A Note on Acemoglu and Robinson's Correction to "Why Did the West Extend the Franchise?"

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Abstract

Acemoglu and Robinson (2017) provide a correction to Proposition 1 in "Why Did the West Extend the Franchise?" (Acemoglu and Robinson 2000), showing that for intermediate values of q (the probability of social unrest in the future) the unique Markov Perfect Equilibrium is in mixed strategies. We discuss this correction in the context of our recent generalization of the Acemoglu-Robinson model to allow for a continuous institutional choice by the elite (Castañeda Dower, Finkel, Gehlbach, and Nafziger 2017). In that environment, no correction is necessary: there is a unique threshold q^* such that the elite liberalizes if $q < q^*$ and does not liberalize otherwise. Intuitively, when the elite can choose any level of representation between 0 and 1, the equilibrium level of representation leaves the excluded group just indifferent between revolting and not, thus eliminating the issue that Acemoglu and Robinson (2017) identify. The analysis in Castañeda Dower et al. (2017) demonstrates that the main empirical prediction of Acemoglu and Robinson (2000) generalizes: not only does the elite not liberalize when the excluded group poses a frequent threat of unrest, but conditional on some representation having been granted, the equilibrium level of representation is decreasing in the probability of future unrest.

In "Why Did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective," Acemoglu and Robinson (2000; hereafter, AR) launched a productive research program that has reinvigorated the study of political transitions. As is often the case with successful modeling enterprises, the appeal of the AR model lay not only in its elegance but in its capacity to produce a surprising result. Naive intuition suggests that an expansion of the franchise to include the poor should be more likely, the more often the poor pose a threat to the elite. The AR model generates precisely the opposite prediction. In the AR model, democratization is a way of credibly committing to future redistribution when such promises are otherwise not credible. Because the elite have an incentive to redistribute when the poor pose a credible threat of unrest (i.e., when the poor have "de facto political power"), democratization is not necessary when the probability of future unrest is high. It is only when the poor only occasionally pose a threat of unrest that the elite have an incentive to respond to that unrest by democratizing.

Without overturning this basic result, Acemoglu and Robinson (2017) provide an important correction to Proposition 1 in Acemoglu and Robinson (2000), which characterizes equilibrium in the AR model in terms of the parameter q, which measures the probability of social unrest in the future. Proposition 1 of Acemoglu and Robinson (2000) states that there exists a threshold q^* such that, if $q < q^*$, then the elite democratize the first time that the poor pose a credible threat of unrest, whereas if $q > q^*$, then the elite redistribute whenever the poor have de facto political power. Acemoglu and Robinson (2017) show that the correct proposition instead takes the following form: There exist two thresholds, $\bar{q}$ and q^*, with $\bar{q} < q^*$. If $q < \bar{q}$, then the elite democratize the first time that the poor pose a credible threat of unrest, whereas if $q > q^*$, then the elite redistribute whenever the poor have de facto political power. However, if $q \in (\bar{q}, q^*)$, then the unique Markov perfect equilibrium is in mixed strategies, with the elite democratizing with some probability strictly between 0 and 1 and with positive probability of revolution on the equilibrium path.

Why is Proposition 1 in Acemoglu and Robinson (2000) incorrect? The technical answer is that the equilibrium analysis in that article does not check against all possible deviations—in particular, for the case $q < q^*$, a deviation by the elite to offering maximal redistribution whenever the poor pose a credible threat of unrest, holding constant the elite's equilibrium strategy to extend the franchise the first time that the poor subsequently have de facto political power. Such a deviation is profitable to the elite if the poor respond by not revolting. That this may be possible in principle follows from the fact that democratization only works as a commitment device when the value to the poor from democracy, in which redistribution is maximal in every period, is greater than that from revolution. If the poor are sufficiently patient, maximal redistribution in the current period, while deferring franchise expansion to the next time that the poor pose a credible threat of unrest, is sufficient to prevent revolution.

In this note, we show that the issue identified by Acemoglu and Robinson (2017)—and the presence of revolution on the equilibrium path in the corrected proposition—is a consequence of modeling democratization as a discrete choice. In Castañeda Dower, Finkel, Gehlbach, and Nafziger (2017; hereafter, CFGN), we instead assume that the elite can choose any level of representation between 0 and 1, where "representation" is the probability that the (previously) excluded group has agenda-setting power in any period in a liberalized regime. In this generalized environment, the equilibrium level of representation chosen by the elite whenever the excluded group has de facto political power provides the excluded group with precisely their value from revolution. As a consequence, "liberalization" (the generalized analogue to "democratization" in CFGN) is immune to the deviation identified by Acemoglu and Robinson (2017), and the unique Markov perfect equilibrium in CFGN is in pure strategies.

The purpose of our generalization of the AR model is to demonstrate that the key empirical prediction highlighted above extends to the empirical setting that we examine in Castañeda Dower, Finkel, Gehlbach, and Nafziger (2017). Our analysis in that article, summarized below, shows that the key comparative static result in Acemoglu and Robinson (2000) generalizes: not only are the elite less likely to liberalize when the excluded group poses a more frequent threat of unrest, but conditional on some representation having been granted, the equilibrium level of representation is decreasing in the probability of future unrest. To the best of our knowledge, this prediction distinguishes the AR model and its cousins from any other extant model of political transitions.

This note proceeds as follows. We first briefly summarize our generalization of the AR model and associated analysis in CFGN, referring interested readers to that article for a complete exposition. We then show that the equilibrium level of representation in CFGN provides the excluded group with precisely their value from revolution. Finally, we demonstrate that the liberalization decision is immune to the deviation identified by Acemoglu and Robinson (2017).

1 Castañeda Dower, Finkel, Gehlbach, and Nafziger's (2017) generalization of the AR model

The environment in the CFGN model is identical to that in the AR model, with two exceptions. First, as our focus is on the probability of future unrest and not inequality, we assume a simple divide-the-pie environment, in which in any period an infinitely divisible resource of size one is divided between an elite (e) and an initially excluded majority (m), considered as unitary actors. We let x_t denote the share of the resource received by the majority in period t. As in the AR model, we assume that the cost of revolution is a random variable $\mu \in \{\kappa, 1\}$, where $\kappa \in (0, 1)$ and in any period $\Pr(\mu = \kappa) = q$. If the majority revolts, it receives $1 - \mu$ in perpetuity; the elite receives a payoff equal to zero. The elite and majority discount future payoffs according to the common discount factor δ.

Second, and more consequentially, we assume that the elite can "liberalize" by choosing a level of majority representation $\rho \in (0, 1)$. The variable ρ governs the Markov process in a liberalized (L) regime: In any period t following liberalization (including the period of liberalization itself), the majority has control rights over policy (denoted $\alpha = m$) and therefore chooses x_t with probability ρ, whereas the elite chooses policy ($\alpha = e$) with probability $1 - \rho$. The majority may choose to revolt following choice of x_t, with the process that determines the cost of revolution identical to that in an unliberalized (U) regime. (During the period of liberalization itself, we assume that the liberalized regime "inherits" the value of μ realized in the unliberalized regime.) The state space in a liberalized regime is therefore

$$\{(L, \kappa, m), (L, \kappa, e), (L, 1, m), (L, 1, e)\},$$

whereas that in an unliberalized regime is $\{(U, \kappa), (U, 1)\}$. We assume that the random variables μ and α are drawn independently, so that in a liberalized regime the state is

(L, κ, m) with probability $q\rho$, etc. In what follows, we suppress the subscript t for notational simplicity.

To derive the Markov perfect equilibrium of this game, we begin by asking when the majority would choose to revolt in an unliberalized regime rather than receiving the entire resource (i.e., $x = 1$) whenever the threat of revolution is credible—that is, when $\mu = \kappa$. Standard analysis implies that the value to the majority in the state (U, κ) when the elite chooses $x = 1$ in that state (and provides nothing when $\mu = 1$) is

$$V_m (U, \kappa, x = 1) = \frac{1 - \delta (1 - q)}{1 - \delta}.$$

The elite is therefore able to prevent revolution without liberalization if

$$\frac{1 - \kappa}{1 - \delta} \leq \frac{1 - \delta (1 - q)}{1 - \delta},$$

or $q \geq q^* \equiv \frac{\delta - \kappa}{\delta}$. An assumption analogous to Assumption 1 in Acemoglu and Robinson (2017) ensures that $q^* \in (0, 1)$.

In what follows, we restrict attention to the case $q < q^*$, which implies that the elite must liberalize to avoid revolution. To derive the optimal level of liberalization ρ, consider each of the four possible states in a liberalized regime. Clearly, when the majority has control rights over policy—that is, when the state is (L, κ, m) or $(L, 1, m)$—it chooses $x = 1$, keeping the entire resource for itself. Similarly, when the elite has control rights over policy and the majority does not pose a credible threat of unrest (i.e., in the state $(L, 1, e)$), the elite chooses $x = 0$. The interesting analysis occurs in the state (L, κ, e). From the perspective of the elite, the optimal division $\tilde{x}$ of the resource in this state is the minimal concession that ensures that the majority does not revolt:

$$\tilde{x} + \frac{\delta}{1 - \delta} [\rho + (1 - \rho) q\tilde{x}] \geq \frac{1 - \kappa}{1 - \delta}, \tag{1}$$

where in any future period the majority receives the entire resource with probability ρ (i.e., when it has control rights over policy) and $\tilde{x}$ with probability $(1-\rho)q$ (i.e., when the elite has control rights over policy but the majority poses a credible threat of unrest). The optimal division of the resource in this state, given ρ, is therefore

$$\tilde{x} (\rho) = \max \left[\frac{1 - \kappa - \delta\rho}{1 - \delta + \delta q (1 - \rho)}, 0 \right] \tag{2}$$

for $\rho \geq \frac{\delta(1-q)-\kappa}{\delta(1-q)}$. (If $\rho < \frac{\delta(1-q)-\kappa}{\delta(1-q)}$, Condition 1 cannot be satisfied.)

Equation 2 illustrates the tradeoff for the elite when choosing the level of liberalization ρ. When ρ is large, the elite can make smaller concessions when the state is (L, κ, e), as the majority anticipates that it will often be in a position to choose policy itself in a liberalized regime. On the other hand, when ρ is small, the majority is only occasionally able to dictate policy to the elite. Castañeda Dower, Finkel, Gehlbach, and Nafziger (2017) show that the optimal choice of ρ privileges the second consideration over the first, so that the elite chooses

$$\rho^* = \frac{\delta (1 - q) - \kappa}{\delta (1 - q)} \tag{3}$$

when the majority obtains de facto political power in an unliberalized regime. By Equation 2, this implies that elite provides $x = 1$ in the state (L, κ, e). In a liberalized regime, the majority receives the entire resource except in those periods in which the elite has control rights over policy and the majority does not pose a credible threat of unrest, in which case the majority receives none of the resource.

2 Relationship to Acemoglu and Robinson (2017)

In the AR model, the payoff to the poor from democratization is strictly greater than that from revolution when the revolution constraint binds. In CFGN, in contrast, the optimal choice of liberalization by the elite leaves the majority indifferent between liberalization and revolution. To see this, observe that the value to the majority from liberalization, given that the elite chooses ρ^*, is

$$V_m\left(L\left(\rho^*\right)\right) = 1 + \delta\left[\frac{q + (1-q)\rho^*}{1-\delta}\right]. \tag{4}$$

The majority receives the entire resource in the period of liberalization, regardless of whether control rights in this period are assigned to the majority or to the elite, as by assumption the threat of unrest in the current period carries over to the liberalized regime. In all subsequent periods, $x = 1$ if and only if the majority poses a credible threat of unrest or has control rights over policy. When neither is true, which occurs with probability $(1-q)(1-\rho^*)$, $x = 0$. Substituting ρ^* from Equation 3 into Equation 4 gives

$$V_m(L) = 1 + \delta\left[\frac{q + (1-q)\left[\frac{\delta(1-q)-\kappa}{\delta(1-q)}\right]}{1-\delta}\right] = \frac{1-\kappa}{1-\delta},$$

which is precisely the value to the majority from revolution when $\mu = \kappa$.

Because the equilibrium level of liberalization leaves the majority indifferent between revolution and liberalization, there is no incentive for the elite to deviate by choosing $x = 1$ when $\mu = \kappa$, holding constant its equilibrium strategy of liberalizing the next time that the majority poses a credible threat of unrest. Such a deviation is not profitable to the elite if the majority responds to the deviation by revolting. Standard analysis implies that the value to the majority from this deviation is

$$1 + \frac{\delta q}{1-\delta(1-q)} V_m(L) = 1 + \frac{\delta q}{1-\delta(1-q)} \cdot \frac{1-\kappa}{1-\delta},$$

which is strictly less than the value from revolution if $q < \frac{\delta-\kappa}{\delta}$, which is the case we are considering. The deviation that Acemoglu and Robinson (2017) identify is not profitable in the environment of CFGN.

3 Conclusion

Acemoglu and Robinson (2000) model democratization as a discrete choice. A consequence of this modeling decision, as Acemoglu and Robinson (2017) demonstrate, is that the unique Markov perfect equilibrium is in mixed strategies for intermediate values of q, which measures the probability of future unrest. In this note, we show that the issue identified by Acemoglu and Robinson (2017) disappears when we instead allow the elite to choose any level of representation between 0 and 1. Intuitively, when the elite can grant political representation with precision, it will never surrender more power than necessary, thus eliminating the incentive for the elite to deviate in the manner discussed by Acemoglu and Robinson (2017).

The analysis above and in Castañeda Dower, Finkel, Gehlbach, and Nafziger (2017) demonstrates that the key empirical prediction of the AR model generalizes. Not only is liberalization of any sort less likely when the probability of future social unrest is high, but the degree of liberalization (Equation 3 above) is negatively related to the same variable. This is the prediction that we examine empirically in Castañeda Dower, Finkel, Gehlbach, and Nafziger (2017).

References

Acemoglu, Daron, and James A. Robinson. 2000. "Why did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective." *Quarterly Journal of Economics*. 115(4):1167–1199.

Acemoglu, Daron, and James A. Robinson. 2017. "Why did the West Extend the Franchise? A Correction." Mimeo.

Castañeda Dower, Paul, Evgeny Finkel, Scott Gehlbach, and Steven Nafziger. 2017. "Collective Action and Representation in Autocracies: Evidence from Russia's Great Reforms." *American Political Science Review*. Forthcoming.