

Moderating Conflicts with Radical Hardliners*

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Abstract

We propose a simple model of civil conflict between a moderate faction and two extremist factions of “hardliners”. Hardliners strongly dislike any position that differs from their ideological position, but barely distinguish between positions closer and farther from it. For a pre-determined set of ideological positions, each faction chooses whether to exert effort to coerce other factions. Full-scale conflict arises whenever two or more factions exert effort. We show that there exist circumstances under which more radical extremist positions ultimately induce moderate and peaceful outcomes. We discuss how a third party can therefore induce moderate and peaceful outcomes by means of favoring more radical leaderships in extremist factions. Such an intervention can be successful only if the cost of fighting is sufficiently large. Otherwise, it induces more conflict and more radical outcomes. Interventions that reduce the cost of conflict increase both the likelihood of full-scale conflict and radical outcomes.

Keywords: civil conflict; extremism; radicalization.

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1 Introduction

The rise of fundamentalist Salafi movements in the Middle East poses the question of how to manage conflicts in the presence of radical factions who seem uninterested in any form of compromise. The rationalist workhorse model of preferences assumes that even radical fundamentalists strongly prefer policies closer to their bliss point to others farther from it. But this view is far from being unanimously accepted. For example, Osborne (1995) is “uncomfortable with the implication of concavity that extremists are highly sensitive to differences between moderate candidates” (see also Eguia, 2013). Similarly, Kamada and Kojima (2014) argue that non-concave utility functions are a better representation of ideological preferences, especially when motivated by moral or religious values (see also Michaeli and Spiro, 2015). In this paper, we explore how our understanding of civil conflict changes when we take into account that extremist factions are *hardliners*: they strongly dislike any position that differs from their objective, but barely distinguish between positions closer and farther from it.

We propose a stylized model of civil conflict between a moderate and two extremist factions. In contrast to much of the existing literature, we characterize extremists as hardliners by assuming that they have non-concave utility functions and are indifferent between the victories of the moderate and the opposite extremist faction. Each faction strategically chooses whether to exert costly effort to coerce other factions. When two or more factions exert effort, we say that they *fight* a full-scale conflict. We characterize the set of equilibria and show that more radical extremist positions might generate moderate and peaceful outcomes. Intuitively, radicalizing the extremists yields a steeper increase in the moderate faction’s incentives to exert effort.¹

This result has potentially key policy implications for a foreign intervention wishing to induce moderate and peaceful outcomes. Civil conflicts are typically dominated by radical actors while we rarely see armies of moderate, democratic rebels. Klose and Kovenock (2015) offer a simple theoretical justification: as extremists are ideologically further away

¹Our model also captures the fact that more radical leaders might also be less likely to receive sufficient support to organize the fight.

from each other, they have large incentives to fight. On the contrary, moderates that lie between the two extreme factions are closer to each extreme and thus have weaker incentives to fight. Lacking a moderate leadership to deal with, foreign intervention can aim to influence the leadership of extremist factions.² Most often the plan is to favor leaders with relatively more moderate positions so to moderate the ultimate outcome of the conflict and reduce the likelihood of a full-scale conflict. In contrast, our result shows that there are circumstances under which more radical extremist leaderships lead to an uprising of moderates and ultimately to a moderate and peaceful outcome. While in our model the moderates know the ideological position of extremist leaders, in reality their incentive to fight only depends on their perception of how radical extremist factions are. Thus, the same result could also be achieved by an intervention that manipulates moderates' belief, convincing them that extremist leaders are more radicalized.³

Our model captures several patterns observed in civil conflicts. While only interventions that radicalize extremist leaderships can induce moderate and peaceful outcomes, this result can be achieved only if the cost of fighting is sufficiently large. Otherwise, the same intervention induces more conflict and more radical outcomes. We also discuss the effects of interventions targeting the cost of conflict, for example by lifting an arms embargo or smuggling weapons into the country. Regan (1996, 2000) and Elbadawi (1999) put forward evidence that the major effect of interventions is prolonging the conflict by reducing the cost of fighting.⁴ In our model, the combination of low fighting costs and radical extremist positions results in full-scale conflict with radical outcomes. This pattern fits the development of the Afghan civil war after the US smuggled weapons into the country to help Mujaheddin forces fight the Soviet occupation. Similarly, after the arrival of the US-led Coalition troops in 2003, the dismantling of the Iraqi Army dramatically

²Tiernay (forthcoming) shows evidence that leadership changes have large impacts on the termination of civil conflicts (see also Fearon and Laitin, 2007). According to James Fearon, "leadership changes are a factor in the termination of between 25% and 40% of civil wars" (cited in *How to Stop the Fighting, Sometimes*, The Economist, November 9th, 2013). Hamlin and Jennings (2007) consider the endogenous choice of leadership within factions.

³Baliga and Sjöström (2012) study how a third-party can induce full-scale conflict by manipulating information.

⁴In this context, Balch-Lindsay et al. (2008) and Regan (2002) suggest that only biased interventions might reduce the length of the conflict by inducing a military victory of the favored faction.

lowered the cost of organizing armed militias, fostering the chances of a civil war. In our model, when the cost of fighting is sufficiently low, conflict cannot be avoided, but an intervention that favors leaders with more moderate positions induces a more moderate outcome.

The 1970s in Italy offer a possible example of our mechanism at work. The decade was characterized by frequent acts of terrorism and political violence from right and left-wing extremists. Violence began to decline in the early 1980s when the increasingly violent tactics of extremists alienated popular support (Bull and Cooke, 2013), leading to coalition governments including parties previously excluded from the executive, and bringing workers unions firmly on the side of democratic legality. Bull (2007) suggests that the escalation of violence was deliberately encouraged by US and European governments with the objective of forcing moderate forces to work together against extremist factions. This “strategy of tension” closely resembles our radicalizing interventions.⁵

2 A Model of Civil Conflict

There are three factions: a moderate M and two extremists, L and R . We identify each faction $i \in \{M, L, R\}$ with its respective position on the real line, so that, without loss of generality, $M = 0$, $L < 0$, and $R > 0$. For simplicity we assume that the extremists’ positions are symmetric with respect to the moderate: $L = -R$.

Each faction i chooses whether to fight or not. Choosing to fight entails a cost $\gamma > 0$. If only faction i fights, then it wins the conflict with certainty. If two factions fight, then each of these two wins with probability $1/2$. If all three factions fight or neither does, then each faction wins with probability $1/3$. For faction M , the value of winning v^M is a continuous, increasing, and *convex* function of the distance between its own position and that of the extremist who would win otherwise. For an extremist faction $i \in \{L, R\}$, the value v^i of winning is a continuous, increasing, and *concave* function of the distance between its position and the position of the moderate.⁶ Based on our

⁵Jenkins (1990) argues that a similar strategy was employed in Belgium between 1982 and 1986.

⁶Our results do not change qualitatively if v^i is instead a function of the distance between i ’s position and some convex combination of the positions of the moderate and opposing extremist factions.

symmetry assumption, v^M , v^R , and v^L are all determined by a single parameter, $R \in \mathbb{R}_+$. To emphasize this dependence, we write $v^M = v^M(R)$, $v^L = v^R = v^R(R)$.

We represent a mixed strategy for faction i by its probability of fighting $\sigma^i \in [0, 1]$. Our solution concept is Nash equilibrium. Following (loosely) Esteban and Ray (1999) we say that an equilibrium is *extremist* if only extremist players fight with positive probability. We say that an equilibrium is *moderate* if only moderate players fight with positive probability. Furthermore, an equilibrium is a *dictatorship* if only one faction fights with positive probability; otherwise it is a *conflict*. Note that there might exist both *extremist dictatorships* or an *extremist conflict*; in contrast, a moderate equilibrium is always a dictatorship.

The key to the analysis is that a faction i will fight only if the opponent factions fight with sufficiently low probability.

Lemma 1. *Fighting is a best response for faction $i \in \{L, M, R\}$ if $\sum_{j \neq i} \sigma^j \leq 2h(v^i(R))$, where*

$$h(v^i(R)) = 2 - \frac{3\gamma}{v^i(R)}$$

is decreasing in the cost of fighting γ and increasing in the value of winning $v^i(R)$.

Proof. All proofs are in Appendix A. □

For the remaining analysis, we rule out uninteresting cases in which factions have a strictly dominant strategy: Assumption 1 says that (i) it is worth fighting for a victory if all other factions do not fight, and (ii) fighting is not a best response when all other factions fight with probability 1.⁷

Assumption 1. $0 < h(v^i(R)) < 1$ for all factions $i \in \{L, M, R\}$.

3 Conflict and Radicalization

We now partially characterize the set of equilibria. We interpret the results in terms of the relative value of winning for the different factions (i.e., keeping the cost of fighting γ fixed).

⁷For given functions v^i , this restricts the range of admissible values for R to $R \in (\underline{R}, \bar{R})$ with $\min\{v^M(\underline{R}), v^R(\underline{R})\} = \frac{3}{2}\gamma$ and $\max\{v^M(\bar{R}), v^R(\bar{R})\} = 3\gamma$.

Proposition 0 says that if the moderate faction values victory sufficiently more than extremist factions and the cost of fighting is sufficiently small, then the unique equilibrium is moderate. Otherwise, either an extremist conflict or an extremist dictatorship are equilibria.

Proposition 0. *The unique equilibrium is moderate if and only if*

$$h(v^M(R)) > \max\{1/2, 2h(v^R(R))\}.$$

Otherwise,

1. *if and only if $h(v^M(R)) \leq 2h(v^R(R))$, there exist extremist conflict equilibria. In any extremist conflict equilibrium, each extremist faction fights with probability*

$$\sigma^R = \sigma^L = \bar{\sigma} \equiv \min\{2h(v^R(R)), 1\}$$

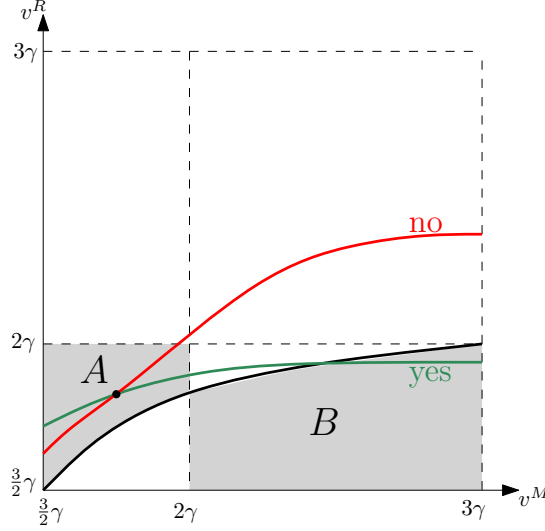
and the moderate faction does not fight, $\sigma^M = 0$.

2. *if and only if $h(v^i(R)) \leq 1/2$ for all $i \in \{L, M, R\}$, there exist extremist dictatorship equilibria.*

In an extremist conflict equilibrium, a full-scale conflict arises with probability $\bar{\sigma}^2$. Hence, the probability of a moderate political outcome in such an equilibrium is $(1 - \bar{\sigma})^2/3$.

Radicalizing to Moderate. We can now derive our main results regarding comparative statics on the degree of radicalization of extremist leaderships, R . For a concrete example, imagine that a foreign power can pick more moderate or more radical extremist leaderships. That is, it chooses $R \in [\underline{R}, \bar{R}]$, where $\underline{R} > 0$ is the most moderate extremist leader and \bar{R} is the most radical extremist leader. An intervention that increases R is *radicalizing*; one that reduces R is *moderating*. In what follows, we consider the following scenario. An extremist dictatorship has switched to an extremist conflict. Thus, we require that the pre-intervention parameters are in the region where both extremist

Figure 1: Regions of Conflict (A) and Moderation (B)



dictatorships and extremist conflicts are equilibria. The shaded region A in Figure 1 represents the space of pre-intervention scenarios.

Assumption 2. *The pre-intervention R^P is such that $h(v^M(R^P)) \leq 2h(v^R(R^P)) \leq 1/2$.*

Furthermore, we maintain for the remainder of the paper that an intervention cannot switch the situation from one type of equilibrium to another, unless the original type of equilibrium ceases to exist. Therefore, full moderation can be achieved only by reaching values of (v^M, v^R) for which only moderate equilibria exist. The shaded area B represents this region in Figure 1. Foreign intervention changes the values of v^M and v^R along a path determined by the relative curvature of the utility functions of the three factions. Figure 1 depicts two such patterns—labeled “yes” and “no”—starting from a point in region A . Since v^M is increasing in R , a necessary condition for a successful intervention is to radicalize the society: increase R .⁸

Proposition 1. *If an intervention induces moderation, then it is radicalizing. Such an intervention exists if and only if there exists $R > R^P$ such that $h(v^M(R)) > \max\{1/2, 2h(v^R(R))\}$.*

A sufficient condition for such an intervention to exist is $v^R(R^) < 2\gamma$, where R^* is the*

⁸Such a radicalizing intervention is Pareto improving. In fact, an extremist’s expected payoff in an extremist conflict in region A is 0. An extremist’s expected payoff in a moderate equilibrium is also 0. Intuitively, in an extremist conflict, all the expected value of a victory is dissipated into fighting. Thus, the intervention deters a conflict which brings no expected advantage to the fighters.

ideological distance such that $v^M(R^*) = 3\gamma$.

The necessary and sufficient condition in Proposition 1 is satisfied if and only if there exists R such that $v^M(R) \in (2\gamma, 3\gamma)$ and

$$v^R(R) < \left[\frac{1}{3\gamma} + \frac{1}{2}v^M(R)^{-1} \right]^{-1}. \quad (1)$$

Recall that extremist leaders are hardliners: their payoff v^R decreases very fast as the policy outcome deviates even slightly from their preferred policy; they are nearly indifferent between two policies that are sufficiently far from their preferred policy. In fact, Comparing (1) with the initial condition in Assumption 2, Proposition 1 says that full moderation can only be achieved if radical leaders are sufficiently hardliner compared to moderate leaders, so that for large enough R , v^M grows sufficiently faster than v^R . This condition is met for the green pattern “yes” in Figure 1; it is not met for the red pattern “no”. Notice also that (1) can never be satisfied if the cost of fighting γ is sufficiently large.

Remark 1. A radicalizing intervention that achieves full moderation and avoids full-scale conflict exists only if the cost of fighting is sufficiently large.

Moderating Conflicts and the Anarchic Chaos. We now turn to the question of how interventions can moderate conflict when full moderation is not achievable. We impose a regularity condition: for very low ideological distances, the net value of winning over the cost of fighting is larger for an extremist faction than for the moderate one.

Assumption 3. Let R^{**} be the ideological distance such that $v^M(R^{**}) = 3\gamma/2$. Then $v^R(R^{**}) > v^M(R^{**})$.

Whenever the condition in Proposition 1 is not met, an extremist conflict is an equilibrium for all R satisfying assumptions 1 (by Proposition 0). Therefore, an intervention that cannot ensure full moderation can only affect the likelihood of conflict and final policy outcomes.

Proposition 2. *If an intervention that induces moderation does not exist, then (i) a moderating intervention reduces conflict and moderates the outcome while (iii) a radicalizing intervention increases conflict and induces more radical outcomes.*

Intuitively, interventions that moderate the extremist leadership induce more moderate outcomes for two reasons. First, reducing R has the effect of moderating the policy outcome in case of an extremist victory. Second, reducing R increases the likelihood of a moderate outcome, because the probability of fighting of the extremist groups is increasing in R . When the conditions for moderation via a radicalizing intervention are not met, then such an intervention instead increases all factions' willingness to fight.

We finally consider the effect of reducing the cost of fighting. For example, a foreign intervention could establish or lift an embargo on armaments or introduce a different technology. Recall that full moderation can be achieved by increasing the moderates' incentive to fight. However, reducing the cost of fighting never achieves full moderation, because it increases the incentive to fight for all three factions.

Proposition 3. *Reducing the cost of fighting increases the likelihood of a full-scale conflict and induces more radical policy outcomes.*

We conclude by highlighting the peril of excessive interventions in increasing R or reducing γ . Both can in fact precipitate the conflict to a situation in which $3\gamma < \min\{v^R(R), v^M(R)\}$. By Lemma 1, then the unique equilibrium is one in which all three factions fight with non-zero probability and the outcome is likely to be extreme. We think of this situation as an *anarchic chaos* similar to the Afghan civil war after the retreat of the Soviet Army in the late 1980's.

4 Conclusions

Our model highlights how the presence of extremist hardliners impacts civil conflicts. Our result showing that there exist circumstances in which a moderate faction rises to successfully defeat extremists has clear policy implications. However, in order to induce such an outcome, interventions must aim to increase the moderates' value of

victory—perhaps by informing moderate citizens of the consequences of an extremist victory—rather than simply reducing their cost of fighting. While our results suggest that such an intervention is the only option to achieve a moderate and peaceful outcome, we have also pointed out the risks associated with it. Specifically, if the cost of fighting becomes sufficiently small, a radicalizing intervention increases the likelihood of full-scale conflict and induces more radical outcomes.

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A Proofs

Proof of Lemma 1. Let j and k be the opponents of i . Then fighting is a best-response for player i whenever

$$v^i \underbrace{\left[\frac{\sigma^j \sigma^k}{3} + \frac{\sigma^j (1 - \sigma^k) + \sigma^k (1 - \sigma^j)}{2} + (1 - \sigma^j) (1 - \sigma^k) \right]}_{\text{exp. payoff of fighting}} - \gamma \geq \underbrace{v^i \frac{(1 - \sigma^j) (1 - \sigma^k)}{3}}_{\text{exp. payoff of not fighting}}$$

which reduces to $\sigma^j + \sigma^k \leq 2h(v^i)$. If the inequality is strict, fighting is the unique best-response for i . \square

*Proof of Proposition 0. **First statement.*** In the unique equilibrium, the moderate faction fights with probability 1 and both extremists do not fight.

Existence. We begin by noticing that an extremist prefers not to fight whenever $\sigma^M = 1$. To see why, recall that $h(v^M(R)) < 1$ by Assumption 1. Thus, the condition $h(v^M(R)) > 2h(v^R(R))$ implies that $h(v^R(R)) < 1/2$. Lemma 1 then implies that fighting is not a best-response for player R because

$$\sigma^L + \sigma^M \geq \sigma^M = 1 > 2h(v^R(R)),$$

hence $\sigma^R = 0$. The same argument applies with reversed roles of players L and R . Existence then follows from the condition $h(v^M(R)) > 1/2$, which implies

$$\sigma^L + \sigma^R = 0 \leq 1 < 2h(v^M(R)),$$

hence $\sigma^M = 1$.

Uniqueness. We have shown above that under the conditions of Proposition 0 an extremist fights only if $\sigma^M < 1$. By Lemma 1 this requires $\sigma^L + \sigma^R \geq 2h(v^M(R)) > 1$, which implies that $\sigma^L > 0$ and $\sigma^R > 0$. By Lemma 1 $\sigma^R > 0$ only if $\sigma^L \leq \sigma^L + \sigma^M \leq 2h(v^R(R))$. Similarly, reversing the roles of L and R and by symmetry we obtain $\sigma^R \leq \sigma^R + \sigma^M \leq 2h(v^L(R)) = 2h(v^R(R))$. Thus, $\sigma^L + \sigma^R < 2 \cdot 2h(v^R(R)) < 2h(v^M(R))$,

but then M fights with probability 1 by Lemma 1.

Second statement. Let $(\sigma^M, \sigma^L, \sigma^R) = (0, \bar{\sigma}, \bar{\sigma})$ be an equilibrium. Then by Lemma 1, $2h(v^M(R)) \leq \sigma^L + \sigma^R = 2\bar{\sigma} \leq 4h(v^R(R)) \Leftrightarrow h(v^M(R)) \leq 2h(v^R(R))$.

Let $h(v^M(R)) \leq 2h(v^R(R))$. Let $(\sigma^L, \sigma^R) = (\bar{\sigma}, \bar{\sigma})$, then

$$\sigma^L + \sigma^R = 2\bar{\sigma} \geq 4h(v^R(R)) \geq 2h(v^M(R)).$$

Therefore, $\sigma^M = 0$ is a best-response for M . Let $(\sigma^M, \sigma^L) = (0, \bar{\sigma})$. If $\bar{\sigma} = 1$ then

$$\sigma^M + \sigma^L = \bar{\sigma} = 1 \geq 2h(v^R(R))$$

and $\sigma^R = 1 = \bar{\sigma}$ is a best-response for R . If $\bar{\sigma} = 2h(v^R(R)) < 1$, then

$$\sigma^M + \sigma^L = \bar{\sigma} = 2h(v^R(R))$$

and $\sigma^R = 2h(v^R(R)) = \bar{\sigma}$ is a best-response for R . The symmetric argument holds when reversing the roles of players L and R .

Third statement. Let $(\sigma^M, \sigma^L, \sigma^R) = (0, 0, \sigma^R)$ with $\sigma^R \in (0, 1]$ be an equilibrium. Then for $i, j \in \{L, M\}, i \neq j$ we must have $2h(v^i(R)) \leq \sigma^j + \sigma^R \leq 1$ by Lemma 1. Thus by symmetry of the extremists, $h(v^i(R)) \leq \frac{1}{2}$ for all factions $i \in \{L, M, R\}$

Let $h(v^i(R)) \leq \frac{1}{2}$ for all factions $i \in \{L, M, R\}$, then $2h(v^i(R)) \leq 1$ for all factions i and by Lemma 1, faction i prefers not to fight whenever there exists a faction j that fights with probability 1. In particular, $(\sigma^M, \sigma^L, \sigma^R) = (0, 0, 1)$ and $(\sigma^M, \sigma^L, \sigma^R) = (1, 0, 0)$ are extremist dictatorship equilibria. \square

Proof of Proposition 1. First statement. By Assumption 2, the pre-intervention R^P is such that $v^M(R^P) \leq 2\gamma$. By Proposition 0, full moderation requires $v^M(R) > 2\gamma$. Since v^M is an increasing function of R , an intervention might induce moderation only if it increases the ideological distance R .

Second statement. By Proposition 0, for a given ideological distance R , a moderate

(dictatorship) equilibrium exists if and only if $h(v^M(R)) > \max\{1/2, 2h(v^R(R))\}$. Notice that if such an R exists, then an intervention that increases the ideological distance from R^P to R induces a moderate equilibrium. Otherwise, there is no intervention that can induce a moderate equilibrium.

Second statement. Let $v^R(R^*) < 2\gamma = \frac{6\gamma v^M(R^*)}{2v^M(R^*)+3\gamma}$. Notice that

$$h(v^M(R)) > 2h(v^R(R)) \Leftrightarrow v^R(R) < \frac{6\gamma v^M(R)}{2v^M(R) + 3\gamma}$$

Recall that v^R and v^M are continuous and increasing in R . Therefore, there exists $\epsilon > 0$ such that for all $R : 0 < R^* - R < \epsilon$, $v^R(R) < 2\gamma$ and $2\gamma < v^M(R) < 3\gamma$. Then, by Proposition 0, the unique equilibrium at R is moderate. \square

Proof of Proposition 2. Let $v^R(R^*) \geq 2\gamma$. Since v^R and v^M are continuous and increasing, for all R such that $v^M(R) \in [2\gamma, 3\gamma]$ we have $v^R(R) > 2\gamma$. Therefore, by Proposition 0 and Assumption 3, the post-intervention equilibrium is an extremist conflict for all R . Since $v^R(R)$ is increasing in R , in such an equilibrium, reducing R decreases the probability of a full-scale conflict

$$\bar{\sigma}^2 = \min\{2h(v^R(R)), 1\}$$

and increases the probability of a moderate outcome $(1 - \bar{\sigma})^2$. \square

Proof of Proposition 3. By Assumption 2, the initial condition is an extremist conflict and

$$\begin{aligned} v^M(R) &\leq 2\gamma \\ v^R(R) &\geq \frac{6\gamma v^M(R)}{2v^M(R) + 3\gamma}. \end{aligned} \tag{2}$$

We first show that for any γ' , an extremist conflict continues to exist. That is, there

exists no γ' such that

$$\begin{aligned} v^M(R) &> 2\gamma' \\ v^R(R) &< \frac{6\gamma'v^M(R)}{2v^M(R) + 3\gamma'}. \end{aligned} \tag{3}$$

Notice that this requires

$$\gamma' < \frac{v^M(R)}{2} \leq \gamma.$$

Also,

$$\frac{6\gamma v^M(R)}{2v^M(R) + 3\gamma}$$

is increasing in γ . Therefore, using (2),

$$v^R(R) \geq \frac{6\gamma v^M(R)}{2v^M(R) + 3\gamma} > \frac{6\gamma'v^M(R)}{2v^M(R) + 3\gamma'}$$

which contradicts (3).

We now show that reducing γ increases the probability of a full-scale conflict and decreases the probability of a moderate outcome. Recall that in an extremist conflict the probability of a full-scale conflict is

$$\bar{\sigma}^2 = \min \{2h(v^R(R), 1)\}$$

and the probability of a moderate outcome is given by $(1 - \bar{\sigma})^2$. Noticing that

$$\frac{dh(v^R(R))}{d\gamma} = -\frac{3}{v^R(R)} < 0$$

concludes the proof. □