

Negotiation in the Shadow of an Extremist Threat

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ABSTRACT

REBECCA BEST: Negotiation in the Shadow of an Extremist Threat
(Under the direction of Mark Crescenzi)

In this paper I model negotiations between a state and the moderate faction of a terrorist organization first with complete information and later with this assumption dropped. The goal of this exercise is to reach a more complete understanding of what can be expected from such negotiations. The results of the model indicate that under certain circumstances, when moderates agree to cooperate with the state, extremists may attack the moderates of their own organization. This provides an explanation for the elevated levels of terrorist violence that accompany state negotiations with terrorists. The model also suggests that, under certain circumstances, the moderate faction may initiate negotiations with the state to push the extremists into offering concessions (which might include, among other things, a greater role in the decision making of the group or public services such as schools and infrastructure) to the moderates.

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LIST OF ABBREVIATIONS AND SYMBOLS

- A.....Moderates accept government's offer
- ~A.....Moderate's reject government's offer
- E.....Extremist faction of the opposition
- p.....Probability with which the combined opposition factions succeed
- M.....Moderate faction of the opposition
- q.....Probability with which the Extremists succeed without the Moderates
- S.....Government
- V.....Extremist's use violence
- ~V.....Extremist's use nonviolence
- V_cExtremist value for success against the Government
- V_mModerate value for success against the Government
- V_sGovernment value for success against the opposition
- σGovernment offer to Moderates

Introduction

The leaders of state targets of terrorism frequently deny negotiating with terrorists. Many leaders insist that they will not negotiate with terrorists as doing so would serve to legitimate terrorist tactics. When lives hang in the balance, state leaders are torn between standing firm against terrorism and negotiating to save the lives of civilians. Despite assertions to the contrary, many states have negotiated with terrorists, some with more success than others.

As states and terrorists attempt to negotiate, the level of violence frequently increases. This violence often occurs between the terrorists and the state; however violence may also occur within the terrorist organization. This latter intra-organizational violence has been under studied within the literature. The present work demonstrates that this type of violence, even the mere threat of this sort violence, can be critical in determining whether negotiations between terrorists and the state will be successful and what sorts of government policies will hold the most promise for the establishment of peace.

Currently, American attempts to reach a lasting peace with Iraqi citizens are being undercut by extremist threats aimed at those who participate in negotiations or support peace efforts. Al-Qaeda operatives have been known to assassinate Sunni leaders active in peace talks and the new Iraqi government. This example is discussed in more detail later in this paper, and the model itself provides a first cut at examining the effect of this inter-factional violence on the prospects for peace.

Negotiating with terrorists may also pose significant audience costs for leaders who wish to appear strong on national security issues, especially if those negotiations are unsuccessful. Given the potential high costs to negotiating, leaders will want to avoid doing so when they do not anticipate success. This project explores what leaders can expect from negotiations and provides a starting point for research into a new understanding of the needs and position of moderates willing to abandon terrorist tactics for peace. Such an understanding should lead to more effective counter-terror policies designed to appeal to moderates facing different types of extremist threats and offers.

The models I present here indicate that terrorist violence may increase during periods of negotiation as the extremists within the terrorist organization use violence directed at the moderates within their group to prevent those moderates from proceeding with the negotiations. I distinguish between moderates and extremists by assuming that there is some level of state concessions that would deter the moderates from terrorism while the state cannot deter extremists.

The model with incomplete information generates another interesting finding. When the extremists are uncertain of the value that the moderates place on a victory against the government from within the organization, they may prefer to make a nonviolent offer of concession (such as a greater role in decision making within the group). Some types of moderates that prefer to remain within the organization will have an incentive to pretend that they have a lower value for remaining in the terrorist organization in order to gain concessions from the extremists that they would not otherwise receive. In this equilibrium, by pooling with types that have a lower value for staying within the terrorist group some types of moderates are able to play the state

against the extremists to gain more from the extremists. This equilibrium is one example of the concept Richardson (2006) developed of “devious objectives” which he defines as “any involvement in a mediation or peacemaking process on the part of a disputant that is not committed to compromise” (63). Such devious objectives may lead actors to join or initiate a peace process not for peace but for other benefits that may come with involvement in the process. Richardson notes that devious objectives may be the result of trade-offs between factions of a group, but he does not explore this possibility and its implications.

Previous Work

Since the terrorist attacks of 2001, work in this field has become more common, and there are several existing formal models of negotiation between terrorist actors and states. In one of the first of these models, Kydd and Walter (2002) disaggregate the opposition group into two components, moderates and extremists. They model an interaction in which the moderates, having struck a peace agreement with the government, decide whether to attempt to suppress the violent extremists in accordance with the deal. They find that the extremists may try to resist the moderates' attempts at suppression in order to convince the state that the moderates are either not credible or not capable of controlling the extremists, thereby leading to the unraveling of the peace agreement. Kydd and Walter propose that it is this type of spoiler violence directed at government-friendly targets that makes extremists so successful at ending peace processes.

Ethan Bueno de Mesquita (2005) presents an alternative model of negotiations between the state and opposition moderates that is, like Kydd's and Walter's, consistent with an increase in violence at the time of negotiations. Like Kydd and Walter, Bueno de Mesquita models the opposition as consisting of a moderate faction and an extremist faction, but he diverges from them in that he models the decision making process within the opposition before negotiations and after talks have commenced. He assumes that ex ante the moderates constrain the extremists, thereby holding the violence at a level lower than that the extremists would prefer, and that once the moderates accept an offer to negotiate with the government they are no longer able to constrain the extremists leading

to a prolonged increase in extremist violence. Whereas Kydd and Walter predict a short term spike in violence immediately preceding and accompanying negotiations, Bueno de Mesquita predicts a long term increase in the level of terrorist violence following the initiation of negotiation. Bueno de Mesquita further concludes that, despite this increase in the intensity of violence, states negotiate with terrorists because they hope the counterterrorism aid the moderates can provide will lead to a shorter, if more violent, war.

Bueno de Mesquita and Eric Dickson (2007) also model interaction between the moderate and extremist factions of an opposition force and the state. Here the extremist faction may attack the state in order to provoke repression or a counterattack from the government that will mobilize the opposition support base in favor of the extremists rather than the moderates. In this model the extremists are, in a sense, battling both the state and their own moderates.

Bueno de Mesquita's (2008)¹ model of factions within terrorist organizations assumes "two possible sources of tension between factions: ideological divergence and competition for contested adherents" which are interconnected in that "avoiding one of these two types of conflict comes at the price of exacerbating the other" (28). This trade off exists because as factions move closer to each other ideologically (thereby mitigating the problem of ideological divergence), they begin to compete for more of the same potential adherents because the difference between the distances of each faction and any potential adherent is reduced. On the other hand an ideological shift by one faction to either extreme reduces the number of contested adherents while increasing the potential

¹ This is the same paper that Bueno de Mesquita presented at the 2008 ISA conference under the title "Terrorist Factions and Internecine Violence" (email from Ethan Bueno de Mesquita), but in the References section of this paper it is listed as "Terrorist Factions" because this is the title under which it is available on the author's website.

for ideologically driven conflict. Bueno de Mesquita further notes that one faction may use violence to deter defection to the other faction. Bueno de Mesquita does not address the effect of violence between factions on the negotiation process, only on recruitment to splinter groups and the competition for adherents.

Modeling the terrorist organization as a unitary actor Navin Bapat (2006) considers the credibility problem facing terrorists attempting to negotiate with the state. Bapat finds that the credibility problem that normally inhibits successful negotiations with terrorists may be overcome when the terrorists have a host state “with the ability to monitor and impose moderate costs on the terrorist groups” (213). Bapat argues that for success the costs must be moderate because if they are too lenient the terrorists have little incentive to comply and if the costs are too severe the terrorists may avoid negotiation altogether. Bapat’s assertion of the necessity of a commitment mechanism to ensure peace supports Bueno de Mesquita’s (2005) argument that both the extremists and the moderates within a group will not simultaneously lay down arms to negotiate because doing so would allow the government to renege on any agreement with minimized fear of retribution from the opposition. Whereas Bueno de Mesquita is interested in a mechanism to prevent the government from taking advantage of the opposition, Bapat’s host state would provide a commitment mechanism to increase the credibility of the opposition.

Arce and Sandler (2007) model the state’s choice between making concessions and standing firm against terrorist violence when the government is uncertain of the terrorists’ willingness to continue violent attacks. They find that the government’s lack of information regarding the level of extremism of the terrorists (or whether the moderate

or extremist faction of the organization is strongest) may lead the government to either make concessions to a group that would not continue violent attacks regardless of the concessions or to resist a group that will engage in more costly attacks against government-friendly targets as a result of the state's resistance.

Stedman (1997) is an early non-formal work on spoiler behavior within negotiations. Stedman identifies spoilers as “leaders and parties who believe that peace emerging from negotiations threatens their power, worldview, and interests, and use violence to undermine attempts to achieve it” (5). Stedman goes on to distinguish between inside and outside spoilers—that is between spoilers who have indicated a willingness to participate in the negotiations and those who have been excluded from the peace process. Stedman's definition of outside spoilers includes those who attack government friendly targets (consistent with Kydd and Walter's analysis) as well as those who attack members of the opposition interested in negotiating with the government (consistent with my analysis). The model presented here produces two types of spoiling equilibria. In the first of these extremists, Stedman's outside spoilers, use violent threats to deter the moderates from concluding a peace agreement with the government. In the other, moderates initiate negotiations with the government in order to gain concessions from the extremists. This second equilibrium builds on Stedman's concept of inside spoilers by stipulating a particular motivation for the spoiling behavior.

Like Kydd and Walter, Bueno de Mesquita, and Bueno de Mesquita and Ericson, I disaggregate the opposition into an extremist and a moderate faction. Although a few of my assumptions differ from those made by these authors, the primary way in which my analysis departs from theirs' is that it models the extremists' response to negotiations

between the state and the opposition moderates as a phenomenon targeting the moderates rather than the state. My model is not incompatible with these other models any more than they are incompatible with each other, but it does provide an additional explanation for increased violence at the time of negotiations between the state and the opposition moderates.

My model is complementary to Bapat's in that I am modeling an interaction that should require some form of commitment mechanism for both sides. For the state, I assume, following Bueno de Mesquita, that the fact that the extremists are still engaged in terrorist activity will keep the government somewhat credible to the moderates. Short of the state sponsor that can observe and punish violation that Bapat models, there is little in the way of a commitment mechanism for the moderates. Although the state could simply persecute the moderates who have come forward to negotiate, the extremists in the field might punish the state for such behavior. My model assumes that all offers of concessions and threats of punishment are credible. How this credibility is achieved on the terrorist side may vary, however I assume that the extremists' nonviolent offer to the moderates is credible because the moderates would be able to return to negotiations with the state at any time (of course this may or may not be true depending on the ability and willingness of the government to reopen negotiations). I further assume that the extremists' violent threat is credible because the extremists are concerned about their reputation.

Arce's and Sandler's model is similar to my own in that it models the government's choice between making concessions (analogous to making an offer to negotiate in my model) and engaging in counterterrorism (analogous to the status quo of

continued attacks in my model). My model differs from theirs in that I am primarily concerned with the interaction that occurs between the moderate and extremist factions after an offer has been made. The interaction between the factions of the opposition is of greater importance to me than the interaction between the opposition as a whole and the state.

A Game Theoretic Model of Negotiation with Terrorist Moderates

Actors:

To model negotiation between a state and terrorists I disaggregate the terrorist organization into two factions: a moderate faction and an extremist faction, distinguished by their amenability to concessions from the government. I consider the extremists to be that faction of a group that will accept nothing less than the complete destruction of the state while the moderates are that faction of the organization for which there exists some offer from the state that would persuade it to lay down arms and cooperate with the state. There are three readily conceivable reasons that one faction within a terrorist organization might be more willing to negotiate than another.

Chai (1993) and others argue that a prolonged history of violence may lead to a problem of adverse selection—that is new members may join because of the tactics rather than the goals of the group (also May 1974; Wardlaw 1989; Post 1998). The danger of adverse selection is that it could lead to a split within the group between those who remain committed to the group's original goals and those who simply enjoy violence. Smith (2008) suggests a related reason that terrorist organizations may be divided between those who are amenable to negotiation and those who are uncompromising. Smith argues that terrorists may gain a sense of purpose and even power from involvement in the terrorist organization as well engagement in terrorist acts (see also Post 1998). He writes that it is not only the violent tactics of terrorist organizations that may attract non-politically motivated actors, but also the opportunity to be a part of the

terrorist community, even to become a leader (also Post 1998; Reich 1998). From this perspective, the extremist's identity is so tightly bound to the organization or she is receiving material or psychological benefits of membership such that she is more concerned with prolonging the organization's existence than with achieving its stated goals. The third, and perhaps most obvious, reason that one faction may be less open to compromise and negotiation with the state is varying degrees of ideological intensity among factions within the broader organization. The intensity of the extremists' position may lessen the divisibility of the issue at stake for them—that is where the extremists might be willing to compromise in certain less fundamental areas, the extremists will have fewer such areas. For the extremists the battle is an all or nothing affair.

For simplicity I, like Kydd and Walter, Bueno de Mesquita, and Bueno de Mesquita and Ericson, model the state as a unitary actor. It would be reasonable to consider the state as a collective actor composed of two or more factions, however it is the terrorists' response to the state, rather than the decision making process within the state, that is the primary concern of this endeavor. Future research might disaggregate the state to determine if and how the existence of multiple factions within the state changes the basic model presented here. The model thus consists of three actors: the state (S), the extremists (E) and the moderates (M).

Sequence of Play:

The game proceeds in the following way: the state decides whether to make an offer σ to the moderates. If the state does not offer σ , the game ends. If the state does offer σ , the moderates may choose to accept (A) or not accept ($\sim A$) the offer. If the moderates do not accept the offer, the game ends. If the moderates do accept the offer,

the extremists may choose whether to respond with violence (V) or not ($\sim V$). If the extremists choose not to use violence they will make a nonviolent offer to the moderates that (by assumption) may range from 0 to some positive upper bound (determined by available resources and incentives to regain the moderates' support). After the extremists have chosen their response, the moderates make a final decision between the extremists and the state.

Assumptions:

In order to solve this game it is necessary to make several assumptions. The set of assumptions I have made is not the only feasible set, nor is it necessarily the set most reflective of reality. Later I will address the implications of my assumptions and the extent to which they do reflect reality as well as some of the alternative assumptions that could be used to evaluate the game.

I begin by making the fairly standard assumption of complete information. Although it is unlikely that the state will have a perfect understanding of all of the extremists plans, capabilities, and preferences, it does seem likely that after prolonged battle between the two sides, the state will have some reasonable understanding of these aspects of its opponent.

I further assume that all offers and threats are credible. The state's offer to the moderates is assumed credible because with the extremists still fighting, the moderates will be able to return to the fray at any time if they judge the state to be in noncompliance with the deal it has struck with the moderates (Bueno de Mesquita 2005). The extremists' nonviolent offer is assumed credible because the moderates are assumed to have the ability to return to negotiations with the state at any point. Threats of violence

from the extremists are assumed credible because the game models only a short period within a much longer relationship between the three actors and the credibility of the extremists in future periods is at stake if the extremist faction does not follow through on its threats. Although the extremists receive lower utility for following through on a threat of violence once the moderates have sided with the state, the extremists will follow through with the threat to preserve their reputation because they anticipate future interactions with the other two players. Similarly, I assume that if the Extremists make a nonviolent offer they will not attack the moderates even if the moderates choose the state. Conversely, because in the status quo the state is fighting the entire terrorist organization, I assume that if the moderates choose the extremists they will face continuing attacks from the state.

I next assume that there is no cost for offers that are not accepted. One justification for this assumption is that states, preferring not to be caught negotiating with terrorists, may keep the negotiations secret. If the negotiations are not secret, there may indeed be audience costs to the negotiations; further, there may be minor costs associated with time, resources, and personnel devoted to the negotiations. The extremists are also assumed to pay no cost for nonviolent offers that are not accepted or violent threats that successfully return the moderates to the extremists (that is the threat is ‘not accepted’ and the moderates return to the terrorist organization). Later I will discuss the possible implications of changing this assumption with regard to threats of violence.

With regard to the value of the extremists’ offer to the moderates, I assume that nonviolent offers do not have to be sufficient to lure the moderates away from the state in order for the extremists to make them. Such offers may therefore range from zero (do

nothing) to some upper bound determined by resources and motivation, but are exogenously set. With regard to the offer from the state, I assume that the only condition on the offer is that the moderates cease fighting the state and supporting the extremists. This assumption differs from other work on the subject that assumes the moderates must provide counter-terrorism assistance to the state in exchange for the state's offer (Kydd and Walter 2002; Bueno de Mesquita 2005).

My final assumption is that the moderates cannot "play both sides." In the final stage of the game the moderates must choose between the state and the extremists; there is no middle ground and no double cross option. Double cross might be possible in reality, but it would be a very risky option, especially for a moderate wing that is bound to the same geographic area as the extremists and the state (both of whom would be expected to attack upon discovering betrayal).

Payoffs:

Figure 1 shows a diagram of the negotiation game I describe with payoffs listed first for the moderates, second the extremists, and last for the state. The status quo outcome may be achieved in three ways: when the state does not make an offer, the moderates reject the offer, or the moderates accept the offer but succumb to the extremists' violent threat. For the moderates this outcome produces the product of the probability, p , with which the moderates and extremists will be successful against the state and the value, V_m , to the moderates of that victory. The payoff to the extremists is similar, the product of the probability, p , of success and the value, V_e , of that success to the extremists. The state's utility is the product of its probability of success, $1-p$, and its value, V_s , for success.

When the moderates accept the state's offer, σ , and the extremists counter with a threat of violence that the moderates in turn reject, the moderates receive the value, S , of the state's offer minus the cost, α , of the attacks the moderates must endure from the extremists. The extremists receive the probability q that they are successful against the state without the moderates multiplied by their value for success (which I assume to be the same whether they fight with or without the moderates). The state receives the

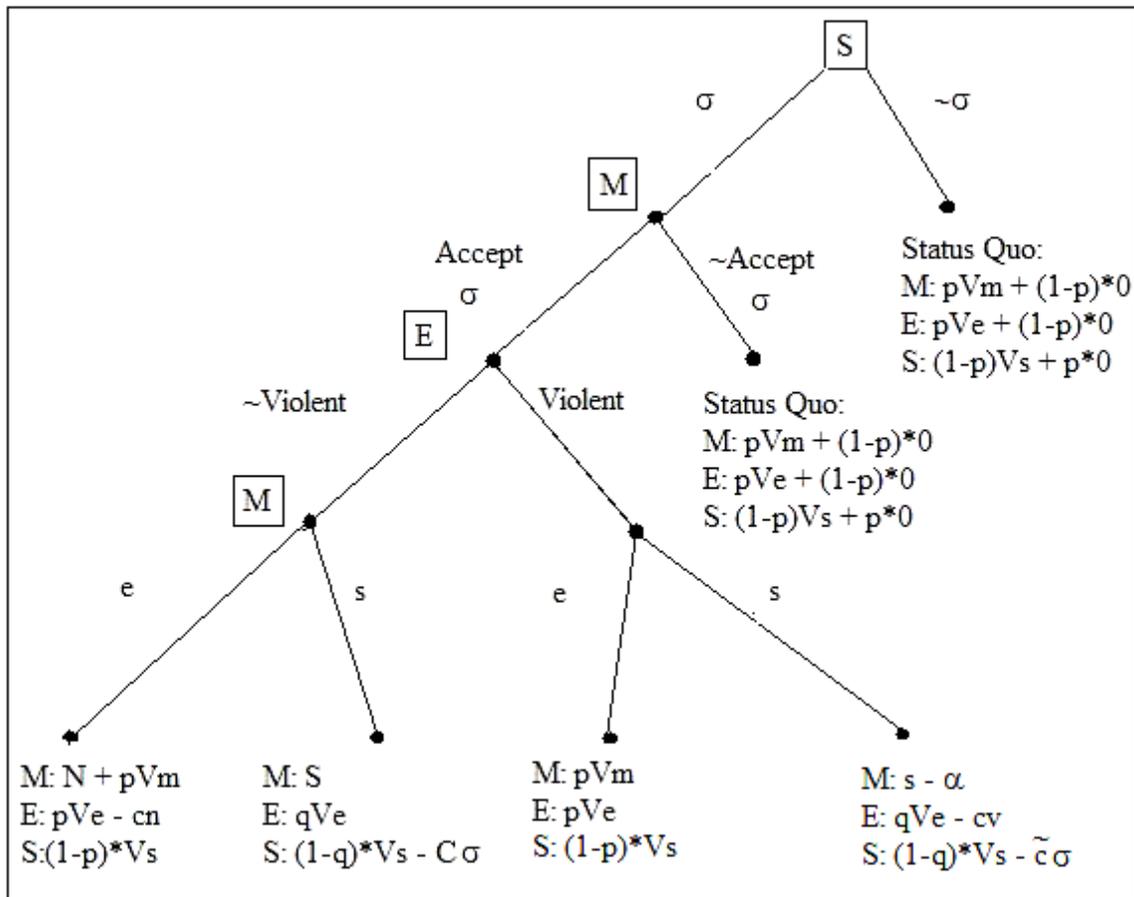


Figure 1: The Negotiation Game

difference of the probability, $1-q$, that it is successful in fighting the extremists only multiplied by its value for victory minus the cost of its offer to the moderates (where \sim over the c represents the increased cost of σ resulting from the extremist violence against the moderates. This increase may be the result of efforts to protect the moderates, the

increased risk of delivering goods or services to a population under attack, or a combination of the above).

If the extremists chose to make a nonviolent counteroffer (which may range from 0, equivalent to a promise not to attack, to offers of goods, services, money, or influence) and the moderates reject this offer, the moderates receive the value of the offer from the state, the extremists receive the value for victory discounted by the probability q that they are successful without the moderates, and the state receives the probability of a state victory weighted by the value of victory to the state less the cost of the nonviolent offer. If the moderates accept the extremists' nonviolent offer they receive the value of that offer plus the value of their status quo payoff, the extremists receive their status quo minus the cost of the nonviolent offer, and the state receives its status quo payoff.

Results and Interpretation

As is standard, I use backward induction to solve the game. I begin by evaluating M's decision between the state and the extremists at stage four of the game. At the history $\{\sigma, A, \sim V\}$, M will choose the state if $S > N + pV_m$, and at the history $\{\sigma, A, V\}$, M will choose the state if $S > pV_m + \alpha$. M's strategy is then determined in part by the relationship between the value of the offer from the state (S), the value of the nonviolent offer from the extremists (N), and the cost of attacks from the extremists (α). The actions of the state, the extremists, and the moderates in stage two will all hinge on this M relationship.

If $N > \alpha$ (i.e. $N + pV_m > \alpha + pV_m$), the moderates will always choose the extremists if $N + pV_m > \alpha + pV_m > S$ (call this case 1); if $N + pV_m > S > \alpha + pV_m$ (case 2), the moderates will choose the extremists when they are nonviolent and the state when the extremists are violent; if $S > N + pV_m > \alpha + pV_m$ (case 3), the moderates will always choose the state in stage four. The extremists' course of action at stage three will then be determined by what it expects the moderates to do in stage three. In case 1, the extremists will always choose violence because $pV_e > pV_e - cn$ is always true. In case two, E will choose nonviolence if $pV_e - cn > qV_e - cv$ and violence if $qV_e - cv > pV_e - cn$. Because p is the probability that the moderates and the extremists are successful together whereas q is the probability that the extremists operating alone are successful, it is reasonable to assume that $p > q$ is always true. It follows that the extremists will only choose violence when the cost of violence is sufficiently low and/or the cost of nonviolence is sufficiently

high to counteract the difference in the probabilities p and q . In case 3, E will always choose nonviolence because $qV_e > qV_e - cv$ is always true.

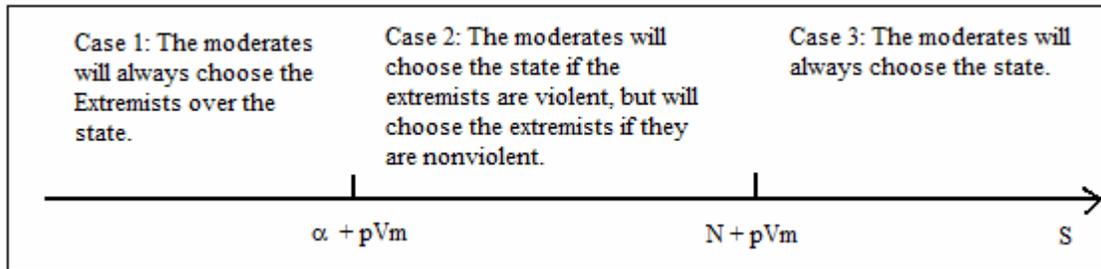


Figure 2: Equilibria under the condition $N > \alpha$

We can next proceed to evaluate M's choices in stage 2, still assuming that $N > \alpha$. In case 1 where M will always side with the extremists in the final stage and the extremists will always use violence, the moderates at stage 2 will never accept the state's offer because pV_m , the payoff that would result from accepting the offer, is never greater than pV_m , the payoff from not accepting.² In case 2, if $pV_e - cn > qV_e - cv$ (meaning the extremists will choose nonviolence; I will call this condition 1), the moderates will always accept the state's offer because $N + pV_m > pV_m$. If the reverse condition is true and the extremists will always choose violence (condition 2), the moderates will accept the state's offer if $S > pV_m + \alpha$, which is one of the defining conditions for case two and is therefore always true under these circumstances. In case 3, M chooses to accept if $S > pV_m$, which is always true since in this case $S > N + pV_m$.

Finally in stage one, I evaluate the state's decision to make (or not make) an offer to the extremists based on the strategies of the other players. In case 1, the strategy pair for M and E is $(\sim AE, V)$. Given this, if the state chooses to make an offer it will receive the payoff $(1-p)V_s$ and if S chooses not to make an offer it will receive $(1-p)V_s$. I

² I assume that because the moderates gain nothing from accepting the state's offer they will choose to take the earlier pV_m payoff. This assumption is reasonable for that reason and because in reality the moderates might risk angering the extremists and reducing their own credibility with both the state and the extremists.

assume that S will only make an offer if the payoff of doing so is greater than not doing so³, therefore I anticipate that S will never make an offer in case 1. In case 2, under condition 1, M and E will play the strategy pair (AE, ~V), and S will therefore receive $(1-p)*V_s$ if it makes an offer and the same if it does not. S should not make an offer in this situation. In case 2, condition 2, M and E will play the strategy pair (AS, V), and S will receive the payoff $(1-q)*V_s - \tilde{c}\sigma$ if it makes an offer; S will make an offer if this value is greater than $(1-p)*V_s$. Because $p > q$ is always true, $1-q$ must be greater than $1-p$, and S will make the offer if the cost of doing so given that the E will choose violence is not so great as to entirely counteract the advantage of the increased probability of winning. In case 3, M and E will play strategy pair (AS, ~V) and the state will make offer σ if $(1-q)*V_s - c\sigma > (1-p)*V_s$. The above condition will be met when the $pV_s - qV_s > c\sigma$, that is when the cost of the offer is less than the increase in the probability that the state is successful gained through the elimination of the moderates from the opposition.

Alternatively, if $\alpha > N$ (i.e. $\alpha + pV_m > N + pV_m$), the moderates will always choose the extremists if $S < N + pV_m < \alpha + pV_m$ (case 1). If $N + pV_m < S < \alpha + pV_m$ (case 2), the moderates will choose the state if the extremists are nonviolent and the extremists if E is violent. If $N + pV_m < \alpha + pV_m < S$ (case 3), the moderates will always choose the state. In case 1 the extremists will always choose violence because $pV_e > pV_e - cn$ is always true. In case 2 the extremists always choose violence because $pV_e > qV_e$ is always true given that $p > q$ is true. In case 3 the extremists never choose violence because $qV_e > qV_e - cv$ is always true.

³ Although I assume that there is no cost associated with making an offer that is rejected, any break with the status quo (such as an offer) should require a positive incentive.

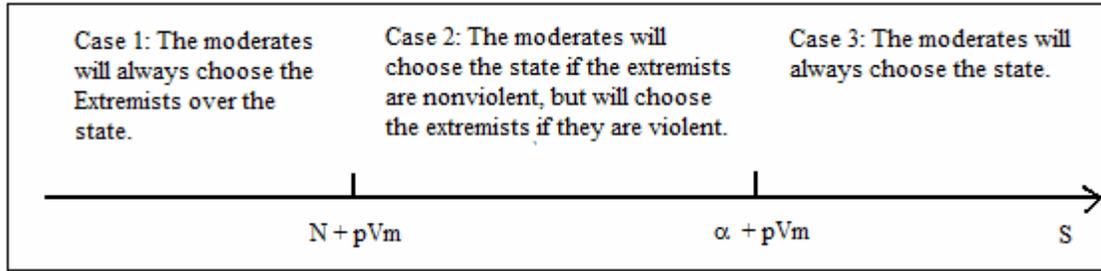


Figure 3: Equilibria under the condition $\alpha > N$

In stage 2 the moderates will always choose to accept the state's offer in case 1. In case 2 the moderates reject the state's offer because pV_m is not greater than pV_m . In case 3 the moderates always accept the state's offer because $S > pV_m$ is always true in this case.

Once again the state decides whether to make an offer based on its expectations regarding the actions of the moderates and the extremists. In case 1 the strategy pair for the M and E is $(\sim AE, V)$. Based on this, the state will not make an offer because the payoff for making an offer is the same as that for not making an offer. In case 2 the strategy pair is the same as that of case 1 and again the state never makes an offer. In case M and E play the strategy pair $(AS, \sim V)$ and the state will make an offer if $(1-q)*V_s - c > (1-p)*V_s$.

This exercise produces two possible equilibria, characterized by the terminal histories $\{ \sigma, A, V, S \}$ and $\{ \sigma, A, \sim V, S \}$, in which the state makes an offer that the moderates then accept.⁴ These equilibria are only possible when the state makes an offer that is more valuable to the moderates than either $\alpha + pV_m$ or $N + pV_m$. When the extremists are more threatening towards the moderates (i.e. $\alpha > N$), the state's offer must be higher than when the extremists are less threatening. The results do indicate an

⁴ Note that the equilibrium characterized by the history $\{ \sigma, A, \sim V, S \}$ Pareto dominates the equilibrium characterized by $\{ \sigma, A, V, S \}$.

additional explanation for the spike in extremist violence that has been observed to accompany negotiations between the state and terrorist moderates. According to this model, extremist violence during or after negotiations may be directed at the moderate wing of the terrorist organization rather than at the state as the explanations supplied by Bueno de Mesquita and Kydd and Walter have suggested. This explanation of extremist violence is not incompatible with either of the aforementioned explanations; rather it provides an additional explanation.

As with all game theoretic models, the results of my model are heavily dependent on my assumptions and on the structure of the game as I have designed it. In the next chapter I discuss the effects of relaxing some of these [not always realistic] assumptions and make slight changes to the game structure.

Implications and Extensions

In its basic form, the game I have designed predicts that that all offers made will be accepted and that the moderates will not return to the extremists after accepting an offer from the state. While the basic game does provide an interesting and useful explanation of increased violence that frequently accompanies negotiations between an opposition movement and the state, there is still much work to be done to bring the model more in line with reality. Empirically we know that negotiations, once begun, are not always successful, but the model thus far does not reflect this. In this section I examine the effects of changing certain assumptions and consider the effects of altering the structure of the game.

The assumption that rejected offers (or threats that need not be acted upon) are costless is not as important to the results as it might be given that I have required that the utility to the state of making an offer be strictly greater than the utility of the status quo and the basic model has not produced equilibria in which state offers are rejected at either the second or the fourth stage. While it would not be a stretch to imagine that there might be audience costs or administrative or diplomatic costs for a state that makes an offer that is ultimately rejected, such costs do not affect the results of this model.

The related assumption that extremist threats are only costly when they are insufficient to deter the moderates from siding with the state is more problematic. In reality we might suspect that extremist threats are more likely to come in the form of low-level violence than in words alone. Dropping the assumption that threats are costless if

they are effective and assuming that threats include some show of force at the time they are made adds a cost to both the extremists and the moderates when the extremists use violence. Adding a cost δcv (where δ is an arbitrarily small number between 0 and 1) to E's payoff when it makes an effective violent threat and a cost $\delta\alpha$ to M's payoff at the same outcome does not alter the terminal histories that produce equilibria, but it does loosen the conditions necessary to reach the nonviolent equilibria with terminal history $\{\sigma, A, \sim V, S\}$. When violent threats are costly the nonviolent equilibria can result in either of the following ways, rather than in only one way as in the basic model:

1. $N + pV_m < S < \alpha - \delta\alpha + pV_m$ (where M chooses the state if E is nonviolent and $S > N + pV_m$ and M chooses the state if E is violent and $S > \alpha - \delta\alpha + pV_m$) and $qV_e > pV_e - \delta cv$ and $(1-q)V_s - c\sigma > (1-p)V_s$.
2. $\alpha - \delta\alpha + pV_m < N + pV_m < S$ and $(1-q)V_s - c\sigma > (1-p)V_s$.

In the basic model the assumption that the cost and value of the extremists' nonviolent offer to the moderates is exogenously set produces the subgame imperfect equilibrium in which the extremists make a threat that is insufficient to deter the moderates from cooperation with the state because it is less costly to make the violent threat than to make the nonviolent offer. This outcome is subgame imperfect because once the moderates have chosen the state the extremists only incentive to follow through on the threat is the desire to maintain its reputation. While reputation is surely a factor in the extremists' calculation, the extremists under these circumstances would prefer an outcome in which they could make a nonviolent offer that would be low enough to be rejected by the moderates thereby netting the extremists a payoff of qV_e rather than $qV_e - cv$. To make the choice of nonviolent offer endogenous to the game will require changing the structure of the game such that the extremists choose between a violent threat (which must have a cost greater than zero if it is ineffective) and a nonviolent offer

ranging continuously between 0 and some upper bound. In this way the outcome in which the extremists are forced to conduct costly and ineffective attacks against the moderates is eliminated except under incomplete information.

The assumption of complete information is particularly problematic. Although groups with a long history of violent interaction sharing a limited geographical area are probably relatively familiar with each others capabilities and preferences, it is certainly plausible that they might make miscalculations. As an example of the importance of this assumption to the results, imagine a state that is uncertain of the value the extremists place on the moderates. Such a state might make an offer that is doomed to fail if it underestimates that value or it might neglect to make an offer that would succeed if it overestimates that value. Where the state makes an offer that is doomed to fail, the moderates will accept that offer initially if they expect to receive a valuable nonviolent offer from extremists uncertain of moderates' value for remaining with the organization. In this example, adding uncertainty to the model produces a situation in which the moderates are able to play the state against the extremists and receive a greater utility than if the state had not made an offer.

Dropping the assumption of complete information generates a much more complicated game. If I assume that the state and the extremists are uncertain of the moderates level of resolve in compromising with the state (which will be determined by the value of the V_m relative to the values of S , N and α), the state will be less certain of the utility of making an offer and the extremists will be less certain of the effectiveness any counteroffer will have.

In the game depicted in Figure 2, Nature determines the value (high, medium, or low) the moderates place on victory. Uncertain of the level Nature has chosen, the state next decides whether to make an offer to the moderates. If the state does not make an offer the game ends. If the state makes an offer and the moderates are of the highest V_m type the offer will be rejected; if the moderates have a medium level of V_m they may accept or reject the offer; if they are of the lowest V_m type they will accept the state's offer.

Given that the moderates have accepted the offer from the state, the extremists know that they are not the highest V_m type, but remain uncertain whether they are of the middle or low type. The extremists' decision to make a particular counteroffer will be subject to error at this point. If the extremists believe that the medium and low V_m types of moderates are equally likely, they will be more cautious about making violent threats that are costly if ineffective because if either type is equally likely the moderates are more likely to side with the state. Alternatively, if the extremists believe that the moderates are more likely to be the medium V_m type they may be more likely to use a violent threat than a nonviolent offer because if the moderates are of the medium V_m type, rather than the low V_m type, they are more likely to side with the extremists regardless of the tactic the extremists choose. If a threat is successful in reuniting the moderates with the extremists, it is costless; the same is not true of a nonviolent offer which is only costless when it is ineffective. The extremists know that some higher V_m types of moderates may have an incentive to mimic the actions of the lower V_m types to gain the value of a nonviolent offer from the extremists. In other words, some types of

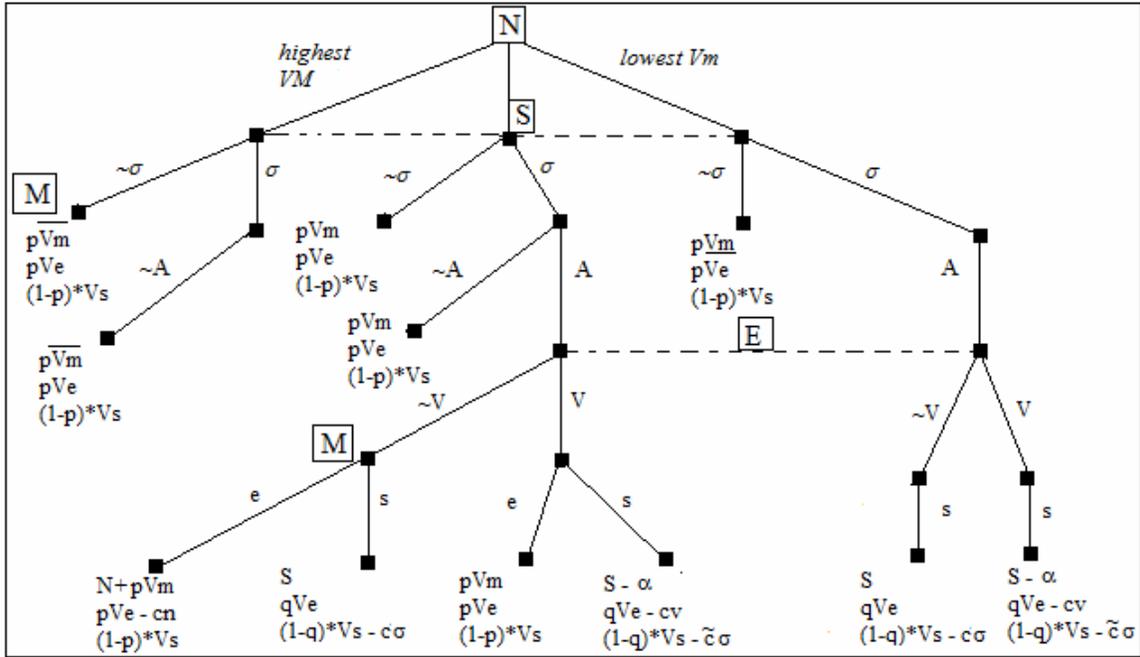


Figure 4: The Negotiation Game with Incomplete Information

moderates, knowing they will side with the extremists in the end, may choose to initiate negotiations with the state in order to gain more power within the terrorist organization.

Extremists who believe they are facing the higher V_m type of moderate will choose to make a violent threat so that they can keep the moderates on their side without paying the cost associated with a nonviolent offer. If the extremists are incorrect in their belief that they are facing a higher V_m type of moderate who will be easily dissuaded from negotiations with the state, they may find themselves in the position of paying ex post for a threat that seemed costless ex ante and losing the moderates.

Violence Directed at Targets within the Opposition

The basic model and the extended version lead me to expect that, under some circumstances, the extremist faction within an opposition movement will respond to negotiations between the moderate faction of the same movement and the state by attacking the moderates. This means that the increased violence that frequently accompanies peace settlements may not be directed at the state at all but is instead directed at the moderate opposition in an attempt to “spoil” negotiations. Intuitively this result makes sense—under some circumstances the moderate opposition might be an easier target or the extremists might have reason to believe that the moderates can more easily be dissuaded from negotiating with the state than the state could be dissuaded from negotiating with the moderates. Attacking opposition forces or leaders who negotiate with the state also has the added benefit for extremists of deterring future attempts at cooperation.

Below I discuss al-Qaeda as an extremist spoiler using violence to prevent Iraqi civilians from switching their allegiance to the United States intervention forces. While this might currently be the most visible example of this sort of spoiling, other instances of extremist violence used to prevent moderates from negotiating abound—both within terrorist groups and within the parties to Civil Wars. The beginning of the 1994 Rwandan genocide in which extremist Hutus slaughtered moderate Hutus (thereby simultaneously eliminating powerful pro-peace actors and discouraging others from

taking a stand to advocate peace) as well as Tutsis demonstrates that this is not a tactic exclusive to what we commonly think of as terrorist organizations.

Iraq

Recent attempts at negotiation between the United States and insurgents in Iraq have drawn the ire of al-Qaeda forces operating within the country. As some groups of insurgents have begun to distance themselves from the violence of al-Qaeda and move towards cooperation with the United States, al-Qaeda violence towards these insurgent groups has increased. On again, off again peace talks between the insurgents and the United States and Iraqi governments have provoked threats and attacks against moderate insurgents coming from both al-Qaeda and other extreme insurgent groups.

In February 2006, peace talks between tribal leaders and American and Iraqi representatives reportedly led to the death of one Sunni participant. The *Sunday Times* quoted the response of an al-Qaeda member from the slain leader's tribe, "He was a traitor who deserved to be killed" (London, 5 February 2006). In September of the same year the *International Herald Tribune* quoted a man who claimed to be a senior leader within al-Qaeda saying "We have the right to kill all infidels, like the police and army and all those who support them. This tribal system is un-Islamic. We are proud to kill tribal leaders who are helping the Americans" (18 September 2006).

With the murder of Mejbil al-Sheik Isa and Damin al-Obeidi in July of 2005, extremists appeared to have made good on their threats to kill any Sunni Arabs who participated in the process of designing a new constitution for Iraq. The *New York Times* reported this response to the killings from a Shiite member of the National Assembly, "This is the hand of terrorism, which does not want the country to move toward stability

and to write the constitution in harmony with all Iraqis” (20 July 2005). As negotiations with the government become more appealing to moderate insurgents and al-Qaeda supporters, hard line al-Qaeda members become more threatening in their relations with these moderates.

Bargaining with an Exit Option

The negotiation game with incomplete information suggests that some types of moderates who have a lower value for victory against the state may agree to negotiate with the state but would also be willing to accept a non-violent offer of concessions from the extremists. These moderates are playing the extremists and the state against each other to get the best deal—through initiating contact with the government they have signaled their willingness to use the exit option represented by the government. As discussed earlier, if the extremists believe this signal to be credible and if they have a high enough value for the participation of the moderates in the opposition the extremists will make a nonviolent offer of concessions to the moderates.

This type of equilibrium is made more difficult to identify by the fact that it can be difficult to determine the motives of actors entering and leaving peace talks, particularly if those actors have an incentive (such as maintaining their credibility with the government so that they might maintain the exit option of negotiating with the government) to hide those motives. It is also possible that this type of equilibrium might be less common if it is more costly for extremists to offer concessions (which, depending on the type of concession, might require greater fundraising and organizational ability than attacks which can be perpetrated by only a few individuals using relatively inexpensive supplies; alternatively concessions might require giving in to the moderates on ideological or tactical issues) than to wage attacks or if fear of extremist attacks is perceived to be a stronger motivator than concessions. If it is true that concessions are

more costly and difficult than threats, their use might be expected only when the extremists control the majority of the organization's resources or when extremists have the backing of a state sponsor willing to supply the resources necessary for concessions to moderates.

This type of spoiling behavior might also be less likely if extremists buy off moderates before they take the step of approaching the government (or responding to government approaches). In such cases, because of the difficulty of observing the inner-workings of a terrorist or other opposition network from the outside, it may be impossible to determine whether the moderates threatened exit and whether they would have been spoilers had they not been dissuaded in advance from engaging in peace talks.

Conclusion

By modeling the interaction between the moderate and extremist factions of a terrorist organization and the government in a strategic fashion it is possible to begin to understand when peace negotiations might succeed and when they might be accompanied by violence. This model suggests conditions under which negotiations between the state and opposition moderates might occur and offers two explanations for the failure of such negotiations. These two explanations are additional to those offered by the models of Kydd and Walter (2002), Bueno de Mesquita (2005), Bapat (2006), Bueno de Mesquita and Dickson (2007), and Arce and Sandler (2007).

More precisely the model provides a third explanation for the increase in violence that frequently accompanies peace processes. Kydd and Walter (2002) modeled an increase in violence resulting from extremist spoiler violence against government-friendly targets in an attempt to undermine government confidence in the moderates. Bueno de Mesquita (2005) modeled an increase in violence resulting from the exit of the moderates from the organization's decision making process. This analysis suggests that the increased violence might also be due to extremist attacks against moderates willing to negotiate with the government.

There is much work remaining to be done in this area of research. This model suggests some directions in which future work might proceed. The model here suggests new approaches to peace negotiations with terrorists that need to be explored more fully

to develop policies that will incorporate an understanding of the needs of moderates willing to abandon the tactics of terrorism.

On a formal note, while I, like other scholars in the field, have disaggregated the terrorist organizations, the government continues to be considered as a unitary actor in most work on the subject, including this paper. Future formal work might also consider further the implications of dropping or changing the assumptions that my model and those of others have relied upon, thereby increasing the reach of these models and approaching more useful conclusions.

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