Revisionist Ally in Crisis Bargaining: To Support or Not to Support

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When does a defender support or abandon a revisionist protégé who initiates a crisis?
The Defender’s Behaviors: What do We Miss?

- Defender’s behavior as DV
  - Strategic concerns
    - Deter adversary
    - Avoid moral hazard
    - Treaty design
    - Crisis bargaining
    - Militarized conflict

Three phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Concern</th>
<th>Deter adversary</th>
<th>Avoid moral hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treaty design</td>
<td></td>
<td>A few</td>
<td></td>
</tr>
<tr>
<td>Crisis bargaining</td>
<td>Majority of research</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Militarized conflict</td>
<td>Consistent with treaties?</td>
<td></td>
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</tbody>
</table>
The Model

- **Players:** Protégé (P); Adversary (A); Defender (D);
- **Parameters**
  - $a$: the benefits exchanged between P and D ($0 < a < 1$)
  - $b$: D’s benefits from an improved relationship with the Adversary ($0 < b < 1$); They are not necessarily enemies!
  - $r$: reputation among allies, i.e. credibility of honoring commitment ($0 < r < 1$)
  - $w_P$ and $w_A$: the expected utility of war for P and A, respectively.
- **Information structure**
  - P and D know $w_P$ while A knows $w_A$.
  - The distribution functions of $w_P$ and $w_A$ are common knowledge
  - $a$, $b$, and $r$ are common knowledge.
Game Tree

\[
\begin{align*}
\text{D} & \quad \text{Challenge} \\
\text{P} & \quad \text{Ignore} \quad \text{Concede} \\
\text{A} & \quad \text{Support} \quad \text{Refuse} \\
\text{P} & \quad \text{Back Down} \quad \text{Stand Firm} \\
\end{align*}
\]

\[
\begin{align*}
(a, r-a, 1) & \quad (1-a, r+a-b, 0) \\
(1-r+b, 0) & \quad (w_p-a, rw_p+a-b, w_A) \\
(-r, -r+b, 1) & \quad (w_p, -rw_p+b, w_A) \\
\end{align*}
\]
Backward induction

Cut-point strategy

- Incomplete information
- Each player has a *continuum* of types.
- The cut-point of types (hence strategies) is the key to the solution.
- For example, we shall look for a Bayesian equilibrium in which the Protégé challenges if $w_P$ exceeds some critical value and keeps status quo otherwise, and the same for the other players.
- These strategies are usually called cut-point strategies; that is, given an interval of types, there exists a special type (the cut-point) such that all types to the left do one thing, and all types to the right do another.
These strategies are usually called cut-point strategies; that is, given an interval of types, there exists a special type (the cut-point) such that all types to the left do one thing, and all types to the right do another.

\[ \Pr(\text{back down} | \text{challenge}) = ? \]
Overview of Equilibrium

- The Protégé: \( B \) is the cutpoint between challenge and status quo; 
  \(-r\) is the cutpoint between back down and stand firm.
- The Adversary: make decisions by updating the belief about the 
  Protégé standing firm after observing the Defender’s action.
- The Defender: choose strategy with respect to the relative value 
  of \( a \).
  - Recall: share information with the Protégé
  - When the Protégé stands firm, choose a cutpoint of \( w_p \) for support
    • Since \( w_p \geq -r \), \( a \) must be greater than a critical value (a-high bar); otherwise, 
      the Defender will support even when the Protégé backs down.
  - When the Protégé backs down, choose another cutpoint for support
    • Then we have another critical value (a-low bar), under which the Protégé 
      receives no support when it backs down.
Case 1: Abandoning Troublemaker ($a < \underline{a}$)

- The Defender never supports the Protégé’s challenge.
- Unable to update information, the Adversary will refuse when

$$w_A \geq \frac{F(B_0) - F(-r)}{1 - F(-r)} = k_0$$
Compare Case 1 with the no-alliance model

$B_0 > B$ (the counterpart in the no-alliance model)
- The Protégé is less likely to initiate challenges when allying with the Defender than without an alliance.

Given $B_0 > B$ and $k = \frac{F(B) - F(-r)}{1 - F(-r)}$ in the no-alliance situation, $k_0 > k$
- The Adversary is more likely to concede with the Defender’s presence.
- The Defender supports the Protégé’s bluff (CH&BD).
- If the Protégé stands firm, it has the Defender’s support only when \( w_P \) is sufficiently high ( \( > w_P' \) ).
- The Adversary is able to update information.
Why does the Defender make an empty threat given BD?
  o By supporting the Protégé’s bluff, the Defender will gain both benefits from the Protégé and the reputation among other allies.
  o No risk of involving real conflicts against the Adversary.

Why is the Defender more cautious given SF?
  o The Defender has to face the danger of fighting against the Adversary. Obviously, it does not want to risk wars unless $w_p$ is sufficiently great.

$B’ > B$

$k_0 < k’ < k_2$
  o $\Pr(\text{CD|SP}) = G(k’)$; $\Pr(\text{RF|IG}) = G(k_2) = G(0)$
  o The Adversary is most likely to concede when the Defender ignores the Protégé’s challenge.
**Case 3: Constant Support ($\alpha \geq \bar{\alpha}$)**

- The Defender supports all actions of the Protégé.
- $B^* > B_0$ and $B^* > B'$
  - The Defender is least likely to be a troublemaker in Case 3. Why?
- The Adversary is still unable to update information.
In general, \( \Pr(RF) = s = 1 - G(k) \)

\( s > s_0 > s' = s^* > s_2 \)
Extension: EITM Framework!

- Theoretical concepts (and analogues)
  - Strategic interaction, utility maximization
  - Learning, Bayesian updating
- Statistical concepts
  - Binary logit/probit model
  - Bayesian statistics?
- Unification (equilibrium \(\rightarrow\) hypotheses)
The Protégé is more likely to initiate challenges with an ally than without an ally.

If the Protégé initiates challenges, conflicts are more likely to happen when an ally does not exist.

If the Protégé with an ally initiates challenges,

- Conflicts are more likely to happen when $a < 2(b-r)$.
- Given $a > 2(b-r)$, conflicts are less likely to happen when the Defender does not support the Protégé.

Potential data

- The Protégé and the Adversary: enduring rivalries (Thompson 2001)
- $a$ & $b$: Affinity of nations (Gartzke 2001), GDELT?
- $r$: the Defender’s frequency of honoring commitments; the number of allies the Defender has
<table>
<thead>
<tr>
<th>Cases</th>
<th>Taiwan’s pursuit of independence</th>
<th>North Korean nuclear crisis</th>
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</thead>
<tbody>
<tr>
<td>Actors</td>
<td>Taiwan (P); the US (D); China (A)</td>
<td>DPRK (P); China (D); the US (A)</td>
</tr>
<tr>
<td></td>
<td>Alliance: <strong>not formal</strong>;</td>
<td>Alliance: <strong>formal</strong>;</td>
</tr>
<tr>
<td></td>
<td>Geo-: <strong>less important</strong>; other allies</td>
<td>Geo-: “<strong>lip and teeth</strong>”; the only ally</td>
</tr>
<tr>
<td></td>
<td>Regime type: both are democracy</td>
<td>Regime type: both are authoritarian</td>
</tr>
<tr>
<td></td>
<td>Econ-: trade partner; arms buyer</td>
<td>Econ-: relying on China’s aid</td>
</tr>
<tr>
<td>$a$</td>
<td></td>
<td>&lt;</td>
</tr>
<tr>
<td>(P-D)</td>
<td></td>
<td>≈</td>
</tr>
<tr>
<td>$b$</td>
<td>Both are major powers, with some interests overlapped but others contradictory.</td>
<td>Less international pressure</td>
</tr>
<tr>
<td>(P-A)</td>
<td>≈</td>
<td>≈</td>
</tr>
<tr>
<td>$r$</td>
<td>“Strategic ambiguity”</td>
<td>“Separating Strategies”</td>
</tr>
<tr>
<td>Result</td>
<td>“Abandoning Troublemaker”</td>
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North Korean Nuclear Crisis

- **Status quo**: the Agreed Framework in 1994; the hostility between the US and North Korea
- **Challenge**: Pyongyang’s restart of the nuclear program and the demand for the normalization of relationships with the US

- North Korea quitted the six-party talks and launched a long-range missile test and nuclear test in 2006 (**P: CH&SF**)
- China condemned the tests and voted for the UN Resolution 1695 and 1718 (**D: IG**).
- The US initiated a bilateral talk with North Korea, agreed to discussion normalization of US-DPRK and would start the process of removing North Korea from its list of terror-sponsoring states (**A: CD**)
Taiwan’s Pursuit of Formal Independence

- Status quo: Taiwan’s *de facto* independence and regional stability
- Challenge: Taiwan pursuing *de jure* independence
  - Referendum on the entry to WHO/UN under the name of “Taiwan”

- The US: The Bush administration always opposed Taiwan’s formal independence, when
  - Chen Shui-bian proposed referendum, which then failed in the legislature in 2004 (CH ➔ BD);
  - Chen and the opposition party both proposed and conducted their own referenda in 2008 (CH ➔ SF).