Are coups good for democracy? A response to Miller (2016)

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Abstract

This article responds to "Reanalysis: Are coups good for democracy?" (Miller MK (2016) Reanalysis: Are coups good for democracy? *Research and Politics* 3(4):) We make clear to readers that Miller (2016) re-reports findings that we originally reported in the Appendix to our original article. We then discuss the advantages and disadvantages of different estimators and re-state Miller's main point with a visual presentation of how regime-case and country fixed effects estimators differ in this application.

Introduction

In "Are coups good for democracy?" (Derpanopoulos et al., 2016), we look at the political consequences of coups in autocracies. We find that, though democracies are sometimes established in the wake of coups, more often new authoritarian regimes emerge. Further, we show that coups frequently increase state-led violence, particularly following coups that lead to new autocratic regimes.

In a recent critique of our study, Miller (2016) challenges one particular finding: that coups rarely lead to democratization. He argues that our use of a regime-case fixed-effects (FE) model to estimate the impact of coups on the likelihood of transitions to democracy drops a number of key observations from the sample, biasing our estimates. He emphasizes that when a country FE model is used instead, there is a positive relationship.

In our original analysis, we find that there is no association between post-Cold War coups and democratization in a regime-case FE model, but show in the online appendix to our published results (Figure A-2) that there is a positive association between post-Cold War coups and democratic transition when using a country FE model.[1] Miller (2016) re-reports and expands on the country FE model of democratic transitions that we report in the appendix to our original analysis. In fact, the conclusions of Miller (2016) are identical to those drawn from one set of tests we report in the original appendix. We thank the

editors of *Research and Politics*, however, for allowing us to further the discussion of the points articulated in Miller (2016).

In the analysis that follows, we first offer background on the key issues that underlie Miller's critique. We then re-state Miller's critique in a slightly different way and demonstrate visually the differences between regime-case and country FE models in this application. In doing so, we focus on the post-Cold War period because Miller's only point of disagreement about the consequences of coups pertains to the relationship between post-1989 coups and democratic transition.

Background

Miller's (2016) main argument is that a country FE estimator is preferable to a regime-case FE estimator when modeling the effect of coups on the chance of democratic

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transition. Yet, all modeling choices have advantages and disadvantages, and the "optimal" approach is up to scholars to assess. It is for this reason that we presented the results of both in our study (the regime-case FE model in the main text and the country FE model in the appendix). Here, however, we provide a more in-depth discussion of the logic underlying both approaches and their strengths and drawbacks in light of the Miller (2016) critique.

A FE estimator isolates the over-time variation in the data, allowing inferences that are not contaminated by unobserved unit (or cross-sectional) heterogeneity. When estimating FE models, researchers must determine the cross-sectional unit over which to isolate the time trends. In our original paper, we reported results from two sets of models that make different assumptions about the appropriate cross-sectional unit: the country and the regime-case.

A country FE model isolates variation over time within countries; that is, it uses information about movement over time in the independent and dependent variables to identify the estimated parameter of interest (in this application, the marginal effect of a *recent coup* on the probability of transition to a new autocratic regime or to democracy). This approach accounts for time-invariant heterogeneity across countries, such as colonial history and geographic endowments. When a country contains more than one autocratic regime – for example in the Democratic Republic of Congo (DRC), Guinea, or Thailand – a country FE estimator compares periods of *no recent coup* with periods of *recent coup* within the same country to inform an estimate of how recent coups influence regime instability.

In this application, a regime-case represents a continuous spell of years under the rule of a single autocratic regime. In some instances, regime-cases are preceded and succeeded by periods of democratic rule. For example, coups in Thailand upended democracy in 1991, 2006, and 2014, each time ushering in a new autocratic regime. In other instances, we see successive autocratic regime-cases during the period of analysis. Examples include the DRC (former Zaire), where a rebellion led by Laurent Kabila toppled the long-standing Mobutu regime in 1997, and Guinea, where a junior officer coup led by Dadis Camara ousted the Conté regime in 2008.

A regime-case FE model therefore enables a within-regime comparison of what follows a coup, while conditioning out all differences between autocratic regimes (e.g. level of development, how the regime seized power, the types of leaders the regime selects to rule). Thus, periods of *no recent coup* are compared with periods of *recent coup* within the same regime-case. Critically, this approach takes into account autocratic regime type, such as whether the incumbent regime is ruled by the military. This is crucial because of strong empirical evidence that coups are more frequent in military dictatorships and that military dictatorships are more likely, all else equal, to democratize (Geddes et al., 2014).

Employing a regime-case fixed effects estimator implies that: (1) the baseline likelihood of a democratic transition and coup varies by the regime as well as by country; and (2) short-lived regimes may not have sufficient variation in the key explanatory variable (*recent coup*) to inform the estimated parameter of interest. In this application, the latter feature of the regime-case fixed effect estimator has the effect, as Miller (2016: 2) notes, of "effectively remov[ing] most recent coups from the sample." While Miller focuses on the fact that the regime-case FE estimator drops some cases where the short-lived autocratic regime is always in a state of having had a recent coup, the substantive benefit of this design choice is that the baseline likelihoods of democratization and coups are not constrained to be the same for all regimes within the same country.[2]

The issue that Miller raises regarding the bias of the regime-case FE modeling approach is largely not present when employing a country FE estimator in this application because, when there are multiple regimes within the post-Cold War period, at least one of them has a period where the *recent coup* indicator is equal to 0.[3] There are, therefore, trade-offs in choosing between regime-case FE and country FE estimators. Our published analysis included both types of tests for interested readers to compare the differing results for democratic transition.

## Re-stating the Miller (2016) critique

One way to summarize the Miller (2016) critique is as follows: in some short-lived autocracies, the main explanatory variable (*recent coup*) does not vary over time within the regime-case. For example, if a coup occurs in time $t-2$ but the regime only lasts one year, then *recent coup* will have a value of 1 for the entire period of regime rule. A regime-case FE estimator does not draw support from these cases to estimate the parameter of interest because it isolates the "within" variation, and these regimes have no "within-case" variation in the *recent coup* indicator.

Consider a second way to illustrate the same point in a model specification that separates the "within" and "between" variation in the explanatory variables[4]

$$Pr(Y_{i,t} = 1 \mid Y_{i,t-1} = 0) = \alpha_0 + \beta_1(X_{i,t} - \bar{X}_i) \\ + \beta_2 \bar{X}_i + \beta_3 \bar{Y}_i + \beta_4 \vartheta_t + \epsilon_{i,t} \tag{1}$$

In this equation, $\bar{X}_i$ is the mean value of the main explanatory variable and i can be either the country or the regime-case. Thus $X_{i,t} - \bar{X}_i$ is the deviation from the unit mean (i.e. the "within" variation) and $\bar{X}_i$ is the unit mean (i.e. the "between" variation). In our application, the parameter of interest is β_1, which is the estimate of the marginal effect of *recent coup* ($X_{i,t} - \bar{X}_i$) on the probability of democratic transition.

The concern that Miller raises with respect to fixed effects models can be illustrated by noting that, for cases in
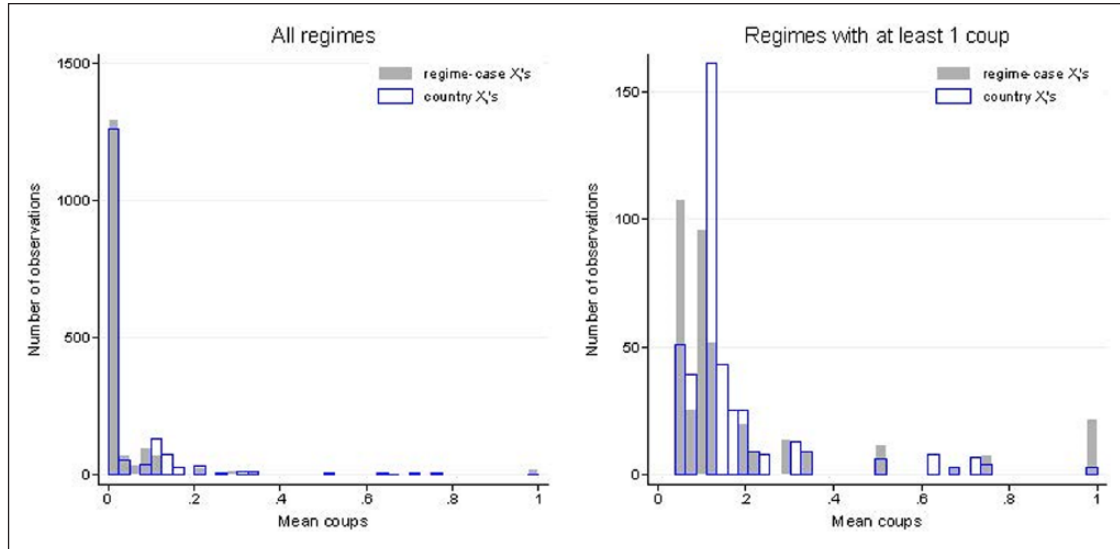
Figure 1. Country means and regime-case means for successful coups, 1990–2015.

which there is no "within" variation – those where the regime is always in a state of *recent coup* – the mean level of coups, $\bar{X}_i$ is 1. Thus $X_{i,t}=1$ for all t and $\bar{X}_i=1$, while $X_{i,t} - \bar{X}_i=0$ in these cases.

Note that, if there is more than one autocratic regime per country, then $\bar{X}_{i \equiv \text{regime}}$ is not necessarily equal to $\bar{X}_{i \equiv \text{country}}$. Thus while the regime-case mean for *recent coup* may be 1, the country mean for the same variable may be less than 1.[5] Figure 1 shows the distribution of regime-case $\bar{X}_i$ s and country $\bar{X}_i$ s for the post-1989 sample. The left plot shows the entire sample, while the right plot shows only regimes with at least one successful coup during this period. The gray bars represent the regime-case $\bar{X}_i$ s for *recent coup*, while the un-shaded bars with blue outlines represent the country $\bar{X}_i$ s for *recent coup*. The right plot shows that there are substantially more regime-case $\bar{X}_i$ s equal to 1 than country $\bar{X}_i$ s. The regimes where the regime-case $\bar{X}_i$ s equal 1 are effectively dropped from the estimating sample for lack of within-case variation in the *recent coup* indicator.

Table 1 lists the 16 cases of short-lived autocratic regimes where the regime-case mean for *recent coup* is always equal to 1. Half of these cases, or eight in total, democratize after the regime collapses. Miller's argument is that the regime-case fixed effects model does not draw support from these sixteen cases to estimate the main parameter of interest. While we agree with Miller's larger point that regime-case FE in this application effectively remove short-lived regimes from the analysis, we note that many of these short-lived dictatorships dropped from the analysis are coded as dictatorships *precisely because a recent coup toppled an incumbent democracy*. The cases highlighted in gray are those in which the historical coup event that makes the indicator of *recent coup* equal to 1 is a coup that ended a democracy. One practical effect of using a regime-case estimator that does not draw support from

short-lived autocracies is that this approach does not count the "democratic reversal" coups in Table 1 as potential candidates for coups that enhance democracy.

More to Miller's point, there are four cases where recent coups in short-lived dictatorships are followed by democratic transition: Egypt 2011, Guinea-Bissau 2002, Haiti 1988, and Niger 2010. In a regime-case FE model, these cases do not inform the estimate of interest; however, in a country FE model they are included because the country $\bar{X}_i$ is less than 1. Thus the key difference, in this application, between a regime-case FE estimator and a country FE estimator, is that the latter allows those four 'positive' cases to inform the estimate of interest.

Remarks

We acknowledge that there are trade-offs in choosing between different estimators (regime-case FE and country FE in this application). In our original analysis, we reported the results from both FE estimators for both of our dependent variables: transition to democracy and transition to new autocracy. Results from both FE estimators yielded consistent results for coups and transitions to new autocratic regimes. This gives us confidence that these results are not dependent on the choice of cross-sectional 'unit'. The tests for transitions to democracy, however, were mixed.

The larger point of our original study and the main point we emphasize here is that coups in dictatorships increase the risk of a new autocracy taking power; indeed, most coups in dictatorships are followed by new autocratic regimes. This finding is not dependent on the time period under analysis (1950–1989 vs. 1990–2015). The (average) positive correlation between post-1989 coups and democratic transition is less robust than prior studies have suggested, as we showed in our replication of Thyne and Powell (2016).

Table 1. Coups in short-lived autocracies, 1990–2015.

Regime-case name	Years	Democratize	Recent coup	Recent coup
			Country $\bar{X}_i$	Regime-case $\bar{X}_i$
Egypt 11–12	2012	1	0.16	1
Egypt 13–NA	2014–2015	0	0.16	1
Guinea 08–10	2009–2010	0	0.14	1
Guinea Bissau 02–03	2003	1	0.31	1
Guinea Bissau 12–14	2013–2014	0	0.31	1
Haiti 88–90	1990	1	0.33	1
Ivory Coast 99–00	2000	0	0.14	1
Mali 12–13	2013	1	0.67	1
Mauritania 05–07	2006–2007	0	0.20	1
Niger 96–99	1997	0	0.71	1
Niger 09–10	2010	0	0.71	1
Niger 10–11	2011	1	0.71	1
Sierra Leone 97–98	1997–1998	1	0.63	1
Thailand 91–92	1992	1	1	1
Thailand 06–07	2007	1	1	1
Thailand 14–NA	2015	0	1	1

Gray shaded rows are regimes initiated by a *democratic reversal* coup.

We do not anticipate that our analysis will be the last word on this issue because our results – and all results using less than 30 years of data (post 1989) – are based on only a handful of instances when coups in dictatorships coincide with subsequent democratic transition. As more coups occur in the real world, additional data may alter our conclusions.

Therefore, we urge policy-makers to digest evidence for the "good coup" hypothesis with some skepticism. We also encourage researchers to dig deeper in terms of better understanding why some post-Cold War coups precipitate transitions to democracy, while other coups simply unleash new forms of authoritarianism, often accompanied by increased state-led violence (Derpanopoulos et al., 2016). Gaining a more solid grasp of why it is that coups can lead to such disparate outcomes seems like an important step for moving forward.

Declaration of conflicting interest

Funding

Supplementary material

The appendix (Table A-1) is available at: http://journals.sagepub.com/doi/suppl/10.1177/2053168017707355.

Figure A-2 appears in the online appendix to original article and can be found at http://sites.psu.edu/wright/wp-content/uploads/sites/13577/2015/12/coups-rp-appendix.pdf.

Notes

1. As readers may know, *Research and Politics* has a strict, low word count of 4000 words. This necessitates putting some of the discussion of robustness tests in an online appendix.
2. The issue that Miller underlines also arises when estimating the relationship between coups and autocratic transition. For example, half (10 out of 20) of the cases in which the coup variable coincides with autocratic transition during the post-1989 period are in a state of *recent coup* during their entire (short) duration and therefore do not inform the estimates. Thus, the models with regime-case FE reported in the main text of our original study are *difficult* tests of the hypothesis because the estimates from these models do not draw support from these short-lived regimes. In contrast to democratic transitions, the findings for autocratic transitions are robust to this difficult test.
3. The one exception is Thailand.
4. This equation is analytically equivalent to one that includes the non-demeaned variables as well as the mean variables as covariates. The estimates for β_1 in equation (1) are the same as those in a model that includes $X_{i,t} + \bar{X}_i$ as covariates.
5. In the estimating sample, there are three observations – all for Thailand – for which the country $\bar{X}_i$ is equal to 1. This occurs because all-post 1989 autocratic years in Thailand are short-lived regimes (1991–1992, 2006–2007, 2014–NA).

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References

Derpanopoulos G, Frantz E, Geddes B, et al. (2016) Are coups good for democracy? *Research and Politics* 3(1): 1–7.

Geddes B, Wright J and Frantz E (2014) Autocratic breakdown and regime transitions: A new data set. *Perspectives on Politics* 12(2): 313–331.

Miller MK (2016) Reanalysis: Are coups good for democracy? *Research and Politics* 3(4): 1–5.

Thyne CL and Powell JP (2016) Coup d'état or coup d'autocracy? How coups impact democratization, 1950–2008. *Foreign Policy Analysis* 12(2): 192–213.