The Military: A ‘Strangelovian’ Arm of the State?

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Abstract

The goal of my thesis is to analyze the military in a game theoretical framework as an independent interest group. The military is a fundamental institution of the state because it maintains internal law and order, and protects the state from external threats. But, it also has its own interests, which sometimes motivate it to intervene in political processes.

Pakistan is a classical example of military interventionism. In the 59 years since the formation of Pakistan, the military has overthrown democratic governments three times. On each occasion, the act was motivated by an infringement of the military’s institutional interests.

I model intra-state power dynamics on the basis of the work of Acemoglu and Robinson (2006, Economic Origins of Dictatorship and Democracy). While the above authors consider only two interest groups, the poor and the rich, I add the military as a third player. The poor and the rich have taxable incomes, while the military is paid from tax revenue. Players compete over the tax rate and the military rent.

Democracy is the rule of the poor, while nondemocratic regimes are governed by the rich and the military. In both cases, disenfranchised populations are occasionally able to solve their collective action problems and threaten the existing regime. Since regime change is costly, however, it occurs in these ‘high threat’ states only when the costs involved are sufficiently low that the expected value from the new regime to disenfranchised groups exceeds their expected payoff stream under the current arrangement. I thus describe the range of parameters over which coups and revolutions are feasible against democratic and nondemocratic governments, respectively.

Finally, I detail the applicability of my model to my case-study. The military has played a vital role in the major political events in Pakistani history. These events are associated with shifts in the parameters of my model, as well as circumstances that made collective action possible. As such, I demonstrate that a game theoretical model of military behavior enriches the historical narrative, and also places its specificities in a widely applicable, systematic framework.
# Contents

1 Introduction 1

2 Literature Review 4

  2.1 Related Literature ........................................... 4
    2.1.1 The Model of Acemoglu and Robinson (2006) ............ 5

  2.2 My Contribution: A Holistic Conception of the Military .......... 9

3 Pakistan: A Classical Example of an Interventionist Military 11

4 The Military as a Rational Actor 16

  4.1 Theoretical Fundamentals .................................. 16
    4.1.1 Income and Taxation .................................... 16
    4.1.2 Democratic Regimes and Military Rents ................. 18
    4.1.3 Nondemocracy ........................................... 20
    4.1.4 Collective Action ....................................... 22
    4.1.5 Dynamic Framework of Regime Change ................... 24

  4.2 The Coup Game ............................................... 25

  4.3 An Aside: Military Generals - Patient or Impatient? .......... 32

  4.4 Back to the Narrative - A Tale of Three Coups .............. 33

  4.5 The Revolution Game ......................................... 37

  4.6 Military Rule in Pakistan ................................... 42

5 Conclusion 46

6 Bibliography 49
1 Introduction

What is the role of the military in the modern nation state? How do interactions between the military and democratic establishments contribute to the institutional trajectory of a state? How do authoritarian military regimes come to power, and how are they overthrown?

My thesis analyzes these questions, which lie at the heart of institutional economics, in a strategic, game-theoretical framework. The military is both an institution of the state and a powerful interest group. It is fundamental to the organization of the state because it protects property rights - it maintains internal law and order, and provides national security. Quoting Rousseau, in the absence of a coercive law enforcement mechanism, no man “would be so absurd as to take the trouble of cultivating a field, which might be stripped of its crop by the first comer” (qtd. in Waltz, 1959, p. 171). The military is problematic, however, because it is an independent actor; granted the power to enforce the law, it is also sufficiently powerful to make its own laws, that is, to coercively alter the political institutions of the state.

Hence, we arrive at Przeworski’s conundrum - a critical issue in the study of political institutions: “Why do people who have guns obey people who do not have them?” (2003, p. 96). If the military is capable of enforcing regime change at will, how do we account for the existence of democracy?

Acemoglu and Robinson (2006) state that the military is still a relative wildcard in the field of institutional economics (p. 355-6). We know empirically that militaries are subserviant to democratic governments under certain circumstances, and in certain
states. Thus, it is instructive to understand the basis of civilian control over the military in a theoretical framework.

I present an intertemporal model of political competition between three groups, the poor, the rich and the military. My model is based on that of Acemoglu and Robinson (2006), with the military added as a third player. The poor and the rich have taxable incomes, and the military is paid from tax revenue. Players compete over two policy instruments, the tax rate and the rents obtained by the military.

Democracy is the rule of the poor, while nondemocratic regimes are governed by the rich and the military. In both cases, disenfranchised populations are occasionally able to solve their collective action problems and threaten regime change. In these ‘high-threat states,’ ruling groups may commit to certain concessions in order to protect their franchise. These commitments are only semi-credible, however, because when the threat has passed, the government will revert to its favored policy. Regime change is also costly, so that it only occurs when the costs involved are sufficiently low that the expected value from the new regime to disenfranchised groups exceeds their expected payoff stream under the current arrangement. I thus describe the range of parameters over which coups and revolutions are feasible against democratic and nondemocratic governments, respectively.

Pakistan is a case in point of turbulent civil-military relations. In the 59 years since Pakistan became an independent state, the military has overthrown democratic governments three times. On each occasion, the act was motivated by an infringement of the institutional interests of the military, and supported by sections of the elites. Military dictatorships in Pakistan have been predatory and have set policies that heavily favored elite groups such as the bureaucracy, Islamic clerics and rural landlords, at the expense
Civil-military relations in Pakistan have been the subject of numerous historical and political studies (e.g., Jalal, 1995; Kukreja, 1991, 2003; Stern, 2001; Talbot 1998), but none of these have viewed the issue from a strategic perspective. While the above accounts explain the interventionist nature of the Pakistani military on the basis of “regional,” “international” and “socio-economic” factors (Kukreja, 2003, p. XIII), the expositions provided are both complex and highly case-specific.

In this paper, I interact theory with history to present a game theoretical model of military behavior that places the specificities of Pakistani history in a widely applicable, systematic framework. The major political events in the history of Pakistan are associated with shifts in the parameters of my model, generating a richer analytical narrative and a consistent set of explanations of historical events.

The remainder of my work is organized as follows: Section 2 surveys the literature relevant to my study, and details the manner in which my model attempts to systematize and augment what we already know about the military. Section 3 provides a brief historical narrative of Pakistan’s experiences with military intervention. Section 4 presents a theoretical model of civil-military relations; the model fundamentals apply to both democracy and dictatorship, and the Coup and Revolution games detail the individual cases. This section also ties the model to the case material, highlighting the implications of certain important theoretical results for our understanding of the narrative. Section 5 concludes, and puts forward possible areas for future research.


2 Literature Review

Since there is very limited literature pertaining directly to my work, I review related studies that have the military, or an institution that performs a similar role, as their focal point, and also those that motivate the theoretical framework of my model. In particular, I discuss at length the work of Acemoglu and Robinson (2006). After this, I explain how my theory of the role of the military in intra-state politics synthesizes the available scholarship.

2.1 Related Literature

Ticchi and Vindigni (2003) are the only authors to study the military as an independent entity through a game theoretical approach. They model the use of conscription by democratic states in order to avert military coups.\(^1\) The authors recognize that the “army is that state-specific institution endowed with the monopoly of the use of force” (p. 2).\(^2\) They explain that coups by elite groups against a democratic regime can only be organized with the support of the military (p. 3). This conclusion is critical in the understanding of power dynamics amongst institutions of the state.

Although Bates, Greif and Singh (2002) do not explicitly deal with the military, their work is crucial in the understanding of its necessity as a political institution. The authors present the state as a provider of “organized violence.” Under anarchy, private actors face a trade-off between production and investment in violence as a means to protect

\(^1\)Pakistan, the subject of my case-study, has a professional army. Hence, my model holds the composition of the army constant, and searches for other reasons for the interventionist nature of the Pakistani military. As such, I do not borrow from the structural framework of the authors’ model.

\(^2\)The military also increases social welfare by protecting society from international threats.
this production. The state, however, is a “specialist in violence” (p. 618). It uses the threat of violence to “defend property rights, thereby strengthening the incentives [of private actors] to engage in productive activity” (p. 599). Therefore, under the aegis of the state, citizens are able to “live at a higher level of welfare” (p. 624).

Defense is thus necessary for economic organization. As a public good, it must be funded through taxation. A ‘defense tax’ is naturally owed to the provider of defense, namely, the military. McGuire and Olson (1996) also recognize the importance of public goods to private enterprise, an effect that is ‘assumed away’ in other institutional studies (e.g., Acemoglu and Robinson, 2006; North, Wallis and Weingast, 2005; Weingast, 1997).

There is some tension in the literature regarding the relevant players in the determination of the institutions of the state. North, Wallis and Weingast (2005) posit that the masses are powerless in developing states (such as Pakistan), or “natural states,” which are organized on the basis of “limited political, economic and social entry” (p. 6-8). Accordingly, the authors do not account for the possibility of populist revolutions in their work. That is, they do not consider the power of large populations acting collectively.

2.1.1 The Model of Acemoglu and Robinson (2006)

In their seminal work, Acemoglu and Robinson develop an overarching theory of political institutions and transitions using a simple and flexible model. The authors portray society as divided into two groups, the “elites” and the “citizens” (2006, p. 15). The citizens comprise the majority, although, in general, they are poor, while the elites are affluent. Democracy is the rule of the citizens, while nondemocracy is the rule of the elites (p.
16-9). Governments make decisions on a single policy instrument, the tax rate. While the authors analyze certain deviations from these basic assumptions,\(^3\) the thrust of their work remains unchanged - interest groups jostle for control of the political institutions of the state, wherein the long-term allocation of political power is determined.

Due to their thorough and insightful approach, I adopt many of the features of the work of Acemoglu and Robinson. Two of the “building blocks” (p. 19) of the authors’ analysis form the basis of much of my work, and provide an excellent framework for the theoretical conception of the role of the military in intra-state politics.

First, the authors posit that “politics is inherently conflictual,” in that “most policy choices create distributional conflict” (p. 20). Although the fault lines along which an issue divides society are determined by the very nature of the issue at hand, the fundamental point of interest to their work is that the government will formulate policy in favor of the party with greater political power. It is therefore instructive to consider the very nature of power.

The immediately apparent type of power is ‘de facto power,’ the power of “brute force” (p. 20-1). In Hobbes’ state of nature, that of anarchy, “men are necessarily engaged in an incessant struggle for power over others,” to the extent that “one man’s power may be simply redefined as the excess of his over others” - the strongest man wields the greatest political power, and others must either defer to his interests or be vanquished (1985, p. 35-9). We do not live in the Hobbesian jungle, however, because there is another type of political power, allocated by the political systems and institutions of the state.

\(^3\)For example, they consider societies in which the middle class plays an important role (p. 255-86), as well as those in which the social divisions are based upon ideological preferences, rather than economic disparity (p. 203-14). In both cases, however, their framework from the basic analysis is extended to account for these variations, and their predictions remain robust.
States have laws, and (in general) constitutions, which allocate political power to certain institutions or groups. The political power of groups acquired through the institutions of the state may be termed ‘de jure power.’

An important difference between the two types of power is that de facto power is transient, while de jure power is not. Since the power of brute force has no legal basis, it depends entirely on the ability of a group to organize its resources in order to assert this power. Hence, groups attempting to exercise de facto power face problems of collective action, which they are only able to overcome in certain situations. I later discuss the issue of collective action in greater detail. De jure power, on the other hand, is enduring precisely because it is guaranteed by the political system.

The other critical building block of the work of Acemoglu and Robinson (2006), then, is the notion of political institutions. These, as discussed above, determine the present and future allocation of de jure power in a state (p. 22). If the group that possesses the de jure power in society also has greater de facto power than its opposition, then there is no opportunity for conflict. If, on the other hand, institutionally disenfranchised groups possess tremendous de facto power, they have the ability to influence policy choices in their favor, or even forcefully overthrow the existing institutions.

More explicitly, groups that control the government will make compromises in policy in the face of a revolutionary threat from the opposition. Since the power of the opposition is only transient, though, the government\(^4\) is likely to revert to its former policies when the threat has disappeared (see also Azam and Mesnard, 2001).

\(^{4}\)Throughout my work, I sometimes refer to ruling groups, namely, the poor in democracies and the military and rich in nondemocracies, as the government. Also, I refer to authoritarian regimes as dictatorships and nondemocracies.
The opposition, which realizes the imperfection of the government’s commitment, wishes to secure favorable policies not only today, but also in the future. The only means by which the opposition can guarantee the direction of policy in the future is to overthrow the existing institutions of the state, thus altering the allocation of de jure power. Even so, revolution is not a necessary consequence of a powerful opposition. Violent conflict destroys much capital, and if the expected cost of conflict is very high, opposition groups may accept the conciliatory policies of the government, even though they are aware that these policies will not endure (p. 22-30). By considering a dynamic institutional framework, Acemoglu and Robinson (2006) explain the circumstances in which political transitions “[emerge] as a way of regulating the future allocation of political power” (p. 24).

Despite its obvious strengths, Acemoglu and Robinson’s model cannot accommodate an institution as complex as the military. Their work implicitly identifies the military with the social elites, but considers neither its independent interests nor its role as a political institution, by which the state sanctions and even supports its disproportionate power (p. 355-6). In fact, the inanimateness of political institutions in the model of Acemoglu and Robinson suggests that their work may be, ipso facto, deficient in explaining the role of the military.

Before developing a strategic framework for the study of military behavior, it is necessary to integrate the above theory and provide further insights where necessary. Hence, I now analyze more closely the nature of the military.

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5I later return to the questions of the inability of the government to make credible policy commitments, and the cost of regime changes, and formally incorporate these effects in my model.
2.2 My Contribution: A Holistic Conception of the Military

The military is simultaneously a critical institution in the structural framework of the state, and a powerful interest group. The former effect has been adequately captured, whether explicitly or implicitly, by the aforementioned scholars. As explained above, the military serves the state by providing a universal threat of violence, which allows private actors to invest more resources in production. In a sense, the military provides the *deus ex machina* that allows an anarchic population to organize into structured society. Consequently, governments find it in their interest to invest in the military, so as to maximize national income, and grant the military authority over certain institutions of the state (e.g., defense). Together, these factors may be viewed as the level of institutionalization of the military in the state, because they define the institutional dependence of the state on the military.

On the flip side, the military has its own interest, the maximization of rents, coupled with tremendous power to pursue this objective. As such, the military also functions as a disproportionately powerful lobby group. It is this notion that is insufficiently explained in the available literature. The role of the military is properly understood only when we recognize its dual nature in the organization of the state.

Bates, Greif and Singh (2002) identify this dual role of the military, but do not distinguish it from the government. Such a distinction, however, is critical, because in reality, the military has its own institutional interests, often different from those of the government. In the extreme case, the military may, in the pursuit of these interests, even
disrupt the institutional apparatus of the state, by conducting a coup.

Moreover, since the military is a “specialist in violence,” its capacity for violence is institutionalized and immense. Thus, it is a macro-complex of collective action,\(^6\) which has the potential to depose a democratic government at any time.\(^7\) Why it does not always choose to exercise this power is an important question in the study of institutional change. Acemoglu and Robinson (2006) cannot answer this question because, in their model, the elites do not always have the organizational capability to carry out a coup.

I argue that the military would never choose to rule over a completely disenfranchised population because it lacks the resources to do so. The military is a specialist in organized violence, not organized production.\(^8\) Thus, it would not carry out a coup unless it had the support of a group (or groups) that would assist it in the economic and social organization of a post-coup society. With their relative wealth and access to resources, the elites are perfectly placed to perform this role. Therefore, I posit that military coups occur only when the rich and the military collectively choose to topple a democratic regime. After a coup, even if they have lost their power to act collectively, the elites would possess de jure power as members of the administrative machinery of the nondemocratic regime, and thus would be able to protect their own interests by influencing political institutions.

My work treats the military as an independent interest group that is simultaneously

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\(^6\) The fact that soldiers run into barrages of bullets as a matter of duty serves as ultimate testament to the ability of the military to solve collective action problems.

\(^7\) Coups may fail, but both Acemoglu and Robinson (2006, p. 226) and Ticchi and Vindigni (2003, p. 15) assume that they always succeed. This assumption contributes tremendously to the simplicity of their exposition.

\(^8\) The words of Yahya Khan, army chief and Head of State of Pakistan in 1969, vividly express the dichotomy between military structure and the needs of social organization. He is said to have once exclaimed in despair, “I made no particular attempt to know how to run a government . . . for 32 years I had been in the army . . . and so I thought running the country was no different from running the army” (qtd. in Talbot, 1998, p. 193).
an arm of the state. I aim to enrich the theory of intra-state power dynamics by recognizing the military as a unique entity - a private actor whose utility is wholly determined in the public sphere. While my focus is on military coups, I also study strategic interactions in nondemocratic regimes. As such, I aim to shed light on the role of the military in the determination of political institutions.

3 Pakistan: A Classical Example of an Interventionist Military

This section outlines the important events in Pakistani history that motivate my theoretical framework. The British rule of India ended in August 1947, with the violent partition of the subcontinental mainland into two states, India and Pakistan. In an anomalous arrangement, the state of Pakistan comprised two separate regions, West Pakistan and East Pakistan (today, Bangladesh), separated by over 1,000 miles of Indian soil (Talbot, 1998, p. 99). Although 55% of the Pakistani population resided in the Bengali eastern segment, the locus of power remained in the west, and political, military and bureaucratic circles were dominated by the Punjabis of West Pakistan (Stern, 2001, p. 125). Consequently, there existed considerable ethnic tension between the Eastern and Western wings.9

Kashmir was a disputed region at the time of Partition, and, soon after, India and Pakistan entered into a military dispute over the princely state. This conflict necessitated the diversion of Pakistan’s meager resources towards the military “before political

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9 Also, unlike the East, West Pakistan was ethnolinguistically diverse, and has witnessed much strife amongst the Punjabis, the Sindhis, the Baluchis and the Pathans (Stern, 2001, p. 126-8).
processes in Pakistan had become more clearly defined” (Jalal, 1995, p. 49). Moreover, conflict with Pakistan’s larger neighbor exacerbated the state’s strategic insecurity, and bestowed upon the military a vaunted position in the political system.

Pakistan also lost its only two legitimate political leaders, *Quaid-e-Azam* Muhammad Ali Jinnah, the founder of Pakistan, and Liaquat Ali Khan, Pakistan’s first Prime Minister, within five years of independence. After the assassination of Liaquat Ali Khan in 1951, Pakistan was ruled for seven years by an alliance between Punjabi politicians, bureaucrats and the military, with no general elections (p. 51-2).

The first general elections in independent Pakistan were scheduled to be held in March 1959. Under the leadership of General Muhammad Ayub Khan, however, the military precluded these elections by conducting a coup in October 1958 (Kukreja, 2003, p. 32). Thus ended Pakistan’s first attempt at democratic governance.

In his eleven years at the helm, Ayub succeeded in reviving the Pakistani economy by encouraging industrialization and private enterprise. In fact, his policies were highly capitalistic, and emphasized growth, but not redistribution. On the political front, Ayub launched the Basic Democracies system, by which the population indirectly elected political representatives, a year after assuming power, and withdrew Martial Law through the introduction of Pakistan’s second Constitution in 1962 (Talbot, 1998, p. 154-60).\(^\text{10}\)

Ayub’s decline began after his unsuccessful attempt to wrest Kashmir from India in the War of 1965. This military failure cost his regime much political capital. Beginning in 1968, students and industrial laborers engaged in violent demonstrations in numerous cities to protest inflation, increasing inequality and the lack of representative political

\(^{10}\)Pakistan’s first Constitution was ratified only in 1956, nine years after independence.
processes (Stern, 2001, p. 129). On the Eastern front, meanwhile, Ayub’s highly repressive policies and the “internal economic colonization” of East Pakistan by the West sparked a radical Bengali response, and heightened demands for full provincial autonomy (Talbot, 1998, p. 188). Finally, under intense political pressure, Ayub resigned as Head of State, handing power over to Agha Muhammad Yahya Khan, the Commander-in-Chief of the army (Jalal, 1995, p. 61).

Wary of repeating the mistakes of the Ayub regime, Yahya decided to hold nationwide elections in October 1970. He did, however, retain the power to veto “any constitutional document produced by the national assembly” (p. 61). Due to massive discontentment with the West in East Pakistan, Sheikh Mujibur Rahman’s Awami League won 160 out of 162 seats in the East, thus securing an absolute majority in the combined National Assembly.\footnote{These were Pakistan’s first elections under universal adult suffrage (Jalal, 1995, p. 61). Ayub had previously held elections in 1965 with a restricted electorate (p. 59).} Meanwhile, Zulfikar Ali Bhutto’s Pakistan People’s Party (PPP) won only 81 seats in the West. But, the West refused to be ruled by a Bengali leader, and negotiations amongst Yahya, Bhutto and Rahman made no headway. Eventually, in March 1971, Yahya ordered a military crackdown on East Pakistan.

The ensuing civil war in East Pakistan caused a massive influx of refugees into India. As the refugee problem ballooned out of proportion, India declared war on Pakistan. Indian forces captured 93,000 Pakistani troops in Dhaka (the capital of East Pakistan), and assisted the East in attaining the status of an independent nation state, Bangladesh. This political and military debacle spelled the end of the Yahya regime. In December 1971, the general was forced out of office under great public pressure, and Bhutto assumed

Zulfikar Ali Bhutto assumed power in alliance with leftist parties, and, at least initially, adopted a populist, socialist stance that embraced the urban intelligentsia (Jalal, 1995, p. 82; Stern, 2001, p. 137-8). Bhutto took decisive steps towards containing the power of the military; the Commander-in-Chief position was abolished and the tenure of service of senior officers was limited. Meanwhile, he adopted a strong anti-India stance, and resolved to develop nuclear weapons after India’s first nuclear test in 1974. This decision angered his patrons in Washington, who cut back on military support to Pakistan. Consequently, the military strongly opposed the nuclear program (Jalal, 1995, p. 77-82), but Bhutto pursued it anyway.

As a leader, Bhutto had little patience for any form of opposition. His repression of competition and authoritarian style alienated large sections of his support base, including the professional elite, the small traders and merchants, and the Islamists (Talbot, 1998, p. 243-4). Although he won the elections of 1977, the opposition accused him of “massive electoral rigging,” and violent protests erupted throughout Pakistan (Kukreja, 2003, p. 42). Seizing the opportunity, the military, under General Muhammad Zia-ul-Haq, deposed the President. Bhutto was tried for treason, and hanged in 1979.

Zia’s eleven year reign was marked by violent repression and the state-sponsored Islamization of Pakistani society. The general attempted unsuccessfully to construct a monolithic Pakistani Islam in a society of diverse faiths. His regime witnessed a great deal of sectarian violence, including numerous riots in Sindh, beginning in 1985, and continuing until the end of the regime. Despite much opposition, Zia remained in power through skillful political manipulation. The General held party-less elections in 1985,
but armed himself with the Eighth Amendment, which gave the army the constitutional right to depose any democratically elected regime. Zia was the Pakistani Head of State until his death in a mysterious plane-crash in 1988 (Talbot, 1998, p. 245-86).

Following Zia’s death, Pakistan struggled with democracy through four regimes that spanned eleven years. Three of these fell victim to Zia’s Eighth Amendment. In 1988, Benazir Bhutto, daughter of Zulfikar Ali Bhutto, narrowly won the Prime Ministerial election as the leader of the PPP. Despite beginning with much promise, she fell out with the military and President Ishaq Khan, a close ally of the military. Consequently, in 1990, Khan fired her for corruption under the Eighth Amendment. Fresh elections brought to power Nawaz Sharif of the Islamic Democratic Alliance (IDA), with a massive majority. Sharif attempted to use his numerical advantage in the National Assembly to nullify the Eighth Amendment, so as to consolidate his position. He failed, however, and was fired in 1993, taking Ishaq Khan down with him in the negotiations with the military that ensued. In elections the same year, Benazir once again won a narrow victory, but, as before, her inability to forge a stable relationship with the army, coupled with ethnic violence and a severe economic crisis, resulted in her downfall, as President Leghari dismissed her government in 1996 (Kukreja, 2003, p. 225-51).

In the elections of 1997, Sharif returned to power with an even larger majority than before. On this occasion, he succeeded in repealing the Eighth Amendment. Sharif rapidly moved to crush any possible opposition to his rule, including that of dissidents within his party. He ruled in consultancy with an inner circle of family members, and excluded the army from the political decision making process. Sharif’s deteriorating relationship with General Musharraf, the army chief, “reached the lowest ebb in the wake
of the Kargil misadventure” of 1999, which ended in an “unconditional [Pakistani] withdrawal,” after a military conflict with Indian troops (p. 256-7). In October 1999, Sharif attempted to sack Musharraf by blaming him for the failure, only for the latter to oust Sharif in a bloodless coup. Once again, the Pakistani army had flexed its muscles when challenged by political forces. Musharraf has been the head of government of Pakistan ever since (p. 251-7).

4 The Military as a Rational Actor

In this section, I present a theoretical model of military behavior. I discuss separately the ‘Coup Game’ in democracy and the ‘Revolution Game’ in nondemocracy, and apply the results obtained in each instance to the relevant case material.

4.1 Theoretical Fundamentals

4.1.1 Income and Taxation

My game comprises \((n + 1)\) players, namely the \(n\) civilians in a state, and the military,\(^{12}\) where \(n\) is odd. For the sake of simplicity, I assume that the military does not vote or pay taxes.\(^{13}\) A fraction \(\delta\) of the civilians is rich, while the remaining \((1 - \delta) > \frac{1}{2}\) civilians are poor. Assume that every poor civilian has income \(y_p\), and every rich civilian earns \(y_r\).\(^{14}\) The military, meanwhile, is paid from the taxation of civilian income, because it

\(^{12}\)The treatment of the military as a single player is suggestive - the military stands apart from other interest groups in its ability to solve collective action problems amongst its members with great efficiency.

\(^{13}\)These premises seem reasonable and will not affect the thrust of my work, because the size of the military is usually very small compared with the overall population, and the military is usually too small a constituency to swing election results.

\(^{14}\)The given assumptions are consistent with Acemoglu and Robinson (2006, p. 104).
provides public goods, as discussed above. Now, define mean civilian income as follows:

\[ \bar{y} = \frac{1}{n} \sum_{i=1}^{n} y_i = \delta y_r + (1 - \delta) y_p. \]

Measure inequality in the society through \( \theta \), the fraction of civilian income earned by the rich (Acemoglu and Robinson, 2006, p. 104). Hence,

\[ y_p = \frac{(1 - \theta)n\bar{y}}{(1 - \delta)n} = \frac{(1 - \theta)\bar{y}}{(1 - \delta)} \quad \text{and,} \quad y_r = \frac{\theta n \bar{y}}{\delta n} = \frac{\theta \bar{y}}{\delta}. \]  

Noting the \( y_p < y_r \), we get,

\[ \frac{(1 - \theta)\bar{y}}{(1 - \delta)} < \frac{\theta \bar{y}}{\delta} \quad \text{or,} \quad \delta < \theta. \]  

The political institutions in place determine the tax rate, \( \tau \geq 0 \). The tax rate is, more generally, a proxy for the redistribution of societal resources amongst citizens. Taxation, however, generates a deadweight loss, as explained in Acemoglu and Robinson (2006), because of “the costs of administering taxes and creating a bureaucracy,” and also since “greater taxes . . . distort the investment and labor supply incentives of asset holders and create distortions in the production process” (p. 100).

My characterization of the cost of taxation is derived from the above authors’ work (p. 100-1). Total cost is a continuous function, \( C(\tau)n\bar{y} \), which is normalized by the total civilian income, \( n\bar{y} \).\textsuperscript{15} Moreover, \( C: [0,1] \rightarrow \mathbb{R} \), such that \( C(0) = 0 \), and \( C \) is increasing in \( \tau \) and strictly convex, so that \( C'(\cdot) > 0 \), \( C''(\cdot) > 0 \) for all tax rates. The convexity of \( C \) ensures the fulfillment of the second-order condition of the utility maximization problem that I shortly discuss. Assume also that \( C'(0) = 0 \), and \( C'(1) > 1 \),\textsuperscript{16} so that the marginal

\textsuperscript{15}It is likely that deadweight loss increases as the fraction of national income that is redistributed to the military increases, because redistribution of income towards the military would further distort the citizens’ incentives to produce. For the sake of simplicity, however, I do not consider such an effect.

\textsuperscript{16}Note that Acemoglu and Robinson specify \( C'(1) = 1 \). I consider \( C'(1) > 1 \), as MacGuire and Olson (1996) have done, so that, above a certain tax rate, the marginal cost of taxation exceeds the marginal tax revenue.
cost of taxation is very low at low tax rates, and high at higher levels of redistribution.

4.1.2 Democratic Regimes and Military Rents

After a government determines the tax rate, $\tau$, society faces a deadweight loss, $C(\tau)$, and makes a payment to the military. Now, I have argued that governments maximize national income by investing in military spending and granting the military control over certain institutions of the state. Assume that there exists a minimal fraction $m_0$ of national income that must be invested in the military in any time period, in order to allow society to organize for production. For simplicity of exposition, suppose that spending above this amount will not increase income. Thus, as discussed above, a democratic government will choose to pay the military a fraction $m \geq m_0$ of national income. In each period, the government then redistributes the remaining income equally amongst its civilians, such that every civilian receives a transfer payment of $T$, defined as follows:

$$T = \frac{1}{n} \left( \sum_{i=1}^{n} \tau y_i - (m + C(\tau)) n \bar{y} \right) = (\tau - m - C(\tau)) \bar{y}.$$  

As such, the government budget is balanced in every period. The indirect utility for rich and poor citizens is the sum of post-tax incomes and transfer payments received. The indirect utility of the military is simply the payment that it receives from the government, normalized by the national population. That is, for $i \in \{p, r\}$,

$$V_i(D, \tau, m) = (1 - \tau) y_i + (\tau - m - C(\tau)) \bar{y}$$  

$$V_m(D, \tau, m) = m \bar{y}.$$
Here, $D$ indicates that the state is democratic. Now, under democracy, citizens vote on $\tau$ and $m$. Since they will vote to maximize utility, the citizens’ preferred tax rate must satisfy the following first-order condition, written in Kuhn-Tucker form in order to consider the possibility of a corner solution (Acemoglu and Robinson, 2006, p. 102):

\[ V_i' = -y_i + (1 - C'(\tau_i))\bar{y} = 0 \quad \text{and,} \quad (\tau_i - C(\tau_i)) > m_0 \quad \text{or,} \]

\[ V_i' = -y_i + (1 - C'(\tau_i))\bar{y} \leq 0 \quad \text{and,} \quad (\tau_i - C(\tau_i)) = m_0. \quad (3) \]

The rich prefer minimal redistribution, so their ideal tax rate, $\tau_r$, is defined implicitly by,

\[ \tau_r - C(\tau_r) = m_0. \quad (4) \]

Moreover, it is clear that all voters, whether rich or poor, will seek to minimize $m$, and thus their preferred policy will be $m = m_0$. As such, voting will essentially occur on a single dimensional policy space, where this policy is the tax rate. Now, the median voter is poor, since $(1 - \delta) > \frac{1}{2}$. Hence, by the Median Voter Theorem, a democratic government will set the tax rate preferred by the (poor) median voter.\textsuperscript{17} I assume that this tax rate, $\tau_p$, is an internal solution to the maximization problem. Intuitively, this assumption seems valid because democratic regimes typically provide their citizens with numerous public goods. Thus, $\tau_p$ is implicitly given by,

\[ C''(\tau_p) = 1 - \frac{y_p}{\bar{y}} = \frac{\theta - \delta}{1 - \delta} \in (0, 1). \quad (5) \]

From the above analysis, it follows that $\tau_p > \tau_r$. The indirect utilities of the players are now given by,

\[ V_i(D) = (1 - \tau_p)y_i + (\tau_p - m_0 - C(\tau_p))\bar{y} \]

\textsuperscript{17}For a detailed discussion of the Median Voter Theorem, please refer to Acemoglu and Robinson (2006, p. 92-9). For our purposes, it suffices to know that when voting occurs along a single dimensional policy space, the preferences of the median voter prevail.
\[ V_m(D) = m_0 \bar{y}. \]

Now assume that \( \tau_p \) is the maximal tax rate that any government can set, whether or not it is democratic. It is useful to note that the military’s most preferred policy corresponds to the collection of maximal tax revenue, none of which is redistributed to the civilian population. In this case, \( \tau = \tau_p \), by hypothesis, and \( m = (\tau_p - C(\tau_p)) \).

4.1.3 Nondemocracy

Unlike democracies, dictatorships have no incentive to provide public goods other than the service of the military. We know that nondemocracy is the rule of the military-elite combine. The rich prefer not to have their income redistributed, and the military would rather consume the entire tax revenue. Therefore, suppose an authoritarian regime sets tax rate \( \tau_N \), where \( N \) indicates that the state is not democratic. For \( i \in \{p, r\} \), the payoffs of the players will be,

\[ V_i(N) = (1 - \tau_N)y_i \]
\[ V_m(N) = (\tau_N - C(\tau_N))\bar{y}. \]

How is \( \tau_N \) determined? On the one hand, neither the military nor the rich can rule without the support of the other; the military requires the assistance of the rich in the organization of the economy, and the rich need the coercive powers of the military in order to impose their will on the disenfranchised masses. On the other hand, the predatory

\[ \text{Since } C'(\tau_p) < 1, \text{ tax revenue would actually maximized at a tax higher than } \tau_p, \text{ where the marginal cost of taxation equals the increase in revenues. So, properly speaking, the military’s ideal policy would correspond to this tax rate, and zero civilian public goods. But, I ignore this case, because it does not contribute to our intuition about civil-military relations, and adds a great deal of complexity to the derivation of equilibrium strategies.} \]
nature of the military gives rise to a conflict of interests within the ruling coalition. The rich would like to pay the lowest possible tax, \( \tau_r \), but the military, which derives its income from the consumption of tax revenue, favors higher taxes. Therefore, dictatorships must determine policy according to a bargain between the rich and the military, such that both groups would prefer the coalition arrangement to a reversion to democracy. Acemoglu and Robinson fail to tackle this issue because they implicitly consider the military as a part of the elites.

Assume that, if either party leaves the coalition, there is a frictionless transition to democracy.\(^{19}\) Consequently, dictatorships must set \( \tau_N \) such that \( V_m(N, \tau_N) \geq V_m(D) \) and \( V_r(N, \tau_N) \geq V_r(D) \). Let \( \tau^m_N \) be the threshold value of \( \tau_N \) below which the military would prefer democracy, and let \( \tau^r_N \) be the tax rate above which the rich will not profit from dictatorship.\(^{20}\) From (1) and (2), these values are given by,

\[
\tau^m_N = m_0 + C(\tau^m_N) \quad \text{and} \quad \tau^r_N = \frac{1}{\theta}(\tau_p(\theta - \delta) + (C(\tau_p) + m_0)\delta)
\]

Clearly, \( \tau^m_N = \tau_r \), defined by (4). Notice that a military-elite arrangement is feasible, since

\[
\tau^r_N - \tau^m_N = \frac{1}{\theta}((\tau_p - m_0)(\theta - \delta) + C(\tau_p)\delta - C(\tau_r)\theta) \geq \frac{1}{\theta}((\tau_p - m_0 - C(\tau_p))(\theta - \delta) > 0,
\]

since \( \tau_p > \tau_r \) and thus \( C(\tau_p) > C(\tau_r) \). Thus, we can write \( \tau_N \in (\tau_r, \tau^m_N) \). Since the precise bargaining arrangement between the rich and the military is not the focus of my work, I simply assume that the military has bargaining power \( \alpha \in (0, 1) \) in the ruling coalition.

\(^{19}\)In the next section, I examine coups and revolutions, in which regime change is, in fact, costly.
\(^{20}\)Throughout my work, I assume that, when players are faced with equal payoffs, they will opt against regime change.
so that the tax rate under nondemocracy is finally given by,

\[
\tau_N = \alpha \tau_r^N + (1 - \alpha) \tau_r.
\]

(6)

Figure 1 illustrates the various tax rates defined above.

![Graph illustrating tax rates in democracy and dictatorship.](image)

Figure 1: Tax rates in democracy and dictatorship.

4.1.4 Collective Action

Democratic governments set high tax rates \((\tau_p)\) and pay low military rents \((m_0)\). Hence, the payoff structure under democracy leaves incentive for both the military and the rich to pursue an alternative arrangement by carrying out a coup. Similarly, a nondemocratic regime may be deposed through a revolution of the masses, who find their interests better represented under democracy. In both cases, however, regime changes only occur when disenfranchised populations assert their de facto power through organized activity. As I have previously discussed, such power is transitory, because large populations suffer from serious collective action problems. Under which circumstances will groups be able to organize their activities?
Lichbach explains that “collective action, if undertaken on a short-term basis, may indeed occur; collective action that requires long periods of time does not... Given that most people’s commitments to particular causes face inevitable decline, most dissident groups are ephemeral, most dissident campaigns brief” (qtd. in Acemoglu and Robinson, 2006, p. 128). That is, players are only able to overcome their collective action problems “in moments of state collapse or great crisis,” and their ability to act collectively, from which arises their de facto power, is only short lived. Similarly, Weingast (1997) explains that elite groups attempting to form pacts of collusion cannot always do so, but are most likely to succeed during times of national upheaval (p. 249-50). Therefore, we may consider that, in any time period, nature is in one of two states, L, when the threat of regime change is low, or H, when disenfranchised populations are able to collude against the government, and thus there is a high threat of regime change.

Finally, one might imagine that coups and revolutions are attenuated forms of civil wars, and are thus likely to disrupt production. Assume that a military coup perpetually destroys a certain fraction $\phi \in (0, 1]$ of national income. Under the low-threat state, normalize $\phi = 1$, indicating that the organization of a coup is too expensive in this state. In a situation of high threat, however, $\phi < 1$, so that the military and the rich may rationally opt for regime change (Acemoglu and Robinson, 2006, p. 144-6).

Similarly, suppose a revolution against an authoritarian dictatorship permanently destroys a fraction $\mu \in (0, 1]$ of total income. For the reasons stated above, write $\mu = 1$ in state $L$, and $\mu < 1$ in state $H$. Thus, revolutions are feasible only in high threat states.
4.1.5 Dynamic Framework of Regime Change

The inability of disenfranchised populations to collude in order to enforce regime change in a low threat state, a collective action problem, gives rise to a problem of credible commitment on the part of the ruling groups: although the government may promise concessions to the opposition during times of national upheaval, it cannot credibly commit to maintain these policies when the emergency has passed (Acemoglu and Robinson, 2006, p. 133-51).

Let every individual $i$ have an infinite time horizon. Define individual utility as the expected sum at time $t = 0$ of indirect utility over all future periods, with time discount factor $\beta \in (0, 1)$. Hence,

$$U_i = E_0 \sum_{t=0}^{\infty} \beta^t V_{i,t}.$$ 

With the above framework in mind, consider the following order of play in every time period $t$:

1. Nature reveals its state $L$ or $H$, where $L$ occurs with probability $q$, and $H$ occurs with probability $(1 - q)$.21

2. The government announces $\tau$ and $m$.

3. If the state is democratic, the military and the rich decide whether or not to carry out a coup. If not, the poor decide whether or not to revolt.
4.2 The Coup Game

Figure 2 illustrates the decision-tree faced by the players at any time period in a democratic regime. The intuition behind the game is that the poor may offer concessions to either the rich or the military in an order to avoid a coup in the high-threat state, because coups only occur with the acquiescence of both of these groups. Such concessions are limited, however, because all players are aware that they will be revoked when the threat has passed. We know that opportunities for collective action are very rare. Therefore, if the cost of regime change is sufficiently low, the rich and the military will conduct a coup whenever one such opportunity arises, in order to secure higher payoffs in the future.

In solving the above game, for the sake of simplicity, I derive only Markov perfect equilibria, in which players do not learn from the history of the game.\textsuperscript{22} Proceeding by

\textsuperscript{21}I assume, for simplicity of exposition, that the probability that society will be in a high threat state is the same in democracy and nondemocracy.

\textsuperscript{22}Acemoglu and Robinson base most of their results on Markov perfect equilibria (p. 152-61).
backward induction, consider state $L$. Since $\phi = 1$, the rich and the military will perceive no gains from attempting a coup. Thus there is no threat of a coup, and since I do not allow for learning, the democratic government will set its ideal tax rate $\tau_p$, and pay the military the minimal rent, $m_0$. Since there will be no coup, the expected utilities of the players in the low threat state are given by,

$$U_i(D, L) = (1 - \tau_p)y_i + (\tau_p - m_0 - C(\tau_p))\bar{y} + \beta(qU_i(D, L) + (1 - q)U_i(H))$$
$$U_m(D, L) = m_0\bar{y} + \beta(qU_m(D, L) + (1 - q)U_m(H)).$$

Intuitively, the given equations simply express the total expected utility of each player as the sum of payoffs today, and expected payoffs tomorrow.\(^{23}\)

Now consider state $H$, in which a coup may result along the equilibrium path, since $\phi < 1$. The payoffs in this state thus depend on whether or not there will be a coup. Let $C$ indicate that a coup has occurred. Thus, for $i \in \{p, r, m\}$, we can write,

$$U_i(H) = (1 - \psi)U_i(D, H) + \psi U_i(C),$$

where $\psi$ takes value 0 if there is no coup, and 1 if there is a coup. Accounting for the cost of a coup, we can write,

$$\psi = \begin{cases} 
0, & \text{if } U_r(D, H) \geq U_r(C) \text{ or } U_m(D, H) \geq U_m(C) \\
1, & \text{if } U_r(D, H) < U_r(C) \text{ and } U_m(D, H) < U_m(C). 
\end{cases}$$

\(^{23}\)For example, consider the latter equation. We know that, in state $L$, the military will receive a payment of $m_0\bar{y}$ today. It will also expect that that the low threat state will be repeated (and hence democracy will endure) tomorrow with probability $q$. With probability $(1 - q)$, the state will be in a high threat state. In each case, it will expect its payoffs to be the same as those of the respective states today, because the specifications of the repeated game are identical in every period. This continuation value of the game is discounted by $\beta$, since the payoffs associated with it will only be realized tomorrow (Acemoglu and Robinson, 2006, p. 155).
The above expression reiterates the fact that the poor are able to protect their franchise in state $H$ as long as they are able to make an attractive offer to either the rich or the military. Specifically, they may either set lower taxes to gain the support of the rich, or pay the military higher rents. Suppose the poor are able to prevent a coup in state $H$ by setting a tax rate of $\tau^*$ and a military rent payment of $m^* \geq m_0$. Then, since $\psi = 0$, for $i \in \{p, r\}$, we have the following payoffs:

$$U_i(D, H) = (1 - \tau^*)y_i + (\tau^* - m^* - C(\tau^*))\bar{y} + \beta(q U_i(D, L) + (1 - q) U_i(D, H))$$

$$U_m(D, H) = m^* \bar{y} + \beta(q U_m(D, L) + (1 - q) U_m(D, H)),$$

where the given closed forms follow the intuition discussed above. The above equations can be solved simultaneously as follows:

$$U_i(D, H) = \frac{((1 - \tau^*)y_i + (\tau^* - m^* - C(\tau^*))\bar{y})(1 - \beta q) + ((1 - \tau_p) y_i + (\tau_p - m_0 - C(\tau_p))\bar{y})\beta q}{(1 - \beta)}$$

$$U_m(D, H) = \frac{\bar{y}(m^*(1 - \beta q) + m_0 \beta q)}{(1 - \beta)}$$

Suppose instead that there is a coup, and assume that the players expect the most preferred policy of the authoritarian dictatorship to be implemented in every time period thereafter. We know that dictatorships ideally set the tax rate $\tau_N$, given by (6), and pay the entire tax revenue to the military. Given the cost involved with a coup, the expected utilities of the players after a coup are,

$$U_i(C) = \frac{(1 - \phi)(1 - \tau_N)y_i}{(1 - \beta)}$$

---

24This assumption approximates the more realistic situation in which the players would once more expect state $L$ with probability $q$ and state $H$ with probability $(1 - q)$. The approximation is reasonable, since $q \gg (1 - q)$. That is, high-threat states are very rare. The assumption is also useful, because it contributes tremendously to the simplicity of the model. Acemoglu and Robinson (2006) make a similar assumption (p. 154).
In order to determine the equilibrium path in the high threat state, consider first the most elementary case, in which the cost of a coup is sufficiently high that the democratic government does not need to make any concessions in order to prevent regime change. Formally, let the government set \( \tau = \tau_p \) and \( m = m_0 \) in all states of nature. Then, for \( i \in \{ p, r \} \), the players’ payoffs may be written as,

\[
U_i(D, \tau = \tau_p, m = m_0) = (1 - \tau_p) y_i + (\tau_p - C(\tau_p) - m_0) \bar{y} (1 - \beta)
\]

\[
U_m(D, \tau = \tau_p, m = m_0) = m_0 \bar{y} (1 - \beta)
\]

Let \( \phi^* \) be the cost of coup such that, \( U_m(D, \tau = \tau_p, m = m_0) = U_m(C, \phi = \phi^*) \), or, from

\[
\phi^* = 1 - \frac{m_0}{(\tau_N - C(\tau_N))}.
\]

Then, if \( \phi \geq \phi^* \), the military will never conduct a coup. Similarly, let \( \phi^{**} \) be the cost of coup such that, \( U_r(D, \tau = \tau_p, m = m_0) = U_r(C, \phi = \phi^{**}) \), which gives,

\[
\phi^{**} = \frac{(\tau_p - \tau_N) \theta - (\tau_p - C(\tau_p) - m_0) \delta}{(1 - \tau_N) \theta}.
\]

Clearly, if \( \phi \geq \phi^{**} \), the rich will never support a coup. We now know that, as long as \( \phi \geq \min\{\phi^*, \phi^{**}\} \), the cost of coup is sufficiently high that either the military or the rich has no incentive to conduct a coup even when no concessions are made. Hence, the poor will never make concessions, and there will be no coup.

In the more informative scenario, let \( \phi < \min\{\phi^*, \phi^{**}\} \). Then, a democratic government attempting to preclude a coup in the high threat state must placate either the military or the elites.
The best concession that a democratic government can make to the military is the military’s ideal policy structure - a tax rate of $\tau_p$, and zero civilian redistribution. Under this scenario, the payoffs to the military\textsuperscript{25} are given by,

$$U_m(D, H, \tau^* = \tau_p, m^* = (\tau_p - C(\tau_p))) = \frac{((\tau_p - C(\tau_p))(1 - \beta q) + m_0 \beta q)\bar{y}}{(1 - \beta)}.$$  

Let $\phi_m$ be the threshold cost of coup, below which, even under the above payoffs, the military will prefer to carry out a coup. That is, suppose $\phi_m$ is such that $U_r(D, H, \tau^* = \tau_p, m^* = (\tau_p - C(\tau_p))) = U_r(C)$. Then,

$$\phi_m = 1 - \frac{(\tau_p - C(\tau_p))(1 - \beta q) + m_0 \beta q}{(\tau_N - C(\tau_N))}. \quad (8)$$

If $\phi < \phi_m$, the poor will not be able to buy off the military. Even so, it could possibly protect democracy by making concessions to the elites. In this regard, the best deal that the poor can offer is the tax rate $\tau_r$, given by (4), which is the elites’ most preferred rate. Since $(\tau_r - C(\tau_r)) = m_0$, the entire tax revenue must be paid to the military in order to maintain the minimal defense expenditure required for economic organization. The payoffs to the rich in this case are as follows:

$$U_r(D, H, \tau^* = \tau_r, m^* = m_0) = \frac{(1 - \tau_r)y_r(1 - \beta q) + ((1 - \tau_p)y_r + (\tau_p - m_0 - C(\tau_p))\bar{y})\beta q}{(1 - \beta)}.$$  

Arguing similarly, let $\phi_r$ be the cost of coup such that $U_r(D, H, \tau^* = \tau_r, m^* = m_0) = U_r(C)$. This equation simplifies to,

$$\phi_r = \frac{(\tau_p \beta q + \tau_r(1 - \beta q) - \tau_N)\theta - (\tau_p - C(\tau_p) - m_0)\delta}{(1 - \tau_N)\theta}. \quad (9)$$

If $\phi < \phi_r$, the poor cannot prevent a coup by appeasing the rich. Combining the above results, there will be a coup on the equilibrium path if and only if $\phi < \min\{\phi_m, \phi_r\}$.

\textsuperscript{25}The payoffs to the rich are inconsequential when the poor is attempting to buy off the military.
Note that the poor are able to commit to either of the above extreme concession policies because $q \gg (1-q)$, so they will have to make concessions very rarely, and thus their expected utilities protecting democracy are higher than the payoffs they expect in a post-coup society.

Now consider the case in which the government is able to avoid a coup by making concessions. What concessions will it make, and to whom? If $\phi_m < \phi_r$ and $\phi \in [\phi_m, \phi_r)$, the government will be able to placate the military, but not the rich. In this case, it will set $\tau^* = \tau_p$, and increase military rent to $m^*$, such that $U_m(D, H, \tau^* = \tau_p) = U_m(C)$, redistributing the remaining tax revenue (if any remains) to the civilian population. This condition can be written as,

$$m^* = \frac{(1 - \phi)(\tau_N - C(\tau_N)) - \beta q m_0}{(1 - \beta q)}.$$  \hfill (10)

Suppose instead that the government is able to make concessions to the rich, but not the military. This case occurs when $\phi_r < \phi_m$, and $\phi \in [\phi_r, \phi_m)$. The poor will now minimize military payments ($m^* = m_0$), and set $\tau^*$ such that $U_r(D, H, m^* = m_0) = U_r(C)$, which is equivalent to,

$$\tau^*(\theta - \delta) + C(\tau^*)\delta = \frac{\theta(\phi(1 - \tau_N) + \tau_N) - \beta q(\tau_p(\theta - \delta) + C(\tau^*)\delta)}{(1 - \beta q)}.$$  \hfill (11)

Finally, let $\phi \geq \max\{\phi_m, \phi_r\}$. Then, the poor can prevent a coup by buying the support of either the military or the rich. Suppose the poor would set tax rate and military rent $\hat{m}$ to buy off the military (in this case, $\tau = \tau_p$), and tax rate $\hat{\tau}$, to buy off the rich (in this case, $m = m_0$). Comparing their payoffs in either scenario, we conclude, using (1), that the poor would choose to foster an alliance with the rich if and only if,
\[ U_p(D, H, \tau = \hat{\tau}_r, m = m_0) \geq U_p(D, H, \tau = \tau_p, m = \hat{m}), \]

or,

\[ \hat{m} \geq \frac{(\tau_p - \hat{\tau}_r)(\theta - \delta)}{(1 - \delta)} - (C(\tau_p) - C(\hat{\tau}_r) - m_0) \quad (12) \]

Figure 3 summarizes the the above results. Formally, the equilibrium of the game is as follows:

**Proposition 1. Equilibrium of the Coup Game**

1. In state \(L\), the poor will set \(\tau = \tau_p\), and \(m = m_0\). There will be no coup.

2. In state \(H\), the following will hold:

   (a) If \(\phi \geq \min\{\phi^*, \phi^{**}\}\), the poor will set \(\tau = \tau_p\) and \(m = m_0\). There will be no coup.

   (b) If \(\phi \in [\max\{\phi_m, \phi_r\}, \min\{\phi^*, \phi^{**}\}]\), then if (12) holds, the poor will lower taxes to \(\tau = \tau^*\), defined by (11), and set \(m = m_0\). Else, they will set \(\tau = \tau_p\), and raise military rents to \(m = m^*\), defined by (10). There will be no coup.

   (c) Suppose \(\phi \in [\min\{\phi_m, \phi_r\}, \max\{\phi_m, \phi_r\}]\).

      i. If \(\phi_m < \phi_r\), the poor will set \(\tau = \tau_p\) and \(m = m^*\), defined by (10). There will be no coup.

      ii. If \(\phi_r < \phi_m\), the poor will lower taxes to \(\tau = \tau^*\), given by (11), and set \(m = m_0\). There will be no coup.

   (d) If \(\phi < \min\{\phi_m, \phi_r\}\), the poor will set \(\tau = \tau_p\) and \(m = m_0\).\(^{27}\) The military and

\(^{26}\)To be precise, if the government faced equal payoffs from either alliance, it would be indifferent between the two. But, this case is not important.

\(^{27}\)Since the government cannot prevent a coup, the tax rate and military rent offered are irrelevant. Even so, I include these for the sake of completeness, arbitrarily assuming that they will not be altered from their low-threat levels.
the rich will carry out a coup.

If \( \phi_r > \phi_m \),

- Concessions to the Military.
- Else, Concessions to the Rich.
- No Coup.

If (12) holds,

- Concessions to the Rich.
- Else, Concessions to the Military.
- No Coup.

No Concessions, No Coup.

Figure 3: Equilibrium strategies in the Coup Game, according to \( \phi \), the cost of a coup.

4.3 An Aside: Military Generals - Patient or Impatient?

Consider the effect of time-discounting on the possibility of military coups along the equilibrium path. For example, in a democratic society, what is the effect of a change in \( \beta \) on the threshold cost of coup, below which the government will not be able to placate the military? From (8),

\[
\frac{\partial \phi_m}{\partial \beta} = \frac{q((\tau_p - C(\tau_p)) - m_0)}{(\tau_N - C(\tau_N))} > 0,
\]

since \((\tau_p - C(\tau_p))\), the military’s most preferred payoff, exceeds \(m_0\).\(^{28}\) Hence, the range of parameters over which democratic governments will not be able to avoid coups increases with \( \beta \). Intuitively, when military generals are more patient, they attach a greater value to future payoffs, and thus the prospect of institutionalized power in the future will make them more likely to push for regime change today.

The above argument reiterates the essence of the difference between enduring de jure power and temporary de facto power. By the Folk Theorem, infinitely repeated Prisoners’

\(^{28}\)It is easy to show similarly that \( \frac{\partial \phi_r}{\partial \beta} > 0 \).
Dilemma games, in which all players are equally powerful, yield cooperative equilibria when players are patient (Osborne, 2004, p. 426-49). However, if only certain players possess the de jure power to guarantee their long term payoffs, a longer “shadow of the future” (Skaperdas, 1997, p.11) may actually increase the likelihood of combat along the equilibrium path.

4.4 Back to the Narrative - A Tale of Three Coups

The events of 1947-58, the formative years in Pakistani history, highlight the importance of the institutionalization of the military within the apparatus of the state. In particular, the Kashmir War of 1948 underscored the strategic instability of the Pakistani state, and, as explained above, contributed to a high level of institutional dependence of the state on the military, corresponding to a large value of $m_0$. From (8), notice that $\phi_m$ increases with $m_0$, because

$$\frac{\partial \phi_m}{\partial m_0} = -\frac{\beta q}{(\tau_N - C(\tau_N))} < 0.$$ Intuitively, this result makes sense - the payoffs to the military under democracy were high, and, since it would only have preferred a coup if there existed the potential for even higher payoffs, the range of parameters over which it would opt for regime change was small. As such, democracy was protected.

The other factor that contributed to the survival of the fragile parliamentary system until 1958 was, precisely, its fragility. From 1951-58, the political landscape in Pakistan remained utterly chaotic, “very much like Hobbes’ state of nature” (qtd. in Kukreja, 1991, p. 59). In relative anarchy, the probability $(1 - q)$ of a high-threat state increases,
and thus the military and the rich can expect concessions more often in the future. Talbot (1998) explains that, from 1951-58, the military was a king-maker in the “game of ‘musical chairs’ which followed Liaquat’s death.” During this period, it was able to regularly secure high ‘concession’ payoffs by replacing at will politicians who did not protect its private interests (p. 146). Thus, it had little incentive to conduct a coup.

What changed in 1958 was the prospect of general elections. In terms of the above argument, elections would have had two effects - they would have loosened the vice-like grip of the military on the institutions of the state by legitimizing democratic processes, and decreased the probability of national crisis by bringing about political stability. Elections, then, would have represented a downward shift in the parameter \( m_0 \), and a rise in \( q \). We know that, as \( m_0 \) decreases, military preferences shift towards regime change; an increase in \( q \) has a similar effect, which in this case extends to the rich as well. Formally, from (11),

\[
\frac{\partial \phi_r}{\partial q} = \frac{\beta (\tau_p - \tau_r)}{(1 - \tau_N)} > 0.
\]

In summary, elections threatened the future payoffs of the military and the rich, and a military takeover was the only way in which they could guarantee these payoffs. Ayub’s coup was heavily backed by the bureaucrats, who also expected to be disenfranchised by general elections. Note that they were natural allies to the Ayub regime, because of their specialization in social organization, an aspect in which, as I have explained, the military is dependent on elite-group support. Jalal (1995) explains the motivations of the coup of 1958 along similar lines:

[T]he civil bureaucracy and the army were unsure of maintaining their dominance within the state.

\[29\] Similarly, we can show that \( \frac{\partial \phi_m}{\partial q} > 0 \).
structure after the general election . . . . Fearing a major realignment of political forces, . . . the army high command in combination with select civil bureaucrats decided . . . to take direct control over the state apparatus (p. 54).

While the downfall of the Bhutto regime was also associated with the partial deinstitutionalization of the military, the manner in which preferences were altered over time was vastly different from the case discussed above. The coup of 1958 was orchestrated in order to preempt an abrupt drop in $m_0$ that was expected to occur after the general elections. In this case, however, Bhutto showed great “zeal in disengaging the military from politics,” seeking to steadily reduce the institutional dependence of the state on the military over the course of his rule (Kukreja, 2003, p. 37). Since the incentives for military intervention rise as $m_0$ falls, Bhutto’s policies increased over time the range of parameters (other than $m_0$) over which a coup would occur.

Although the Bhutto agenda undermined his regime, for a sufficiently low probability $(1 - q)$ of crisis, it was rational. By reducing $m_0$, Bhutto increased civilian control over political institutions. In the absence of a crisis, this policy raised the payoffs to the poor under democracy. If augmented payoffs were expected with high probability, then the willing precipitation of a coup in the case of a crisis was a ‘rational risk,’ because the total expected payoffs to the poor from the Bhutto policy still exceeded their expected payoffs from maintaining a high value of $m_0$ in order to prevent a future coup. Tahir-Kheli recognizes that “this arrangement . . . could succeed so long as the civilian government functioned effectively and no crisis precipitated” (qtd. in Kukreja, 2003, p. 36). The political organization of anti-Bhutto groups in 1977 gave them the opportunity to exercise de facto power in concert with the military, who, given the reduced value of $m_0$, now had
greater incentive to conduct a coup.

Pakistan’s most recent tryst with democracy again exemplifies the role of military payments in the institutional trajectory of a state. Until 1997, the Eighth Amendment ensured that the military was a highly institutionalized arm of the state. It fell out with the political leadership three times, and on each occasion chose to dismiss the government and hold fresh elections, instead of replacing the democratic system. As long as $m_0$ was high, the military was placated by concessions, namely, the dismissal of hostile political leadership, and therefore it did not seek regime change.

Nor was there the absence of opportunities for action. The second Benazir government witnessed a great deal of sectarian violence in Sindh, and a debilitating economic crisis. Even in the face of national upheaval, however, “[t]he military, because of its institutional interest had chosen to support the government despite an open invitation from opposition politician (sic) to intervene” (p. 250). As such, the military served as a political ‘buffer’ - even when elites were able to solve their collective action problems, the military’s interests lay in preserving democracy.

The withdrawal of the Eighth Amendment in 1997, however, altered the institutional landscape considerably, by severely curtailing the power of the military (i.e., by reducing $m_0$). But there is one other important issue that motivated the coup of 1999. It is clear that a leftward shift in $\phi$ along the spectrum of values described in Figure 3 increases the incentives of both the military and the rich to organize a coup. This result can be generalized - a leftward shift in the cost of regime change will always make it more attractive in the eyes of disenfranchised populations.

Repeatedly in Pakistani history, military failure against India has been an especially
powerful focal point for anti-establishment sentiments. War induces a state of high threat, and a lost war exacerbates matters considerably, yielding a low value of $\phi$\textsuperscript{30}. The Kargil episode provided an opportunity for relatively efficient collective action, and with the annulment of the Eighth Amendment, General Musharraf conducted a coup because the military’s preferences had shifted towards dictatorship.

4.5 The Revolution Game

Although my work focuses on military coups and civil-military relations in democracy, any study of military behavior must also examine the role of the military as administrator in authoritarian dictatorships. Once the military and the rich have overhauled democratic institutions, under which ranges of parameters will they maintain power? Conversely, how are the poor able to win back their franchise?

My characterization of strategic interactions between interest groups in nondemocratic regimes is a simplified version of the theory of Acemoglu and Robinson\textsuperscript{31}, and largely parallels the earlier analysis, except that it is free from the complexity introduced in the Coup Game by the consideration of two disenfranchised groups.

Assume that revolution leads to democratization\textsuperscript{32}. Revolutions take place during national crises, when the poor are able to solve their collective action problems efficiently.

\textsuperscript{30}I will later show that failed military expeditions have been the downfall of democratic and nondemocratic regimes in Pakistan. Perhaps the intense antagonism towards India, shared by large sections of the population, makes military defeat at Indian hands a particularly powerful agent of collective action.

\textsuperscript{31}The authors’ work focuses on the means of democratization, while mine is centered on the nature of the military as an institution of the state. Therefore, while they provide an elaborate theory of democratization, I do not.

\textsuperscript{32}Acemoglu and Robinson view democratization as a type of concession to the poor, granted in order to prevent revolution. For the sake of simplicity, however, I take the former to be a product of the latter.
The government may attempt to prevent regime change by making concessions, but, as before, these concessions will only be credible be as long as the crisis endures. The poor will thus be able to guarantee their long-term payoffs only through a shift to democracy, in which they have de jure power. Hence, when the cost of revolution is sufficiently low, the poor will opt for regime change as soon as they acquire the de facto power to enforce it, that is, as soon as a high-threat state occurs.

Figure 4: Decision-tree for the Revolution Game in any time period \( t \). Again, \( i \in \{p, r, m\} \), so that the given payoffs describe the expected values for each player.

Figure 4 illustrates the strategic structure of the game. If nature is in state \( L \), as before, there will be never be a revolution on the equilibrium path. Hence, the authoritarian government will set \( \tau = \tau_N \) and \( m = (\tau_N - C(\tau_N)) \). For \( i \in \{p, r\} \), the payoffs to the players in state \( L \) are given by,

\[
U_i(N, L) = (1 - \tau_N) y_i + \beta(qU_i(N, L) + (1 - q)U_i(H))
\]

\(^{33}\)I abuse notation slightly by repeating the expressions \( U_i(H) \) and \( U_m(H) \). It is fairly clear, however, that in this case, I am referring to the expected payoffs in state \( H \) under nondemocracy, while I was previously discussing the expected values in the high-threat state under democracy. Further, the coup that brought the authoritarian regime into power was costly, but I normalize by \( (1 - \phi) \), because the cost of that coup affected all players alike.
\[ U_m(N, L) = (\tau_N - C(\tau_N))\bar{y} + \beta(qU_m(N, L) + (1 - q)U_m(H)), \]

where \( N \) indicates that the state is not democratic.

Consider the more interesting case, that of state \( H \). We may have a revolution along the equilibrium path, and thus we can write,

\[ U_i(H) = (1 - \rho)U_i(N, H) + \rho U_i(R), \]

for all players, where \( R \) indicates that a revolution has taken place. We can thus write,

\[ \rho = \begin{cases} 
0, & \text{if } U_p(N, H) \geq U_p(R) \\
1, & \text{if } U_p(N, H) < U_p(R). 
\end{cases} \]

Suppose the government prevents a revolution in the high threat state by promising greater redistribution to the poor. That is, let the government commit to a tax rate \( \tau^{**} \) and military rent \( m^{**} \geq m_0 \), redistributing the remaining tax revenue equally amongst the citizens. Then, for \( i \in \{p,r\} \), the players’ payoffs can be solved simultaneously as follows:

\[ U_i(N, H) = \frac{((1 - \tau^{**})y_i + (\tau^{**} - m^{**} - C(\tau^{**}))\bar{y})(1 - \beta q) + ((1 - \tau_p)y_i + (\tau_p - m_0 - C(\tau_p))\bar{y})\beta q}{1 - \beta} \]

\[ U_m(N, H) = \frac{(m'(1 - \beta q) + m_0\beta q)\bar{y}}{1 - \beta}. \]

On the other hand, if the government is unable to preclude a revolution, assume, as before, that the players will expect the ideal policy of the new ruling group (in this case, the poor) to be followed in all subsequent time periods. The payoffs under revolution will then be,

\[ U_i(R) = \frac{(1 - \mu)((1 - \tau_p)y_i + (\tau_p - m_0 - C(\tau_p))\bar{y})}{1 - \beta} \]
$U_m(R) = \frac{(1 - \mu)m_0\bar{y}}{(1 - \beta)}.$

How do the parameters of the game influence the possibility of revolution along the equilibrium path? The simplest case is once more that in which the cost of revolution is so high that the poor will choose not to revolt in a high threat state even if the military regime does not make any concessions. That is, suppose the government sets $\tau^{**} = \tau_N$ and $m^{**} = (\tau_N - C(\tau_N))$. The payoffs of the poor will then be,

$$U_p(N, H, \tau = \tau_N, m = (\tau_N - C(\tau_N))) = \frac{(1 - \tau_N)y_p}{(1 - \beta)}.$$

Let $\mu^*$ be the cost of revolution such that $U_p(N, H, \tau = \tau_N, m = (\tau_N - C(\tau_N))) = U_p(R).$\(^{34}\) Therefore,

$$\mu^* = \frac{\tau_p(\theta - \delta) + \tau_N(1 - \theta) - (m_0 + C(\tau_p))(1 - \delta)}{(1 - \tau_p)(1 - \theta) + (\tau_p - m_0 - C(\tau_p))(1 - \delta)}.$$

Thus, when $\mu \geq \mu^*$, there will be no coup, and no concessions will be made. When the $\mu < \mu^*$, however, the government will need to placate the poor in state $H$ in order to protect its franchise. As before, as long as these concessions do not change the distribution of de jure power in society, they will only be credible as long as the threat of revolution remains high. The best offer that the government can commit to is naturally the most favored income distribution of the poor - a tax rate of $\tau_p$ and military rents of $m_0$. In this case, the expected utility of the poor is given by,

$$U_p(N, H, \tau^{**} = \tau_p, m^{**} = m_0) = \frac{((1 - \tau_p)y_p + (\tau_p - m_0 - C(\tau_p))\bar{y})(1 - \beta)q + (1 - \tau_N)y_p\beta q}{(1 - \beta)}.$$

The above offer will disincentivize a revolution from the perspective of the poor if the cost of revolution is greater than some threshold value $\mu_p$, which solves the equation

\(^{34}\)Assume that, when faced with equal payoffs, the poor will opt not to revolt.
\( U_m(N, H, \tau^{**} = \tau_p, m^{**} = m_0) = U_p(R, \mu = \mu_p) \). This condition is equivalent to,

\[
\mu_p = \frac{\beta q(\tau_p(\theta - \delta) + \tau_N(1 - \theta) - (m_0 + C(\tau_p))(1 - \delta))}{(1 - \tau_p)(1 - \theta) + (\tau_p - m_0 - C(\tau_p))(1 - \delta)}.
\]

If \( \mu < \mu_p \), the cost of collective action to the poor is so low that the government cannot prevent a revolution along the equilibrium path.

Finally, suppose \( \mu \in [\mu_p, \mu^* \). Then, revolutions will be precluded through concessions, and so we must determine the exact nature of the concessions made in this intermediate case. Clearly, the government will make concessions only to the extent that \( U_p(N, H) = U_p(R) \). But, these concessions could be made in two ways, namely, by increasing the tax and by decreasing the military rent. While the former will hurt the rich, the latter will reduce the payoffs of the military. Since the exact nature of concessions is not central to my work, I simply assume that the military has is the more powerful ruling partner, and thus the coalition will first attempt to placate the poor by increasing the tax rate until \( \tau^{**} = \tau_p \), which is the ideal tax rate of the poor for any given set of concessions. Only if further concessions are required will the government reduce \( m \), until the extreme case, \( m = m_0 \), is achieved.\(^{35}\) Explicitly, the government will adopt the following strategy. If:

\[
U_p(N, H, \tau^{**} = \tau_p, m^{**} = (\tau_N - C(\tau_N)) \geq U_p(R),
\]

set \( \tau^{**} \) such that \( U_p(N, H, m^{**} = (\tau_N - C(\tau_N)) = U_p(R) \), or,

\[
\tau^{**}(\theta - \delta) - C(\tau^{**})(1 - \delta) = \frac{(\theta - \delta)(\tau_p - \tau_N \beta q) - \mu((1 - \theta)(1 - \tau_p))}{(1 - \beta q)}
\]

\[
\quad + \frac{(1 - \delta)(\tau_N - C(\tau_N)(1 - \beta q) - (1 - \mu)(C(\tau_p) + m_0))}{(1 - \beta q)}.
\]  

\(^{35}\)Properly speaking, the manner in which concessions are made could be assumed to depend on \( \alpha \). This case is too complicated for our purposes, and is not very informative.
Else, set $\tau^{**} = \tau_p$, and $m^{**}$ such that $U_p(N, H, \tau^{**} = \tau_p) = U_p(R)$, which gives,

$$m^{**} = \frac{(1 - \theta)(\mu - \tau_N \beta q) + m_0(1 - \mu)(1 - \delta) - (\beta q - \mu)((\tau_p)(\theta - \delta) - C(\tau_p)(1 - \delta))}{(1 - \delta)(1 - \beta q)}.$$  \(15\)

As in the Coup Game, both the military and the rich will be able to commit to any of the concession scenarios described above, because $q \gg (1 - q)$, and so their expected payoffs from dictatorship exceed those from revolution.

Figure 5 describes the equilibrium of the game, which is defined formally as follows:

**Proposition 2. Equilibrium of the Revolution Game**

1. In state $L$, the government will set $\tau = \tau_N$, and $m = (\tau_N - C(\tau_N))$. There will be no redistribution of tax revenues to civilians. There will be no revolution.

2. In state $H$, the following will be true:

   (a) If $\mu \geq \mu^*$, the government will set $\tau = \tau_N$ and $m = (\tau_N - C(\tau_N))$. There will be no revolution.

   (b) If $\mu \in [\mu_p, \mu^*)$, then if (13) holds, the government will set $\tau = \tau^{**}$, defined implicitly by (14), and $m = (\tau_N - C(\tau_N))$. Else, the government will set $\tau = \tau_p$, and $m = m^{**}$, given by (15). There will be no revolution.

   (c) If $\mu < \mu_p$, the government will set $\tau = \tau_N$ and $m = (\tau_N - C(\tau_N))$. There will be a revolution, which will result in democratization.

**4.6 Military Rule in Pakistan**

The diverse events that occurred over the 13 years of military rule from 1958-71 justify many of the theoretical arguments made above. The capitalistic nature of Ayub’s policies
Revolution Concessions,  
No Revolution

Concessions,  
No Revolution

No Concessions,  
No Revolution

Figure 5: Equilibrium strategies in the Revolution Game, according to \( \mu \), the cost of revolution.

exacerbated economic inequality, causing a rightward shift in \( \theta \). In the long-run, these policies proved self-undermining, because

\[
\frac{\partial \mu^*}{\partial \theta} = \frac{(\tau_p - \tau_N)((1 - \tau_p)(1 - \theta) + (\tau_p - m_0 - C(\tau_p))(1 - \delta))}{((1 - \tau_p)(1 - \theta) + (\tau_p - m_0 - C(\tau_p))(1 - \delta))^2}
\]

\[
+ \frac{(1 - \tau_p)(\tau_p(\theta - \delta) + \tau_N(1 - \theta) - (m_0 + C(\tau_p))(1 - \delta))}{((1 - \tau_p)(1 - \theta) + (\tau_p - m_0 - C(\tau_p))(1 - \delta))^2} > 0,
\]

and thus the range of parameters over which concessions were required to prevent a revolution increased over time.\(^{36}\) Note here that the threshold value of interest is \( \mu^* \), not \( \mu_p \), since Ayub’s reign did not end in revolution.\(^{37}\) In fact, Ayub’s resignation was a concession, rather than a move towards democratization, since it did not affect the political institutions of the state in an enduring manner.

The Basic Democracies Order and the introduction of a new Constitution during the Ayub era were commitments to increased representation in political processes. Importantly, though, neither commitment proved credible, because, in the long run, neither institution tipped the balance of de jure power in Pakistan towards the masses. Nor could they conceivably have done so, because participatory political institutions are the

\(^{36}\)We do not have information of the inner workings of the Ayub regime, in terms of his interaction with his elite-group supporters. Hence, it is difficult to say with any certainty whether the shift in inequality was exogenous, a ‘rational risk’ (explained above), or endogenous, caused by the need to placate the rich due to a shift in bargaining power within the ruling alliance. If the change was endogenous, one might explain it on the basis of “quasi-parameters,” which I discuss further in my concluding comments. For a detailed exposition on quasi-parameters, please refer (Greif and Laitin, 2004).

\(^{37}\)It is easy to see that \( \mu_p \) increases with \( \theta \).
anathema of authoritarian dictatorships. Talbot (1998) notes that, under the Basic Democracies Order,

Although the urban population was included in the newly-instituted union committees, the scheme was primarily designed . . . to create a rural power-base for the regime by establishing a new class of collaborators (the wealthy landlords) in the countryside (p. 154-5).

Similarly, when Yahya Khan, Ayub’s successor, promised (and held) general elections, his true commitment to democracy was highly dubious. His move to retain a military veto over constitutional documents passed in the Legislative Assembly signaled his desire to safeguard the institutional interests, and the de jure power, of the military.

Finally, military setbacks against India were critical in the downfall of both Ayub and Yahya. I have argued above that wars bring about a situation of high threat, by providing a universal reason for discontentment amongst disenfranchised populations. The failed attack on Kashmir of 1965 created a crisis for the Ayub government. The poor were able to solve their collective action problems, and, given the aforementioned increase in inequality, they posed a credible threat of revolution, which forced Ayub to resign. The fact that Ayub was finally undone by the very constituencies that he had sought to suppress, namely, students and industrial labor, affirms the self-undermining nature of his regime.

The scale of the Bangladesh debacle of 1971, however, made the forces of revolution inexorable, so that, unlike Ayub, Yahya was unable to preclude democratization with compromises in 1971. Talbot (1998) notes that, “[d]uring the course of the two-week war, Pakistan lost half its navy, a third of its army and a quarter of its air force” (p. 212). Therefore, the crisis of 1971 induced a much lower value of \( \mu \) than did the events
leading up to Ayub’s resignation.

As an illustration of the extent to which the Pakistani masses were able to solve their collective action problems in 1971, note that even the press unambiguously criticized the Yahya regime; an Urdu paper based in Lahore proclaimed “‘Aik awaz, aik elan: Quam ka katil Yahya Khan’ (One voice, one declaration: Yahya Khan is the murderer of the nation)” (Talbot, 1998, p. 212-3). Only in a situation of extreme hubris would publishers have taken such liberties with a military dictator. In light of the above, the theory clearly explains why democracy was restored in Pakistan in 1971.

A strategic analysis of the Zia regime is restricted by the fact that it ended not as a result of a national crisis, but with the General’s death.\textsuperscript{38} Even so, two important issues deserve further attention.

First, Zia’s embrace of Islam may be attributed to his recognition of the \textit{ulema}\textsuperscript{39} as an elite group with tremendous power in terms of social organization. This observation supports my initial hypothesis that elite group support plays a vital role in military regimes. Moreover, we know that the Zia regime did not fall despite many instances of massive sectarian violence. One might argue that the ethnic rifts caused by Zia’s Islamization actually perpetuated his regime by creating a deeply divided polity.\textsuperscript{40} This probably raised the cost of collective action, $\mu$, above its threshold value, $\mu_p$.

\textsuperscript{38}My model cannot explain why the military chose to democratize after the death of the General. Conceivably, other generals did not have the support of the Islamists, or lacked his ruthlessness, which may have raised the cost of collective action to the masses. Such personal factors are beyond the scope of my work.

\textsuperscript{39}The Muslim clergy is often referred to as the \textit{ulema}.

\textsuperscript{40}There is no evidence to suggest that Zia intentionally pursued a 'divide-and-rule' policy.
5 Conclusion

The objective of my work was to understand the role of the military, an essential institution of the state, in intra-state political dynamics. Building on the model of Acemoglu and Robinson, which considers strategic interactions between the poor and the rich, I innovated by adding the military as a third strategic player. While this addition does not alter the exposition substantially in the case of nondemocratic regimes (which are ruled by a military-elite alliance), it significantly enhances our understanding of democracy.

In particular, a three-player model reveals the diversity of policy options available to a democratic government when it attempts to preclude regime change. As long as the government can safeguard the institutional interests of the military, democracy will be sustained irrespective of the preferences of the elites, because elites lack the power to oust the existing regime single-handedly.

The above proposition is highlighted vividly in the case material. During the political chaos of the early 1950s and the economic crisis of 1996, the Pakistani military opted against intervention, because it wielded a great deal of power within the democratic structure. Therefore, although the elites had acquired de facto power, they were unable to exercise it in the absence of military support. Since it does not account for the military, the theory of Acemoglu and Robinson does not sufficiently explain the survival of democracy in these instances. As such, both theory and history suggest that, by treating the military as a separate entity, we are able to draw deeper, more incisive conclusions about the destiny of democracy in a given state.

There are a number of promising areas for future research. First, my model does not
account for endogenous institutional change. In the given theory, institutions transform at discrete moments in time, as a result of exogenous parameter shocks. North (1991) argues, however, that institutions “evolve incrementally, connecting the past with the present and the future” (p. 97). In terms of my case-study, Kukreja (2003) believes that every coup in Pakistan facilitated future military intervention by undermining democratic institutions over time.

Endogenous institutional change is probably best tackled by viewing political institutions as “quasi-parameters,” which vary in the long run, but are taken as fixed in the short run, because their variation over time is small enough to be unobservable (Greif and Laitin, 2004). The incorporation of quasi-parameters into a theory similar to mine would greatly enrich our understanding of the influence of military behavior on the institutional trajectory of states.

Furthermore, my work assumed a closed and static economy. The effects of economic growth and globalization on civil-military relations are important areas for further research. In this regard, Acemoglu and Robinson (2006) consider the implications of globalization for democracy in a two-player contest between the elites and the poor - it may be possible to extend their theoretical framework to include the military.

Finally, my model assumes the exogeneity of the bargaining arrangement in military-elite coalitions. The exact nature of these coalitions is an important area for further research. Do the size and relative wealth of the elite class affect its clout within the coalition? Is $\alpha$, the bargaining power of the military, a quasi-parameter? What sort of exogenous shocks would cause a sudden shift in $\alpha$? An analysis of these questions would shed much light on the internal dynamics of authoritarian regimes.
In conclusion, a theory of military behavior is critical for our conception of the role of the military in the organization of a stable democracy. By presenting the military as an independent, rational actor, my model demonstrates that military behavior is neither unpredictable nor abstruse; indeed, the military is not a ‘Strangelovian arm’ of the state. The demystification of the military simultaneously forwards our understanding of economics and history, and develops a wider perspective on present-day attempts at democratic consolidation in the Third World.
6 Bibliography


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