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Terrorism, ideology and target selection

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Terrorism, Ideology and Target Selection*

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Abstract

How do ideological motivations influence terrorists' choice of targets? While the ideological determinants of target selection have been the topic of anedoctal conjecture, no rigorous empirical work has been done to answer this question. Furthermore, no research has addressed the role of ideology in terrorist decision-making under strategic constraints. To address this gap in the literature, I present a theoretical and empirical model. Using novel data on Western European terrorism from 1965 to 2005 and a multinomial logistic extension of statistical backwards induction, I find that ideology is the only consistent predictor of target selection under strategic constraints. These results are particularly robust for nationalist/separatist groups, even when excluding domestic terrorism in the United Kingdom and Spain. I also find strong evidence that government responses are affected by recent tactical success and institutional path dependence.

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1 Introduction

For more than a century, Western Europe has been a locus of terrorism. Continental terrorist groups—clandestine social networks of armed political activists—have carried out thousands of attacks, many fatal, against civilians, representatives of local, state and national governments and critical infrastructure. While these groups are bound together through their use of violence and underground status, they are often motivated by fundamentally different ideologies and work to accomplish various goals, some of which are diametrically opposed to those of other terrorists. These ideologies form the core belief and value systems each group uses to define their political identity. Consider, for example, the emergence of the Provisional Irish Republican Army (PIRA) and the subsequent development of reactionary groups like the Ulster Volunteer Force (UVF). PIRA's political identity was defined as a nationalist-separatist challenge to the British presence in Northern Ireland, while the UVF constructed their identity as a sectarian, anti-Republican network seeking to eradicate government subversion. A group's ideological justification for turning to violence, particularly premeditated fatal attacks, also generate bounds on acceptable levels and targets of deadly force. Groups operating outside these bounds risk intranetwork fractionalization (where group members defect and form alternative groups) and communal withdrawal of financial and political support (when the community for which a group fights and from which they acquire critical capital condemn their choices through divestment). Perforce, ideology plays a crucuial role in target selection.

Terrorists, across national units and time, have also encountered shifting government responses to their activities. Some Western European countries have sought to reduce the threat of terrorism through legal reform, while others have responded using their preponderance of military and tactical power. In response to the Red Brigades's kidnapping and killing of the prime minister, the Italian government pursued significant legal reform, leading to thousands of arrests and convictions. On the other hand, the British government employed a more forceful approach to terrorism emanating from Northern Ireland (Miller, 2007). Indeed, each government strategy had varying levels of success in promoting the government's goal of ending domestic terrorism and created political and security externalities for other European countries.[1] Beyond shifting the landscape of regional

[1] Consider, for example, the relocation of Basque terrorists following shifts in Spanish and Italian counterterrorism policies in the late 1970s.

counterterrorism tactics, individual government responses influenced the strategic constraints under which continental clandestine groups operated.

Taken together, ideological motivations and government strategy are binding constraints on the target selection, but the impact of ideology on target selection is the subject of little scholarly attention. Drawing on several Western European case studies, Drake argues that ideology "provides terrorists with the moral and political vision that inspires their violence, shapes the way in which they see the world, and defines how they judge the actions of people and institution"(1998, 78). Hoffman also points out that terrorists respond to the demands of their constituents by tailoring their mode of attack and target selection to coincide with their ideological framework (1998, 158-179). When groups attack targets outside the subset of acceptable victims, communities respond by cutting off support. Indeed, the Red Brigades's decision to assasinate Guido Rossa, a local-level communist union official, sparked significant backlash among factory workers, setting off large antiterrorism demonstrations (Drake, 1998, 54). Unfortunately, we still know little about how, if at all, target selection is conditioned on government responses.

To address this gap in our understanding of terrorist decisionmaking, I develop a theoretical and empirical model to identify the influence of ideology on target selection under strategic constraints. To wit, I examine how terrorists condition their target selection on their ideological framework *and* the anticipated government response. The formal model and subsequent quantitative analysis assume that terrorists are boundedly rational actors. Given the wealth of primary evidence gathered on terrorists and their decision-making over the past half century, this assumption is no longer particularly controversial. However, for both substantive and methodological reasons, I believe that terrorists often respond imperfectly to their strategic environment and, to state my argument plainly, make mistakes. A growing body of evidence supports this claim, demonstrating the numerous technical and tactical mishaps terrorists experience.

Drawing on the theoretical model, I demonstrate the importance of a group's ideological framework in determining the targets they attack. The model also highlights the potential importance of tactical success and failure for governments choosing to take forceful or legal action against domestic attackers. This technique also sheds light on how institutional histories influence how governments respond to attacks; sluggish policy change and material sunk costs often keep countries from shifting their respective counterterrorism tactics significantly. Confirming the theoretical model, my empir-

ical analysis demonstrates that ideological motivations are the most consistent predictor of target selection, even when other relevant strategic considerations are present. This result is particularly robust for nationalist-separatist groups and sectarian, reactionary groups. Importantly, these main effects are not sensitive to the exclusion of the United Kingdom or Spain, the two countries in Western Europe that experienced the highest number of attacks in the post World War II era. I also find strong evidence that tactical success and institutional path dependence figure prominently as determinants of state action against terror.

This paper contributes to the growing terrorism studies literature by unpacking an important substantive and theoretical puzzle regarding target selection. The empirical approach also formalizes a critical extension to the statistical estimation of recursive strategic games where players choice sets are fairly large. Importantly, while this paper presents the first rigorous evidence that ideology matters even within strategic environments, it also emphasizes a new research agenda regarding group-level data.

The paper is organized as follows. In the following section, I discuss how ideology influences target selection. I also emphasize constraints on government counterterrorism strategies. In the third section, I develop a theoretical model of target selection and government response, considering subgame perfect equilibria. I then discuss the empirical design and data, extending the statistical backwards induction method proposed by Bas, Signorino and Walker (2008) to multinomial choice models. In the fifth section, I present the main results, consider several robustness checks and discuss how the theoretical expectations and empirical findings congeal. I conclude by emphasizing a new research agenda regarding group-level data and religious terrorism.

2 Ideology, Target Selection & Strategic Constraints

How does ideology influence target selection? By demarcating the acceptable targets of terrorist activity. Following Drake, I define ideology as "the beliefs, values, principles and objectives—however ill-defined or tenuous—by which a group defines its distinctive political identity and aims"(1998, 54-55). For most groups, these belief and value systems are codified by founding members and change only subtlely over the course of an organization's life span. A group's ideology defines their political identity by delimiting an in-group—group leaders, member and supporters—and an

out-group—the population a group seeks to coerce through violent opposition.

While it is reasonable to argue variation in ideological motivation influences target selection, does this proposition obtain empirically? Consider the simple crosstabulation below (Table 1). This table drawn from data on fatal terrorism in Western Europe from 1965 to 2005 (I discuss the data in more detail below). These patterns confirm several (informal) hypotheses discussed by Drake (1998) and Hoffman (1998). First, nationalist-separatist groups focus most of their resources on security officers—members of military and police institutions. Second, sectarian and extreme right wing groups target civilians—in an attempt to undermine support for nationalist and left wing groups—and attack rival groups attempting to undermine the existing state of affairs. Third, extreme left wing groups, like the Red Brigade in Italy and Red Army Faction in Germany, are quite discriminate, choosing to target government security forces and political leaders at disproportionate rates.

Table 1: Target Selection by Ideological Classification

Target	Nationalist/Separatist	Sectarian	Left Wing	Right Wing	Total
Political Leadership	85	2	44	3	134
Security	1,204	16	150	21	1,391
Civilian	712	702	89	127	1,630
Rival Terrorists	139	105	7	27	278
Total	2,140	825	290	178	3,433

$\chi_2 = 1000$; $Pr = 0.000$

But how do Western European governments respond to attacks? Do they employ unconditional tactics or do they tailor their responses to the target of terrorist attack? The table below (Table 2) demonstrates that governments do adjust their response based on target type. Several patterns are particularly interesting. First, in the modal response, governments take no action against terrorists following an attack. Second, when civilians are targeted, the government rarely responds with force, instead choosing to employ juridical measures (like pursuing arrests and convictions) to reduce the risk of future terrorism. Third, when security officers are targeted, governments are most likely (relative the other target types) to respond with force. Fourth, in almost a third of cases, attacks on rival terrorists are followed by legal action taken by the incumbent regime. The same is true of attacks on political leaders.

Given the implausibility that such patterns would occur by random chance ($Pr = 0.000$ for

Table 2: Government Response by Target

Target	No Action	Forceful	Juridical	Total
Political Leadership	77	11	47	135
Security	785	205	409	1,399
Civilian	1,098	183	573	1,854
Rival Terrorists	178	19	81	278
Total	2,138	418	1,110	3,666

$\chi_2 = 27.9264$; $Pr = 0.000$

both contingency tables), it is quite clear that target selection is both a product and determinant of the strategic interaction between terrorist groups and governments. But does a group's ideological framework also influence government strategy directly? The following table (Table 3) demonstrates that such a claim is untenable; governments do not condition their response on the attacking group's ideological character in a statistically meaningful manner. In expectation, each type of group is (almost) equally likely to be the subject of a legal response. Similar conclusions hold for the other two government response categories.

Table 3: Government Response by Attacker Ideology

Ideology	No Action	Forceful	Juridical	Total
Nationalist/Separatist	1,229	269	642	2,140
Sectarian	469	91	265	825
Left Wing	157	38	95	290
Right Wing	104	16	58	178
Total	1,959	414	1,060	3,433

$\chi_2 = 4.8384$; $Pr = 0.565$

These tables illustrate that ideology and target selection matter with respect to government counterterrorism efforts, yet it remains unclear if the anticipated relationship between ideology and target choice holds under strategic constraints. How might government strategy influence these tactical decisions? By making certain populations—like security officers—prohibitively costly to target. Consequently, the costs associated with target selection are a function of both a group's ideological framework and the anticipated government response. To consider this dynamic formally, the next section introduces a theoretical model of this strategic interaction between ideologically motivated groups and strategic governments.

3 Theoretical Model

To consider the interaction between group ideology, target selection and government counterterrorism strategy, I develop a simple theoretical model. As I discuss below, this game, represented in Figure 1, captures all of the relevant dynamics influencing target selection within strategic environments. This game also allows analysis of the conditions under which terrorist groups acknowledge the anticipated government response and still attack certain populations. I contend that these choices can be attributed to groups' ideological motivations for violence.

The model has two players: a terrorist group and an incumbent government. The game maintains the following structure. The terrorist group chooses to attack a civilian, security, political leadership or rival terrorist target. The group may also end the game by choosing not to attack (the terminal node yields zero utility for both players). Observing the group's target selection, the government responds by using physical force, juridical (legal) mechanisms or doing nothing at all (this final category includes public condemnation of terrorism). Game parameters, equilibrium conditions and empirical expectations are reviewed below.

3.1 Parameters

If a terrorist group decides not to attack, I standardize the payoff for both players to zero. I discuss this choice substantively in the following section.

If a terrorist group attacks a civilian population and the government does nothing in response, the group receives the payoff $d_c + a_c$ while the government receives $-d_c$. d_c indicates the damage inflicted on the government, which is a partial function of the number of victims killed in an attack. This parameter takes a positive valuation for the group and negative valuation for the government. a_c captures the support a particular attack receives from group members and the sympathetic community. If a target falls within the ideological demarcation for acceptable victims of violence, a_c takes a positive valuation. If, on the other hand, the target category does not fall within one of the acceptable out-group categories (a left wing group attacking communist activists, for example), a_c takes a negative valuation.

If a terrorist group attacks a civilian population and the government pursues a forceful response, the group receives the payoff $d_c + a_c - f_c$ while the government receives $-d_c + y_f + I_f - c_f$. f_c is

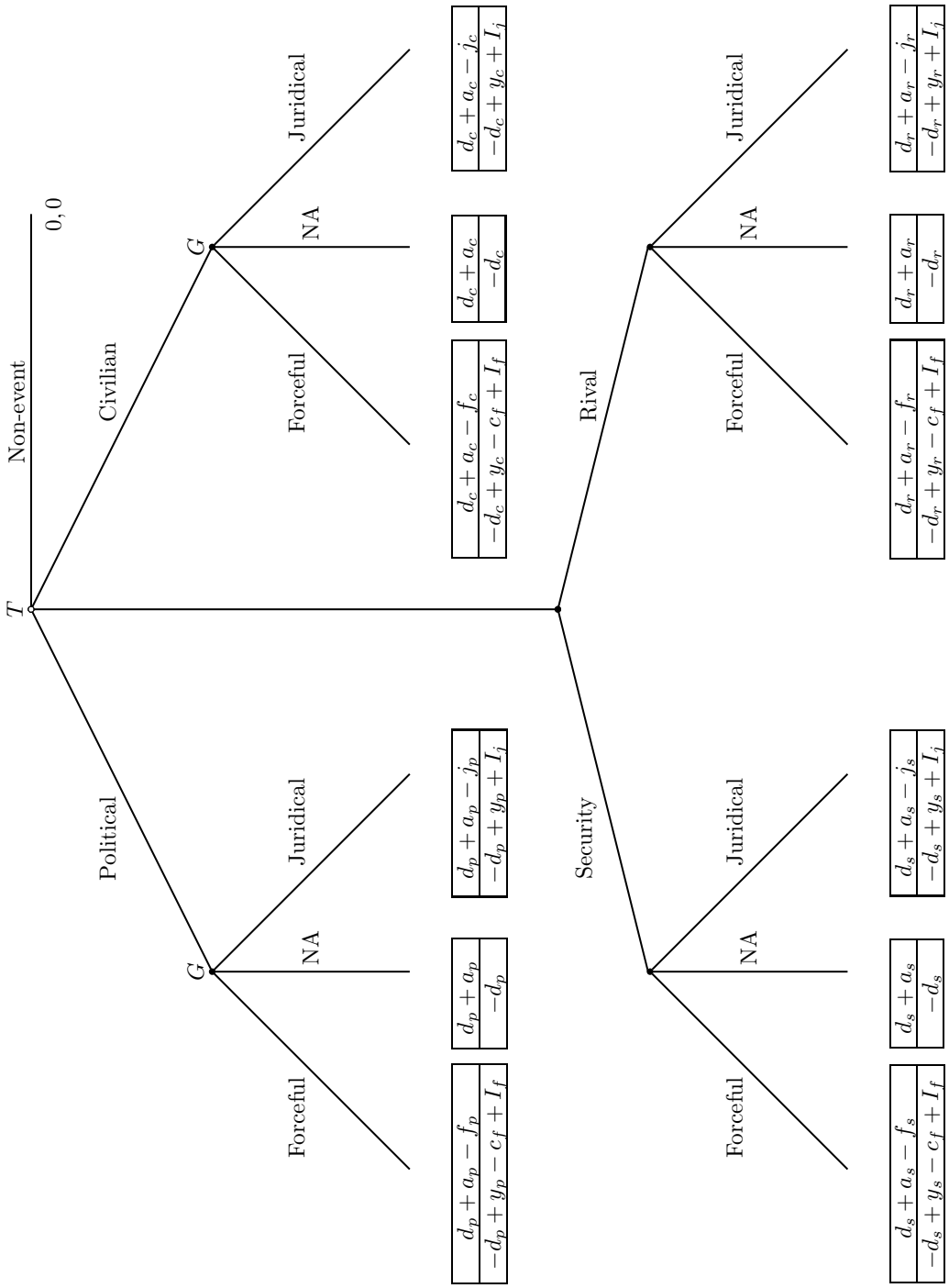

Figure 1: The Target Selection Game

the damage the government's forceful response inflicts on the terrorist group. y_f is the decreasing marginal return to attacking groups as they age. The government has the greatest return to the use of force when a group is youngest and the government can disable their infrastructure before it matures. I_f captures both the damage a government has inflicted on terrorists in the past and the institutional history of a country's counterterrorism struggle. Security institutions are particularly sticky and difficult to overturn after they are established. Depending on the severity of the event, institutional responses may shift significantly (from forceful to legal, for example) but such a shift almost always follows a stochastic event. Significantly, note that the institutional history is not conditioned on target type. This does not, however, ignore the divergent government strategies employed against various target types. Instead, this modeling choice captures whether the historical character of counterterrorism also figures prominently in government decision-making amidst crisis. Following a growing literature on government restraint following tactical failure (Miller, 2007; Carter, 2013), I include c_f to denote the number of civilians recently killed or injured by the government during a forceful response to an attack.

If a terrorist group attacks a civilian population and the government pursues a juridical response, the group receives the payoff $d_c + a_c - j_c$ while the government receives $-d_c + y_f + I_j$. j_c is the damage the government's legal response inflicts on the terrorist group. This can be measured by the number of terrorists arrested or captured. y_j is the decreasing marginal return to pursuing legal action against groups as they age. The government receives the greatest return to capital investment in indictment proceedings and imprisonment when a group is youngest and the government can remove critical members from the group hierarchy. I_j captures both the number of terrorists recently arrested and subsequently convicted (a measure of operational damage inflicted on the group) and the institutional legal history of a country's counterterrorism struggle. Like security institutions, legal institutions are only weakly susceptible to significant change; once a government sets the precedent that it will pursue legal action against terrorists, it is difficult to shift course. Notice that the government is not punished for arrests that do not lead to conviction.[2] Furthermore, while the number of civilian casualties due to recent government action is not included in this legal action utility function explicitly, governments do sidestep public backlash to draconian security

[2]I exclude this factor due to the high level of heterogeneity in causal pathways influencing trial outcomes, many of which are orthogonal to the present analysis.

policies (that lead to civilian deaths or injuries) by pursuing legal action instead.

The remaining three target parameters are evaluated identically, conditioning on the target type.

3.2 Equilibrium Conjectures

In this section, I consider the conditions under which a set of equilibria exist (on and off the path).[3] The first three conditions I consider do not obtain empirically, but yield insights on how group decision-making is influenced by government responses to target selection.

If governments respond forcefully to all target types equally (f_i is held constant for all target types i), target selection hinges on the damage a group can inflict on the target and whether the target type is within the ideological bounds of violence. Consider the case of a sectarian group, the Ulster Volunteer Force. Given their ideological character, attacks on political leaders are excluded from consideration; sectarian groups aim to eradicate government subversion. Similarly, attacks on security targets are almost exclusively off limits. These results hold due to the highly negative valuation of a_p and a_s respectively.[4] Sectarian groups are more likely than other group types to attack civilians in an effort to undermine support for left wing and nationalist-separatist groups. Therefore, the group chooses the option that maximizes the damage inflicted on their opponents. This can either be through a civilian attack or direct attack on rivals. Given the distribution noted in Table 1, sectarian groups disproportionately target civilians, indicating that, all else equal, d_c exceeds d_r. Consequently, sectarian groups target civilians where possible and rivals when necessary. While I only explicitly consider the sectarian case, this solution approach applies to other ideological categories without loss of generality.

Notice that either of the other unconditional government strategies—always respond to terrorism with legal action and always do nothing—lead to the same general result: target selection hinges on the damage a group can inflict on the target and whether the target type is within the group's ideological bounds of violence. Importantly, a group cannot gamble on communal support being a discontinuous function of the damage inflicted on the target. That is to say that sympathetic communities will not condone attacks on targets outside the group's ideological bandwidth

[3] These equiibria are subgame perfert, yet I omit such language for this draft. I also omit formal derivations; available upon request.

[4] Given the distribution in Table 1, I conjecture that $|a_p| > |a_s|$ for sectarian and right wing groups.

of guilt simply because the group was able to carry out a particularly elaborate and consequential (fatal) plan. If anything, group supporters will divest *en masse* precisely under these conditions.

Yet, given Table 2 discussed above, it is quite clear that government's tailor their responses to group target selection. I consider an additional government strategy refinement.

If governments condition their forceful or legal responses on whether the target is a civilian or security officer, nationalist-separatist and left wing groups consider whether the returns for each target—$d_c + a_c$ and $d_s + a_s$ respectively—exceed the consequence of government action. Where such a condition is not strictly positive, groups are either indifferent between taking action and not carrying out an attack or strongly prefer not attacking. Naturally, however, it appears that the latter condition frequently holds for nationalist-separatist and left wing groups: $d_s + a_s > f_s$. A similar solution applies to alternative conditions on government response.

But why do governments condition their responses on target type? Because the damage inflicted by a group is a function of the target attacked. Consider, on the contrary, the case where $y_i > |d_i|$ for all i target types. The government choice hinges on the balance between recent tactical failures (c_f) and a government's institutional history regarding the use of force (I_f) and legal action (I_j). Where $I_f - c_f > I_j$, governments use force for all target types. If, on the other hand, $I_f - c_f < I_j$ governments use juridical mechanisms to combat terrorist attacks for all target populations.

3.3 Empirical Expectations

What empirical expectations stem from the theoretical model? First, ideology plays a crucial role in determining target selection since attacks on targets beyond certain bounds become prohibitively costly (and difficult to justify)[5], especially as the damage inflicted by the group on the target increases. Second, given the conditions associated with government response above, tactical success/failure and past institutional behavior figure prominently in the government's strategic decision to take action using force or legal means. Third, if there are decreasing returns to confronting groups as they age, group age will influence government response to target types differently.[6]

[5] See Drake (1998) for an excellent review of relevant group attempts to justify unpopular attacks.

[6] This is due to the implausibility of the condition noted above: $y_i > |d_i|$ for all i target types. Related aspects of the government's choice correlate with this intuition.

4 Empirical Model

To estimate an empirical model with the same structure as the theoretical game discussed above, I follow Carter (2013) and employ statistical backwards induction. A refinement of early work by Signorino (1999; 2003), Bas, Signorino and Walker (2008) present statistical backwards induction is a straightforward means of estimating recursive strategic games (games with complete information) statistically. I detail this approach and propose a multinomial logistic extension of the method. Of particular significance, this extension resolves the estimation of base (reference) category utilities explicitly.

4.1 Estimation Procedure

Statistical backwards induction is analogous to backwards induction applied to a strategic game. Starting from the lowest decision nodes, one estimates the likelihood of a given player's choice using the variable representations of the utility functions. These estimates are typically derived from a either a logistic or probit model. The choice of the model type is a function of the distribution assumed for the decision-maker's utility function error term (type I extreme value or normal). Using these likelihoods estimates, the researcher then weighs the covariates composing the other player's utility function. One then estimates the second player's strategic choice using a logistic or probit model and the weighted covariates.

Given this estimation approach, the likelihood estimates—predicted probabilities of each possible choice—are treated as deterministic, even though the estimate itself is indeterminate. Consequently, the standard errors for the second stage models are artificially deflated; these standard error estimates are biased and inconsistent (Bas, Signorino and Walker, 2008, 27,29). Nonparametric bootstrapped standard errors resolve this problem.

4.2 Multinomial Logistic Extension of Statistical Backwards Induction

Extending statistical backwards induction to strategic games with more than two choices for each player is straightforward but cumbersome. To clarify, I discuss each step used to generate the results noted below. These steps generalize to similar theoretical models.

First, I estimate a multinomial logistic model for the government's choice conditional on reaching

each particular decision node. This is to say that I evaluate four separate models since there are four nodes at which a government must decide to take action. Based on these models, I predict the probability that a government will respond forcefully, legally or do nothing conditional on whether the terrorist group has attacked a civilian, security, political or rival terrorist target.

Second, using these predicted probabilities, I weigh the covariates that compose the terrorist group's utility function. For example, consider that $P1$, $P2$ and $P3$ represent the probability of a government doing nothing, using force and employing juridical mechanisms respectively, conditional on the group attacking a political leadership target. A stylized utility function for the group is composed of the damage inflicted on the government, the number of terrorists recently killed or injured by security forces and the number of terrorists recently arrested and/or convicted. The first quantity—the damage inflicted on the government—is common to the group's utility functions independent of the government's choice; terrorists gain from damage inflicted regardless of the government's response. The second quantity—the number of terrorists recently killed or injured by security forces—only enters the terrorist's utility function if the government decides to take forceful measures against the group. Consequently, this variable is weighted by $P2$, the likelihood that a group will be the subject of forceful state action conditional on the group attacking a political leader. The third quantity—the number of terrorists recently arrested and/or convicted—only enters the group's utility function if the government decides to pursue legal action against group members. Therefore, this variable is weighted by $P3$, the likelihood that a group will be the target of juridical action by the state (again, conditional on the group attacking a political leader). This process is replicated for each choice a terrorist group could make. In total, twelve predicted probabilities are generated and employed to weigh the covariates associated with each of four secondary multinomial logistic models associated with each target type.

Third, using these estimates, I extract only the information relevant to each target type. Importantly, each multinomial logistic model yields information about how the covariates influence movement from the base (reference) category to each other level of the dependent variable. Continuing the illustration above, the covariates weighed by $P2$ and $P3$ are only meaningful estimates of the effect of moving from the base category—terrorists deciding not to attack—to the decision to attack a political leader (since that is the attack type for which the predicted probabilities about government response, $P2$ and $P3$, were generated). Although our model has five levels (four target

types and the nonevent, reference category) only the coefficient estimates for the political leader target category are reported for this model. These are the utility parameters associated with this particular choice. The same process is replicated for the other three target types; four separate tables are presented, one for each target type.

4.3 Reference Category Utility Functions

There is, however, one significant indeterminant element of statistical backwards induction: how to calculate the payoff associated with the reference category. There are two straightforward solutions. First, one can standardize the utility of the reference category to zero. Second, the researcher can, following Leblang (2003), treat the intercept of the utility function as if it were the utility for the reference category. The first solution is reasonable, substantively, under very limited conditions. In the present analysis, I believe it is reasonable to argue that groups derive approximately zero utility from the act of not attacking. Consequently, I standardize this payoff (consider Figures 1 and 2). However, it makes little sense to standardize the reference category for governments in this game. The reference category for the government decision is not taking action against the group after it has attacked. Why is standardizing the payoff to zero untenable in this circumstance? Because the damage inflicted by the terrorist group is unmitigated by the government's nonresponse. The payoff for this strategy cannot reasonably be standardized to zero; governments face some, albeit potentially marginal, costs for not responding after an attack.

Does Leblang's payoff concept provide purchase in this application? Leblang's (2003) approach only works when the utility function for reference category and other categories do not share the same covariates. If these category payoffs are a function of even a single overlapping variable, an identification problem emerges since the intercept value only holds when the model parameters take the value zero. This does not hold in the present analysis since the government's utility functions for not responding and responding through force or legal means all include a common covariate: the death toll of the terrorist's attack. What's more, even if the utility functions were completely distinct, under a multinomial logistic model, each additional category introduces another intercept. Leblang's model includes only binary choices, whereas the present model explicitly models the government's choice among three options. The payoff associated with the reference category would then take two distinct, yet statistically meaningful values, neither of which is a substantively or

theoretically superior approximation of the payoff value for the reference category.

I implement the following reference category payoff concept. I estimate a logistic function of the government's payoff for not taking action after a terrorist attack using the other two choices as the reference category. The model includes only the variables for which the utility functions overlap. The regressor and parameter notation follow from Figure 2. The logistic functions are defined as follows:

$$U_G(y_T = P, y_G = NA) = y_{G1} = X_{G1}\beta_{G1} + \epsilon_{G1}, \tag{4.1}$$

$$U_G(y_T = S, y_G = NA) = y_{G4} = X_{G4}\beta_{G4} + \epsilon_{G4}, \tag{4.2}$$

$$U_G(y_T = C, y_G = NA) = y_{G7} = X_{G7}\beta_{G7} + \epsilon_{G7}, \tag{4.3}$$

$$U_G(y_T = R, y_G = NA) = y_{G10} = X_{G10}\beta_{G10} + \epsilon_{G10}, \tag{4.4}$$

where,

$$y_{Gi} = \begin{cases} 1 & \text{if the government's response = no action} \\ 0 & \text{otherwise.} \end{cases}$$

In this case, the model is estimated using the covariate that captures the death toll associated with the attack (X_{G1}, X_{G4}, X_{G7}, and X_{G10} respectively). This approach provides a unique payoff estimate for each target type and this estimate is obtained even though the covariate of interest is shared across utility functions. I present the stylized regressor notation in Figure 2.[7]

[7]Type I extreme value error terms are excluded from the regressor tree for space considerations.

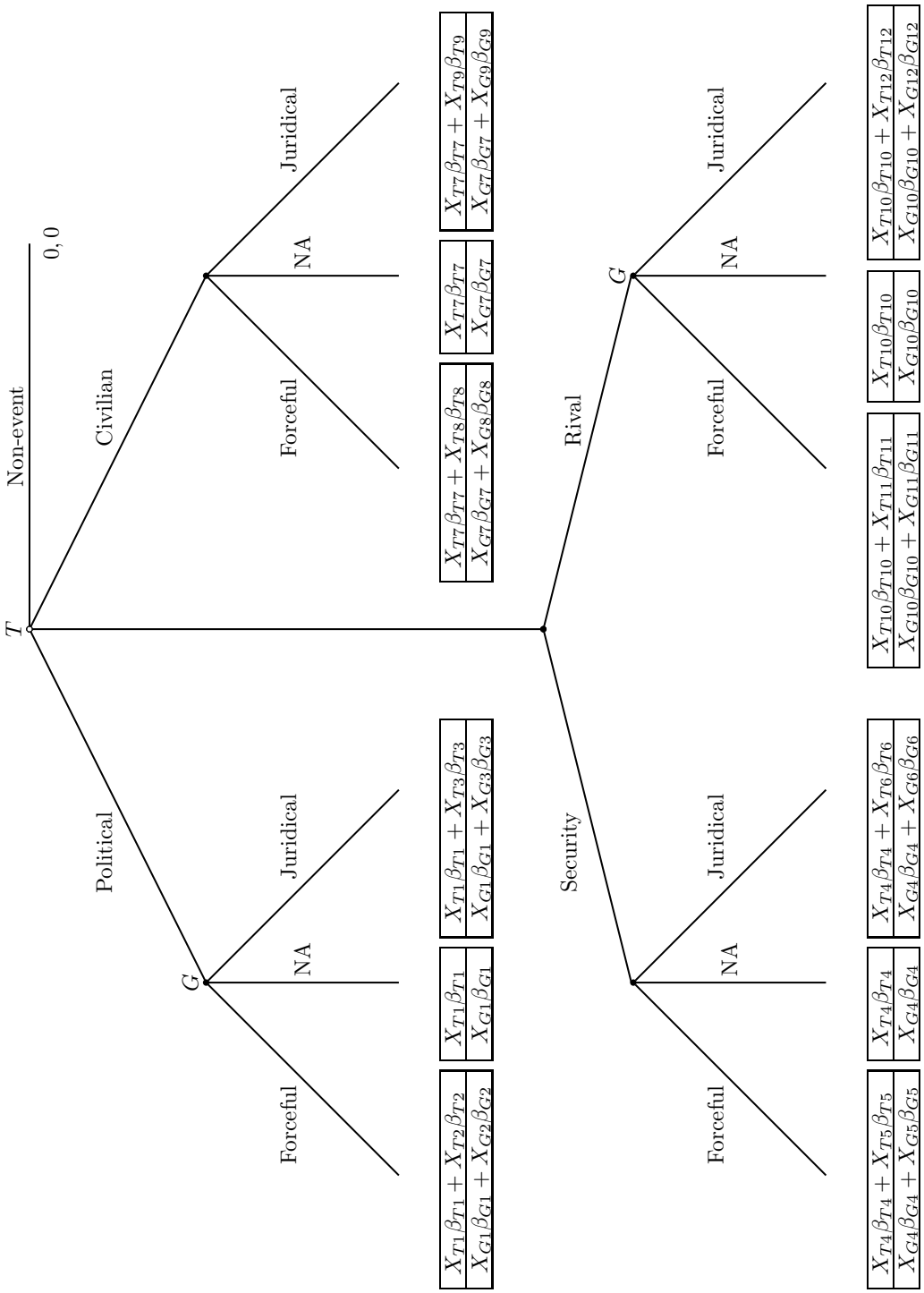

Figure 2: The Target Selection Model with Regressors and Parameters

5 Data

I draw the data used to identify the empirical model's main effects from two sources: the Domestic Terrorist Victims (DTV; (de la Calle and Sanchez-Cuenza, 2011)) data set and Terrorism in Western Europe: Event Data (TWEED; (Engene, 2007)). Both data sources cover Western Europe during the post-World War II era and provide exceptional detail regarding terrorist attacks and government responses. I use the DTV to generate attack observations of fatal terrorism from 1965 to 2005. This source compiles information from thousands of primary and secondary documents in Catalan, French, Spanish, German, English, Portuguese and Italian (de la Calle and Sanchez-Cuenza, 2011). By using regional sources to identify fatal attacks, de la Calle and Sanchez-Cuenca claim to address significant underreporting of terrorism events in other data sets. This level of documentation also makes it possible to identify the perpetrating group's ideological character for almost all attack observations (99%; no other data provide similar coverage levels).[8]

TWEED provides the best available data on government counterterrorism efforts. TWEED provides information on arrests, convictions, executions and forceful action against terrorist groups. This source also includes data on government action against activists and organized criminal groups. Since neither of these groups are included in my analysis, I exclude all government action taken against these actors. Furthermore, while regional sources may yield higher-order details on terrorist attacks, *Keesing's Record of World Events*—the news source used by Engene (2007) to code government responses—provides precisely the type of information I theorize terrorists will consider when selecting targets.[9]

Using a tailored coding rule, I combine information from these two sources. I discuss this procedure and sensitivity to alternative conditions below.

5.1 Targets & Government Strategies

The targets of an attack are coded as military, police, paramilitaries (rival terrorist groups), politicians and public officials and unaffiliated civilians. For the purposes of the present analysis, I combine the military and police categories into a single security target identification. Of particular

[8] Worth noting, the missing group-level covariates in other data sets are not omitted at random. Consequently, these DTV data qualities make it particularly attractive for the present analysis.

[9] As Engene notes, "the emphaiss in the coverage of *Keesing's* is to present essential and factual information on prominent or important political, social and economic developments in all the world's countries" (2007, 113).

importance, paramilitaries in the context of this data are not private military agents. Instead, they are members of rival terrorist organizations.[10]

The DTV data set is distributed as an victim level spreadsheet, with information about each person killed through domestic terrorist action in Western Europe. Following their suggestion, I consider domestic terrorism as an actor qualification, rather than a motive-based evaluation (de la Calle and Sanchez-Cuenza, 2011). Stated plainly, if a citizen of Italy carries out an attack on behalf of an international solidarity movement in Florence, the attack is included in the data. If, however, an Algerian group carried out an attack in Paris, this observation is excluded from the data. I transform the data into attack observations using a unique event identifier.[11]

TWEED includes information on governments' use of legal and forceful action against terrorist groups. Using the date of an attack, I construct a 30 day window during which a government can take action. Any domestic government action taken in this window is identified and evaluated. If a government takes both legal and forceful action in response to an attack, I code the preponderant action the government pursues within the 30 day window. While ties rarely occur in the data (where governments take an equal number of legal and forceful actions following an attack and the number of these actions exceeds zero), I code the government response as forceful. I examined a sequence of potential window sizes and settled on the 30 day window for two primary reasons. First, a seven day window is rarely enough time for a government to pursue rigorous legal action against a group. Consequently, a shorter time frame would underestimate the number of juridical responses over the course of the data. Second, a 100 or 180 day window is too wide to capture meaningful variation in proximate government responses and dramatically increases the error rate in association of attacks and responses (since multiple attacks are likely to occur before the window terminates, particularly in the 180 day sampling procedure).

5.2 Ideological Classifications & Government Histories

In accordance with the crosstabulations above, the ideological character of a perpetrating group are coded among four primary categories: left wing, right wing, nationalist-separatist and sectarian (reactionary). The latter two categories are exemplified by the PIRA and UVF, while the Red

[10] I thank Luis de la Calle for a helpful correspondence regarding the coding scheme for this concept.

[11] In rare cases, an attack population is composed of multiple target types. In these cases, I code the preponderance of victims.

Brigades and various elements of the Argetine Anticommunist Alliance represent the former two ideologies. Left wing terrorism seeks government regime change through mass mobilization, while right wing groups seek government regime change through authoritarianism. Nationalist-separatist groups seek expulsion of foreign powers, typically in the pursuit of self-determination and sectarian groups emerge as conservative opposition to left wing and nationalist terrorism, expending most of their capital working to unhinge attempts to subvert government power. I cross-check this coding scheme with the Terrorist Unit Registry Code (TURC) data set, which captures a number of group-level covariates (Wright, 2013). I find almost complete parsimony across ideological classifications in the two data sources, increasing my confidence in the subsequent analysis.

To capture the anticipated government response, I consider average number of arrests, convictions and executions that follow government legal responses in the 180 days prior to attack. Unlike, for example, only evaluating the government's response to the penultimate attack, this coding scheme captures a greater depth of information available to terrorists. I also generate information on the average number of terrorists and civilians killed or injured by the state in response to a terrorist attack in the 180 days prior to a specific action. Importantly, these four concepts (terrorists killed or injured and civilians killed or injured) are separate quantities in the data, allowing for more precise estimation of the effects of tactical success and failure on future government action and terrorist target selection.

Finally, I trace a government's institutional history with respect to legal and forceful responses to terror. To clarify, I calculate the total number of actions a government has taken in each category in the 180 days preceding an attack. These variables provide meaningful information about how past government action predicts future government responses to terror. Indeed, these covariates will allow me to examine if institutional path dependence influences government action.

6 Main Results

I now consider the main results of the empirical analysis. Each table presents the utility associated with a specific terminal node in both the game tree (Figure 1) and the regressor tree (Figure 2). For example, Table 4 presents the government utilities for no response conditioned on each type of target (political, security, civilian and rival terrorist). Tables 5 and 6 present the government utilities for taking forceful or legal action respectively. Similarly, Table 7 displays the terrorist utilities for attacking a political target. Notice, however, that a terrorist only receives the utility associated with a forceful government response (Terrorists Killed or Injured in Recent Gvoernment Response) if the government takes forceful action. The effect of arrests and convictions is similarly conditioned on the type of government response used against the group. Tables 8, 9, and 10 are formulated similarly.

6.1 Selecting Responses to Terror

Table 4 makes it quite clear that the utility associated with a government's decision not to respond to a fatal act of terror is a negative function of the number of individuals killed in the attack. These results are particularly significant when the targeted population is either civilian or a rival terrorist cell. While the logic of the former is quite clear (more disutility accrues to governments who fail to respond to violence against civilian bystanders), the latter is puzzling. Why would the government face such severe disutility for failing to respond to such attacks? The answer, at least in part, lies with the groups who execute such rivalry attacks at the highest rate, specifically sectarian groups. These groups, that emerge in opposition to the deployment of left wing and nationalist-separatist violence against civilians and the state, target rival paramilitary groups in a manner that directly challenges the state's legitimate monopoly on violence. Consequently, the government faces significant political costs for remaining idle while sectarian terrorists exact violence on other terrorists.

Tables 5 and 6 indicate that governments rarely face negative consequences associated with tactical failures (killing civilians in counterterrorism efforts) but do receive the benefits of tactical success. Importantly, the institutional history variables (recent forceful or legal action) provide strong evidence that a government's decision is dependent on previous counterterrorism efforts.

To specify, notice that the government utilities are positive and statistically significant for taking forceful action conditional on having taken military action against terrorists in the 180 days prior to the latest attack. The utilities associated with taking legal action conditional on a government recently taken military action are negative (and, in some cases, statistically significant), while the utilities associated with taking legal action conditional on a government recently taken juridical action are strictly positive and always significant predictors of the government's response.

The decreasing marginal return to acting against terrorist groups as they age is another prominent feature of these results. Governments reap less utility from responding with force or legal action as a group matures and develops an enhanced capacity to thwart government action. Following this logic, all else equal, governments must invest more capital into pursuing terrorists as they mature, yielding (exponentially) less utility at each sequential marginal level.

6.2 Selecting Targets

Tables 7, 8, 9 and 10 present the terrorist utilities for attacking particular target types. While the disutility associated with forceful and legal action (the final seven variables in each table) are consistently signed properly (negative), only one in 28 of these quantities is statistically significant. In this case, terrorist attacks on civilians are deterred by forceful action taken by the government.

Of particular importance for the theoretical argument made above, ideological characterstics are the only consistent predictors of target selection. The positive utility associated with nationalist-separatist and sectarian ideologies indicate when these characterstics impel target selection. In line with our expectations, terrorist returns for attacking security officers are strongest for nationalist-separatist groups. Furthermore, terrorist utilities for targeting civilians and rivals are strongest for sectarian groups that aim to undermine support for nationalist-separatist and left wing groups through direct and indirect attacks on their members and sponsors.

Table 4: Government Utilities: No Response

	(1) Political Target	(2) Security Target	(3) Civilian Target	(4) Rival Target
Attack Casualties	-0.304	-0.0110	-0.0378**	-0.207**
	(-0.86)	(-0.61)	(-2.00)	(-2.48)
Constant	0.631	0.261***	0.424***	0.813***
	(1.08)	(5.35)	(6.09)	(5.78)
N	135	1399	1854	278

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

6.3 Indicators of Model Effects & Fit

Given that the model coefficients provide little 'actual' information, how might we assess the relative impact of ideology on the player's strategic decision-making? By considering the relative risk ratio (RRR) associated with transformations on covariate values. The RRR refers to the odds, in this case, of a specific target being selected relative a terrorist choosing not to attack at all. These odds are obtained as a function of, for instance, a group's ideological characteristics. I present a simple subset of those ideological covariates which obtain statistical significance in the second stage models. The RRR associated with nationalist-separatist ideological characteristics is 87.15 (Table 7), 197.15 (Table 8), 512.24 (Table 9), and 972.14 (Table 10). When sectarian characteristics are statistically significant predictors of target selection (Tables 9 and 10), the RRR exceeds 1000 in all cases. These RRR values outweigh the magnitude of other influential factors in the second stage model. Consequently, the effects of ideology on target selection are quite profound (in absolute and relative terms).

The four government models reduce proportional prediction error by 39%, 14%, 17% and 25% respectively, while each of the terrorist target selection models reduce this error by at least 40%. What's more, some of the second stage models predict roughly 95% of all targets correctly. What do these preliminary statistics reveal? That the models are quite effective at anticipating government responses and channeling these strategic influences into the secondary target selection stage.

Table 5: Government Utilities: Forceful Response

	(1) Political Target	(2) Security Target	(3) Civilian Target	(4) Rival Target
Act of Organized Terror	11.34	13.64	0.945***	-21.60
	(0.00)	(0.02)	(2.72)	(-0.02)
Group Age	-0.0544	-0.0358***	-0.0345***	0.00362
	(-0.70)	(-2.69)	(-2.70)	(0.10)
Attack Casualties	1.469	0.118**	0.0213	-13.45
	(1.62)	(2.21)	(0.65)	(-0.02)
Terrorists Killed by Gov.	-18.17	0.368**	0.492***	0.709
	(-1.21)	(2.34)	(2.92)	(1.43)
Civilians Killed by Gov.	-19.34	-0.150	-0.548	-101.8
	(-0.20)	(-0.25)	(-0.68)	(-0.00)
Arrests	-0.338	-0.0475*	0.0462*	-0.0680
	(-1.11)	(-1.69)	(1.71)	(-0.40)
Convictions	0.00882	0.00852	-0.0251	0.0337
	(0.10)	(0.41)	(-0.67)	(0.68)
Executions	11.13	4.398**	8.386***	
	(0.09)	(1.98)	(2.65)	
Recent Forceful Action	4.590**	0.00976***	0.0110***	1.312***
	(2.30)	(2.77)	(3.38)	(3.67)
Recent Juridical Action	-0.217	0.346***	0.288***	-0.218
	(-0.90)	(10.60)	(9.55)	(-1.07)
Constant	-17.38	-16.03	-3.480***	31.69
	(-0.01)	(-0.03)	(-9.38)	(.)
N	135	1399	1854	278

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Government Utilities: Juridical Response

	(1) Political Target	(2) Security Target	(3) Civilian Target	(4) Rival Target
Act of Organized Terror	14.57	-0.0705	0.281	-18.98
	(0.01)	(-0.13)	(1.61)	(-0.02)
Group Age	-0.0517**	-0.0138	-0.0150*	-0.0166
	(-2.27)	(-1.51)	(-1.95)	(-0.97)
Attack Casualties	-0.214	-0.0182	0.0296	0.349
	(-0.37)	(-0.31)	(1.26)	(1.17)
Terrorists Killed by Gov.	1.308*	-0.00743	0.0182	0.183
	(1.92)	(-0.05)	(0.12)	(0.51)
Civilians Killed by Gov.	-1.843	-0.612	-0.586	0.543
	(-0.86)	(-1.17)	(-1.03)	(0.21)
Arrests	0.213**	0.0311**	0.0770***	0.216**
	(2.40)	(2.43)	(4.27)	(2.20)
Convictions	0.0295	0.00907	0.0165	-0.0128
	(1.33)	(0.55)	(0.88)	(-0.32)
Executions	-20.26	-0.658	3.466	
	(-0.00)	(-0.18)	(0.95)	
Past Forceful Action	-0.730*	-0.0173***	-0.0160***	-0.284
	(-1.79)	(-2.89)	(-3.00)	(-1.41)
Past Juridical	0.388***	0.339***	0.337***	0.416***
	(3.99)	(11.95)	(14.58)	(5.30)
Constant	-15.86	-1.463***	-2.001***	16.68
	(-0.01)	(-2.61)	(-10.39)	(0.02)
N	135	1399	1854	278

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Terrorist Utilities: Political Target

Act of Organized Terror	1.81 (0.63)
Group Age	-0.489 (-1.50)
Attack Casualties	6.85 (0.76)
Nationalist/Separatist Ideology	4.46* (1.59)
Left Wing Ideology	1.27 (.40)
Right Wing Ideology	-3.30 (-0.61)
Sectarian Ideology	4.16 (0.98)
Terrorists Killed in Recent Government Response	-16.65 (-0.53)
Terrorists Injured in Recent Government Response	-11.49 (-0.84)
Civilians Killed in Recent Government Response	-19.34 (-0.63)
Civilians Injured in Recent Government Response	76.79 (0.05)
Arrests	0.079 (0.81)
Convictions	-0.092 (-0.60)
Executions	-875.54 (0)
N	4171

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Terrorist Utilities: Security Target

Act of Organized Terror	1.90(0.65)
Group Age	-.5*(-1.57)
Attack Casualties	8.33 (.97)
Nationalist/Separatist Ideology	5.28** (2.30)
Left Wing Ideology	.95 (.31)
Right Wing Ideology	-2.53 (-.56)
Sectarian Ideology	4.61 (1.30)
Terrorists Killed in Recent Government Response	-3.29 (-.49)
Terrorists Injured in Recent Government Response	-15.5 (-1.37)
Civilians Killed in Recent Government Response	-16.4 (-.36)
Civilians Injured in Recent Government Response	-6.11 (-.08)
Arrests	.264 (1.13)
Convictions	-.18 (-.81)
Executions	49.27 (.03)
N	4171

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Terrorist Utilities: Civilian Target

Act of Organized Terror	.273 (.10)
Group Age	-.478 (-1.57)
Attack Casualties	8.36 (1.02)
Nationalist/Separatist Ideology	6.23* (3.41)
Left Wing Ideology	2.03 (.64)
Right Wing Ideology	.284 (.06)
Sectarian Ideology	9.67*** (3.23)
Terrorists Killed in Recent Government Response	-5.81 (-.82)
Terrorists Injured in Recent Government Response	-17.4*** (-1.68)
Civilians Killed in Recent Government Response	-2.21(-0.05)
Civilians Injured in Recent Government Response	-7.67(-0.07)
Arrests	0.173 (1.06)
Convictions	-0.196 (-1.35)
Executions	-39.86 (-.40)
N	4171

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Terrorist Utilities: Rival Target

Act of Organized Terror	-.534(0.11)
Group Age	-.475*(-1.60)
Attack Casualties	7.08 (.87)
Nationalist/Separatist Ideology	6.874* (1.69)
Left Wing Ideology	1.48 (.53)
Right Wing Ideology	.89 (.30)
Sectarian Ideology	10.02* (1.81)
Terrorists Killed in Recent Government Response	-2.56 (-.55)
Terrorists Injured in Recent Government Response	-11.12 (-1.3)
Civilians Killed in Recent Government Response	-98900 (.0)
Civilians Injured in Recent Government Response	2.67 (.14)
Arrests	.075 (.58)
Convictions	-.174 (-.6)
Executions	-113.295 (-.82)
N	4171

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

6.4 Robustness Checks

I now consider several robustness checks. First, I examine whether an incumbent regime's ideological orientation (left or right) influences the main effects significantly. Second, I explore how newly elected governments respond to terrorism. Drawing on data from the Comparative Political Data Set (CPDS), I test sensitivity of the main results to several measures of government ideological orientation and recent government change (Armingeon et al., 2012). Including these measures in my analysis does not alter the main effects significantly. Indeed, the primary reasons these concepts are excluded from the main analysis are (1) to avoid overcomplication of the models and (2) the reductions in sample size that stem from data coverage.[12] These alternative results do indicate that a government's ideology and tenure matter for target selection, confirming the evidence presented by Carter (2013).

Third, I explore sensitivity to alternative coding procedures for generating terrorist nonevents in the data. In the current analysis, I code nonevents using the following rule. After carrying out an attack, I consider a terrorist group as active until the final year of the data.[13] For each five year block where a group does not carry out an attack, I generate a nonevent. This generates 504 terrorist nonevents in total. Evaluating an annual specification of this rule generates more than 2000 attacks. Under either rule, however, the main effects change very little. Ideological characteristics consistently predict target selection.

Fourth, I estimate the main effects, dropping the United Kingdom and Spain from the sample. Readers may be reasonably suspicious that the results are driven primarily by various elements of the Irish Republican Army and Basque Homeland and Freedom. Together, these groups perpetrate a majority of the fatal Western European attacks in the post-World War II era. Dropping them from the analysis, however, while moderating the coefficient values, does not substantially alter the results displayed in Tables 4 through 10. In this alternative analysis, ideological characterstics are still the only consistent predictor of target selection. This result should give readers greater confidence that the primary claim (and results) of this paper are not an artifact of British and Spanish terrorism.

[12] Sample sizes for some of the conditional government models make convergence with a large number of covariates difficult.

[13] Naturally, this assumes that grouops are not eliminated by the government. In future research, I will merge additional information on the years during which groups are active.

Finally, does sampling only lethal attacks underestimate the importance of other, non-fatal terrorist tactics? Indeed, this particular empirical strategy ignores target selection related to attacks that do not involve casualties. While the results stemming from the present empirical analysis may not generalize to these non-lethal types of terror, they do provide important insights about high stakes target selection, where attacks beyond the boundaries of a group's ideological framework are associated with palpable condemnation from group members and supporters. Future research should investigate the degree to which these stakes influence target selection, even when attacks do not involve casualties.

7 Conclusion

In this paper, I develop a theoretical and empirical model to identify the influence of ideology on target selection under strategic constraints. I identify the conditions under which terrorists adjust their target selection with respect to their ideological framework *and* the anticipated government response. Using the theoretical model, I demonstrate the importance of a group's ideological framework in determining the targets they attack. The model also highlights the importance of tactical success for governments choosing to take forceful or legal action against domestic attackers. This technique sheds light on how institutional histories influence how governments respond to attacks; langourous policy makers and bureacratic institutions often keep countries from shuffling their respective counterterrorism tactics significantly.

Confirming the theoretical model, this paper presents the first rigorous evidence that ideology influences terrorist target selection even within strategic environments. Stated plainly, the empirical analysis demonstrates that ideological motivations are the most consistent predictor of target selection, even when other relevant strategic considerations are present. This result is particularly robust for nationalist-separatist groups and sectarian groups. Importantly, these main effects are not sensitive to the exclusion of the United Kingdom or Spain.

I also find that tactical success and institutional path dependence figure prominently as determinants of state action against terror. Of note, governments reap less utility from responding with force or legal action as a group matures and develops an enhanced capacity to thwart government action, yet forceful government action can deter terrorists from attacking civilian populations.

Building on an expanding body of research that takes group-level covariates seriously (Aksoy and Carter, 2012; Heger, Jung and Wong, 2012; Piazza, 2009), this paper highlights the importance of gathering fine-grained information about terrorist group characterstics. Without this type of specificity, future research will suffer from significant loss of information regarding variation in group types. This paper, combined with the TURC system (Wright, 2013), attempt to bridge the gap between mainstream data sources on terrorism and empirical analysis of terrorist behavior.

This paper opens up another important avenue for future research. Historically, religious terrorism has been quite rare in Western Europe. Yet, as Piazza (2009) notes, religiously motivated political violence, particularly Islamic terrorism, is a burgeoning global phenomena. I plan to extend the current analysis to explore the role of religion as an ideological justification for terrorism. This project will improve our understanding of target selection; as a fact of history and puzzle of contemporary politics.

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