Political-Economy of Conflicts and Institutions

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The political economy of (some) institutions

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- When does the people’s will have an influence on political leadership?

Tunisia - relatively smooth transition to more representative government
Egypt - more violent and less political concessions
Libya - civil war and regime collapse
Syria - civil war and regime still in place
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- What are the relevant actors to analyze the problem?
Outline

1. Information cascades literature
2. Cooptation vs repression literature
3. The military as a separate actor
4. Some research ideas
Traditional approaches: Elites vs non-elites

- some powerful individuals control the government, repress the masses, and extract rents
- the dissatisfied masses attempt modifying the situation

No village has ever revolted merely because it was hungry (De Nardo, 1985: 17)

XIX century Russian revolutionary journal Narodnya Volya (Peoples Will)
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1. Information cascades literature

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- Alternative approach, revolutions are detrimental with some probability: Ellis and Fender 2010
Ellis and Fender 2010

- Two states of the world: high and low destruction revolutions
- Agents receive individual signals on the true state of the world
- Sequentially and individually decide to rebel or not
- Rebelling carries no “effort” cost
- To deter rebellion, franchise extension (wealth transfer)
- If a sequence of individuals revolt $\Rightarrow$ Cascade is generated

Findings:
- Revolution more likely to occur if
  1. Revolution unlikely to be destructive
  2. The tax system is inefficient $\Rightarrow$ more costly to deter rebellion
  3. Higher inequality
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Information cascades literature: **limitations**

- The literature is only concerned with transition from dictatorship to democracy
- The elites are seen as a monolithic block
- It is assumed that large scale protests are sufficient to operate transition to democracy
Information cascades literature
Information cascades literature: **limitations**

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- The elites are seen as a monolithic block
- It is assumed that large scale protests are sufficient to operate transition to democracy
- Revolutions are often followed by periods of civil unrest, even civil wars.
Information cascades literature: **future research**

- better understand the consequences of the new information technologies (Twitter, Blackberry, . . .)
  - helps overcoming coordination failures
  - if total replacement of previous technology, government can control the unique communication tool (Bohannon 2012)
- What are the factors *sparking* protests?
  - Education and absence of economic opportunities (Campante and Chor 2012)
2. Models of Cooptation vs Repression

First view: Elites vs Non-Elites

- Wintrobe (1998): Loyalty vs Repression
- Acemoglu and Robinson’s (2005) theory (and their outsprings): extension of the franchise to overcome commitment problem
- Divide-and-Rule politics:
  - Acemoglu, Robinson and Verdier (2004)
  - Padro i Miquel (2007)
  - De Luca, Sekeris and Vargas (2011)
Second view: Elites vs Elites

- Bueno de Mesquita et al. (2003): Rights vs cooptation of ‘politically relevant’ players
- Egorov and Sonin (2011): Incentives to appoint incapable subordinates
- Debs (2007): The Big Shuffle
- Sekeris (2011): Uncertainty in the selection of supporters
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Third view: Group conflicts

- Esteban, Morelli and Rohner (2012)

- Previous class of games assume that one’s army is perfectly controlled
- ATV explicitly model the decisions of the military
- Principal-Agent model:
  - government (elites or civilian): Principal
  - agent: military
- Existing literature on Civilian-Military relationships focuses on consequences of such relationships on international relations (Feaver 2003, Adam and Sekeris 2011)
- ATV focus on how they shape institutions
A Theory of Military Dictatorships. 
Acemoglu, Ticchi, and Vindigni (2010)

Actors:

- Elites (high skilled $H$): $n < 1/2$

$$U_{H,0} = \sum_{t=0}^{\infty} \beta^t c_{H,t}$$
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The military as separate actors

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    U_{L,0} = \sum_{t=0}^{\infty} \beta^t (c_{L,t} + G_t)
    \]
  - Soldiers (military): $\bar{x}$
    \[
    U_{M,0} = \sum_{t=0}^{\infty} \beta^t c_{M,t}
    \]
States of the world:

- Democracy (D)
  - Citizens (majoritarian) decide the tax (hence public good)
  - By construction, no army
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- **Elite control (E)**
  - Elites decide the tax rate and public good
  - Elites decide size of military (0 or $\bar{x}$)
  - Elites decide military wages
  - if $x = \bar{x}$, military may attempt coup
  - if $x = \bar{x}$, and no coup attempt, military represses citizens or not
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- **Military regime (M)**
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  - Military decide army size
  - Military decide military wages
Timing

- Infinite time horizon game
- In each time period:
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1. Army and fiscal policy:
   - taxes
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Look for Markov Perfect Equilibria
Preliminary analysis: **Absorbing states**
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- **Military junta**, since once in power:
  - elites have no possibility of removing the military
  - citizens have no possibility of removing the military
  - military have no incentives in downsizing their army
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⇒ **non-absorbing states:**

- Elites control
- Transitional democracy (leading to either D or M)
The military as separate actors

Elite control:
Military coups and repression

Coups succeed with probability $\gamma$ $\Rightarrow$ Transitional democracy drives the game to an absorbing state

Repression succeeds with probability $(1 - \pi)$ $\Rightarrow$ Elite domination (non-absorbing state) perpetuates only if military present do not attempt a coup decide to repress the citizens repression succeeds
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**Elite control:** Military **coup**s and **repression**

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$\Rightarrow$ Elite domination (non absorbing state) perpetuates *only if*
  - military present
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Transitional Democracy
The military as separate actors

Elite control

\[ a_t = 0 \quad (x_t = 0) \]
\[ \tau_t, \omega_t, G_t \]
\[ s_t = E \]
Elite

\[ a_t = 1 \quad (x_t = \bar{x}) \]
\[ \tau_t, \omega_t, G_t \]
Military

\[ s_{t+1} = D \quad \text{Coup fails} \]
\[ Pr = 1 - \gamma \]
Nature

\[ s_{t+1} = M \quad \text{Coup succeeds} \]
\[ Pr = \gamma \]

No coup
\[ \psi_t = 0 \]
Military

No repression
\[ \rho_t = 0 \]

Repression
\[ \rho_t = 1 \]
Nature

Repression fails
\[ Pr = \pi \]

Repression succeeds
\[ Pr = 1 - \pi \]

\[ s_{t+1} = E \]

The military as separate actors

The Political Moral Hazard Problem

Elites need military to stay in power

Once the army is staffed, it can renege on any promise made \textit{ex-ante} and attempt a coup

If military attempts a coup, elites are always ousted forever

To avoid this, elites need to remunerate the military accordingly to deter coup attempts

$\Rightarrow$ \textquotedblleft Efficiency wage \textquotedblright
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\[ \Rightarrow \text{“Efficiency wage”} \]
Analysis

1. First solve the game for the absorbing states
2. Then solve the game for the only non-absorbing state
Democracy
Democracy

- The (poor) median decides tax policy
- Taxing is distortive, so optimal tax $\tau < 1$
- The ‘would-be militaries’ are poor
**Democracy**

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**Military regime**
Democracy

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Military regime

- The military maximize their wages (i.e. they do not benefit from the public good)
The military as separate actors

Transitional Democracy
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**Transitional Democracy**

- To be under a *transitional democracy*, in $t - 1$ there was:
  - no military coup attempt
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  1. no coup attempt $\Rightarrow$ Democracy
  2. coup attempt $\Rightarrow$ Military regime or Democracy
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- No-coup constraint, $w^{TD}$ s.t.:
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\[
w^{TD} + \beta V^{poor} (D) \geq \beta \left[ \gamma V^{military} (M) + (1 - \gamma) V^{poor} (D) \right]
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\[
w^{TD} \begin{pmatrix}
\beta \\
\gamma \\
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It is shown that *if* this wage is feasible, *then* always attributed.
Transitional Democracy

\[ w^{TD} \geq \beta \gamma \left[ V^{military}(M) - V^{poor}(D) \right] \]
The military as separate actors

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\[ w^{TD} \geq \beta \gamma \left[ V^{\text{military}}(M) - V^{\text{poor}}(D) \right] \]

- When is this wage feasible?
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  - Coup is destructive, hence inefficient, yet may be unavoidable because of commitment problem.
The military as separate actors

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- When is this wage feasible?
  - Coup is destructive, hence inefficient, yet may be unavoidable because of commitment problem
  - More income inequality \( \Rightarrow \) lower payoffs under democracy \( \Rightarrow \) higher incentives for a coup
Elite control - Oligarchy
The military as separate actors

**Elite control - Oligarchy**

**Two (non-dominated) strategies:**

1. no army, rent extraction, and democratization
2. rebellion-deterring army and high wage to prevent coups
Elite control - Oligarchy

Two (non-dominated) strategies:

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rebellion-deterring army and low wage to the military conducive to coups is a strategy which is always dominated by the democratization strategy since:

- democratization saves the coup-related efficiency losses (destruction and foregone production)
- the military wage under the military rule, the taxation is higher than under democracy (because the median internalizes the consequences of taxing himself, while the military do not tax themselves)
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- Determination of the efficiency wage that secures
  - no coups
  - repression

\[ V^\text{military}(E|\text{repression}) = V^\text{military}(E|\text{coup}) \]

\[ \Rightarrow w^P = \beta \gamma w^M + \beta (1 - \gamma) u^{\text{poor}}(D) \]

\[ \Rightarrow w^P \left( \begin{array}{c}
\beta, \\
\gamma, \\
w^M, \\
u^{\text{poor}}(D)
\end{array} \right) \]
Noteworthy findings
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1. If elites pay an efficiency wage, but repression fails, the wage the civilian government will have to pay (in subsequent stage) is even larger
   - **Commitment problem**: the forthcoming civilian government will dissolve the army with certainty
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1. If elites pay an efficiency wage, but repression fails, the wage the civilian government will have to pay (in subsequent stage) is even larger
   - **Commitment problem**: the forthcoming civilian government will *dissolve* the army with certainty

2. Higher *income inequality* most likely to favour *oppressive regimes*
   - The military are less willing to find themselves in a democracy ⇒ lower efficiency wage
   - Greed effect ⇒ the military are more attracted by a junta ⇒ higher efficiency wage
   - Under democracy the elites get dispossessed more ⇒ repression becomes more attractive
Interesting extension

In baseline model, under democracy no army is required because of external threat:

\[ x = \bar{x} \Rightarrow \text{no invasion} \]

\[ x = 0 \Rightarrow \text{invasion succeeds} \]

Threat disappears every period with probability \( \lambda \).

Implications:

1. Higher external threat in a transition to democracy \( \Rightarrow \) democratization more likely through credible commitment of necessitating an army in the future.

2. Democratic consolidation could be more likely with a stronger military. A stronger military demands higher "efficiency wages" (under E). If external threat is high, the citizens credibly commit to pay efficiency wages in the future. Stronger military have increased incentives not to wage a coup.
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   - A stronger military demands higher “efficiency wages” (under E)
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Limitations of ATV

1. Unidirectional vision of institutional evolution: From dictatorship to democracy
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2. Dichotomic variables
   - democracy, military regime, or elites’ dictatorship
Limitations of ATV

1. Unidirectional vision of institutional evolution: From dictatorship to democracy

2. Dichotomic variables
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3. Many exogenous and non-interrelated variables:
   - exogenous probability of coup success
   - exogenous probability of repression success
   - exogenous threat (i.e. invasion by neighbour)
Follow-up of the AVT 2010

“Persistence of Civil Wars” AVT, 2011
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Actors

- Elites
- Non-Elites
  - Citizens
  - Military
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Actors
- Elites
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States of the world
- Democracy (no threat...)
- Military regime (no threat...)
- *Civil War*: when elites control the country, threat
**AVT 2011**

Elites (i.e. Civil War) choose the army size:

- **low**: some \( > 0 \) probability of civil war persisting, coup impossible
- **intermediate**: civil war stops, military can be ‘reformed’ in \( t + 1 \)
- **high**: civil war stops, military cannot be ‘reformed’
The military as separate actors

**AVT 2011**

Elites (i.e. Civil War) choose the army size:

- **low**: some $> 0$ probability of civil war persisting, coup impossible
- **intermediate**: civil war stops, military can be ‘reformed’ in $t + 1$
- **high**: civil war stops, military cannot be ‘reformed’

**Incentives**

- **low army** is a trade-off between not having a (costly) army in the future, and facing a higher probability of civil war persistence
- **high army** is a trade-off between higher military expenditures, and lower probability of coup
AVT 2011 - Findings

1. **Small** army more likely under:
   - low probability of civil war persistence

2. **Intermediate** army (and thus coups) more likely under:
   - high probability of civil war persistence with low army
   - high efficiency wage

3. **Intermediate** army more likely under:
   - high probability of civil war persistence with low army
   - low efficiency wage
The military as separate actors

Other papers explicitly modelling the incentives of the military

- Besley and Robinson, 2010
- Civilian decides the size of the army given it increases power of government (continuous variable)
- Army can stage a coup

Results:
1. If the government cannot commit on future wages to the military, the equilibrium army will be inefficiently low
2. Even if the government can commit, the first-best solution from the government's perspective (i.e. paying exit option to soldiers) is never implemented: too small army.
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Adam and Sekeris, 2011: potential benefits of military and government being different actors
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- Typical model of (IR) conflicts using Contest Success Functions
- The military (privately) decides its fighting capacity
- the government decides whether or not to make use of the army
- imperfect (but almost perfect) communication between Government and Military
- **No possibility of military coup** (perfectly aligned incentives)
The military as separate actors

Interpretation of division of decisions

1. Presidents/Governments may not have perfect information about their (relative) military might

- Literature on civilian-military relations (Huntington, 1991; 1996, Desch, 1999; Feaver, 2003)
- Main messages conveyed:
  - separation of the 2 bodies
  - potential disagreements on success probability & cost of missions (Vietnam War)
  - intelligence not always relied upon (Saddam’s alleged WMD - Jervis, 2010)
  - could even have shirking of the military in principal-agent framework (Feaver, 2003)
**Interpretation of division of decisions**

2. **Citizens/voters have imperfect knowledge of their country (relative) military might**

- When governments are accountable (democracies)
- Stock of **weapons, technology and army efficiency** however, are **not** chosen by public, and are not public knowledge (secrecy for national security)!
- Public opinion affects policy (Page and Shapiro, 1983)
  - whether the public opinion is “unstructured” - early literature
  - or if it is formed by rational judgment about foreign policy events
- Public opinion on foreign policy is formed on cues/observable information (Mueller, 1971; Nincic, 1997; Gelpi, 2010)
(benchmark) Model of Guns and Butter

Timing of the game:

1. Players simultaneously choose their individual amounts of guns \((g^i, g^j)\), and of butter \((x^i, x^j)\).

2. Players simultaneously decide whether or not to attack their foe. If either or both attack, we have war, otherwise we have peace.
The military as separate actors

Not arming is unstable

Utility of player $i$ under war: $U^{iw} = p(g^i, g^j)C(x^i, x^j)$

A situation where no-one arms cannot be stable

With “common” assumptions on the contest success function, marginal utility of arming for player $i$:

$$\frac{\partial U^{iw}}{\partial g^i} = \frac{\partial p(g^i, g^j)}{\partial g^i} C(r^i - g^i, r^j) - p(g^i, 0) \frac{\partial C(r^i - g^i, r^j)}{\partial g^i} > 0$$

$$\lim_{g^i \to 0 | g^j = 0} = \infty$$

$\Rightarrow (0, 0)$ is not stable, arms race logic
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⇒ $(0, 0)$ is not stable, arms race logic

With very inefficient fighting/very efficient production technologies $(0, 0)$ is stable
The military as separate actors

War is inevitable

If contestants armed, war ensues

Utility of player $i$ under war: $U^{iw} = p(g^i, g^j)C(x^i, x^j)$

Utility of player $i$ under peace: $U^{ip} = \lambda^i C(x^i, x^j)$

\[\text{where } \lambda^i \text{ defines the property rights which are not enforced}\]

Take any pair $(x^{i*}, x^{j*})$; if player $i$ prefers peace:

\[p^* C(x^{i*}, x^{j*}) < \lambda C(x^{i*}, x^{j*})\]

$\Rightarrow$ player $j$ prefers going to war!

\[p^* < \lambda \iff (1 - p^*) > (1 - \lambda)\]
Proposition: When two centralized states interact in a “Guns and Butter” model, the status quo is always contested and war is the unique Nash equilibrium.

- Standard result in the literature (Skaperdas 1992):
  - Equilibrium exists
  - Equilibrium is unique
  - At equilibrium War
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How can peace emerge with non-centralized states? (i.e. when communication between Civilian and Military is imperfect)
This paper: hypotheses
This paper: hypotheses

1. breaking down of the decision-making process: Military (chooses guns levels) and Civilian (chooses fight or concede)
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2. private information: Civilian does not observe Military’s action

3. imperfect (but almost perfect) communication between Military and the Civilian
Imperfect information hypothesis not sufficient

- If we keep the benchmark setting, *nothing* changes!
- For the decision-maker who expects to be “stronger”, in expectation he’s always better off by attacking:
  1. if opponent armed and planning to attack, own decision does not make a difference
  2. if opponent armed and not planning to attack, better to attack than not since $p > \lambda$
  3. if opponent unarmed, always better attacking

$\Rightarrow$ War is the unique outcome
Results

1. If two countries with Civilian government interact: Peace is always a (Nash) equilibrium
2. If a Civilian government and a Military government interact: Peace can be a (Nash) equilibrium
3. If two Military governments interact: Peace is never an equilibrium

Implications

1. At equilibrium, arming levels are lower than with perfect information ⇒ efficiency gain
2. Equilibrium with imperfect information Pareto dominates equilibrium with perfect information if endowments not too dissimilar
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3. Military regimes have lower expected payoffs to Elites or Democracy
The military as separate actors

“orthogonal” research ideas
The military as separate actors

“orthogonal” research ideas

Apply the same logic to

1. patent races (R&D and marketing departments)
“orthogonal” research ideas

Apply the same logic to

1. patent races (R&D and marketing departments)
2. legal contests (Lawyer and client)
“orthogonal” research ideas

Apply the same logic to

1. patent races (R&D and marketing departments)
2. legal contests (Lawyer and client)
3. any other contest
The military as separate actors

What do these models teach us?

- Explicitly modelling the strategic incentives of the military fundamentally alters the basic findings of the literature
- The consequences can be:
  1. Internal: risk of military coups, strategic under- or over-sizing of armies
  2. External: internal organization affects risk of international conflict

First approach takes external threat exogenous
Second approach takes internal organization exogenous

⇒ Integrating the two approaches?

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over-sizing makes oneself a more offensive predator
the very size of the army is a function of the external threat
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I ideas for further research

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  - Citizens are unable to depose leader if military intervenes
  - The military may find it easier to oppose the elites if supported by the citizens
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  (military or citizens): 3-player game
- Collective action inside the military:
  - strategic incentives of government of whom to assign in the army
  - consequences on risk of civil war (Libya vs Syria)
Ideas for further research

- External actors are strategic:
  - Institutions may evolve because of the strategic behaviour of neighbours

Developed countries are not by definition immune to military juntas (Greece, Argentina), and are not militarily under-staffed either

⇒ how would theoretical predictions change?

U.S. army is by far the strongest in the world, yet military officers do not get paid their discounted expected payoff of a military coup (Major General with +10 years of experience $115,000, PhD in Finance first job $250,000)

When do Citizens organize themselves to overcome collective action problem (emergence of 'terrorist organizations)? What is the impact on the evolution of the country's institutions? And how is the policy influenced in anticipation?

What is the socially optimal degree of independence of the army from the government?
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- To what extent does the geopolitical situation of a country affect its internal politics, and economic performances?
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- Strategies of demonizing neighbours to justify the maintainance of an over-sized army:
  - military rent-seeking
  - better capacity to cope with potential uprisings