students shall include a bibliography in all their term papers and project-related papers and submit a signed declaration with the following wording:

> „I hereby declare that the paper presented is my own work and that I have not called upon the help of a third party. In addition, I affirm that neither I nor anybody else has submitted this paper or parts of it to obtain credits elsewhere before. I have clearly marked and acknowledged all quotations or references that have been taken from the works of other. All secondary literature and other sources are marked and listed in the bibliography. The same applies to all charts, diagrams and illustrations as well as to all Internet sources. Moreover, I consent to my paper being electronically stores and sent anonymously in order to be checked for plagiarism. I am aware that the paper cannot be evaluated and may be graded "failed" ("nicht ausreichend") if the declaration is not made."

For term papers and project-related papers in English, the English declaration shall be included as well.

Kerem Lütfi Cerit

Mannheim 23.06.2021

Place, Date

Signature

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Students shall include a bibliography in all their term papers and project-related papers and submit a signed declaration with the following wording:

> „I hereby declare that the paper presented is my own work and that I have not called upon the help of a third party. In addition, I affirm that neither I nor anybody else has submitted this paper or parts of it to obtain credits elsewhere before. I have clearly marked and acknowledged all quotations or references that have been taken from the works of other. All secondary literature and other sources are marked and listed in the bibliography. The same applies to all charts, diagrams and illustrations as well as to all Internet sources. Moreover, I consent to my paper being electronically stores and sent anonymously in order to be checked for plagiarism. I am aware that the paper cannot be evaluated and may be graded "failed" ("nicht ausreichend") if the declaration is not made."

For term papers and project-related papers in English, the English declaration shall be included as well.

Mannheim 06.23.2027
Place, Date

Sefa Sahin
Signature