2. Terrorism: considering new policies

Bruno S. Frey and Simon Luechinger

Politics focuses almost exclusively on deterrence in its fight against terrorism. In striking contrast to the prominence given to deterrence, the evaluation of this strategy by many renowned terrorism experts is unfavorable. Hoffman (1998, p. 61), for example, claims that countless times 'attempts by the ruling regime to deter further violence ... backfired catastrophically'.

In this chapter we argue that there are superior strategies to deterrence. In contrast to raising the direct costs of terrorism, as is the case with a deterrence policy, terrorists can be effectively dissuaded from attacking either if the utility of committing an attack to the terrorists is lowered or if the opportunity costs are raised.

We propose three strategies to deal with terrorism, the first two aiming at lowering the utility of terrorism to terrorists, the third attempting to raise the opportunity costs:

1. Polycentricity. A system with many different centers is more stable than a more centralized one. When one part of the system is negatively affected, one or several other parts can take over. A prospective target of terrorist attacks can reduce its vulnerability by decentralizing the economy, the polity and the society. Terrorists are aware of this reduced vulnerability and are, therefore, dissuaded from attacking.

2. Diffusing media attention. The relationship between terrorists and the media can be described as 'symbiotic'. Both want to make news. One way to ensure that terrorists derive lower benefits from terrorism would be for the government to ascertain that a particular terrorist act is not attributed to a particular terrorist group. This prevents terrorists receiving credit for the act, and thereby gaining full public attention for having committed it. The government must see to it that no particular terrorist group is able to monopolize media attention.

3. Positive incentives. Positive incentives can be offered to actual and prospective terrorists not to engage in violent acts. Offering valuable alternatives raises the opportunity costs of terrorism. Two specific strategies are suggested: reintegrating terrorists and providing access
to the political process, and welcoming repentants. The interaction between terrorists and government is transformed into a positive-sum game: both sides benefit. The proposals break the organizational and mental dependence of persons on the terrorist organizations. In contrast, deterrence policy locks prospective and actual terrorists into their organization and provides them with no alternatives but to stay on. The strategy proposed here undermines the cohesiveness of the terrorist organization. The incentive to leave is an ever-present threat to the organization. With good outside offers available to the members of a terrorist group, its leaders tend to lose control. The terrorist organization's effectiveness is thereby reduced. Although positive incentives may be insufficient to affect the hard core of the terrorist organization, they may still be effective in dissuading the sympathizers and supporters from supporting the terrorists.

The three strategies proposed here are not confined to, nor primarily aimed at, combating Islamic terrorism. It should be realized that this is only one, though today topical, form of terrorism. Unfortunately, there have always been terrorist movements all over the world. Examples are the Basque Country (ETA), Northern Ireland (IRA), Palestine and Israel (PFLP, PLO, Hamas and so on), Kurdistan (PKK), Sri Lanka (LTTE), Columbia (FARC), or RAF in Germany and the Brigade Rosse in Italy.

Below, we present the polycentricity strategy and the diffusion of media attention strategy. We then present the positive incentives strategy and provide evidence for the effectiveness of this strategy based on (1) the Northern Ireland conflict, and (2) empirical analyses on the relationship between terrorism and civil democracy.

**THE POLYCENTRICITY STRATEGY**

Terrorists seek to destabilize the polity and damage the economy (see Frey et al., 2004a, 2004b for a survey on the economic consequences of terrorism and an estimate of the overall consequences of terrorism in France, the UK and Ireland). One way to immunize a country against terrorist attack and therewith provide disincentives for terrorists is to decentralize various aspects of the society (see more fully Frey and Luecinger, 2004).

**Making Prospective Targets Safer**

A system with many different centers is more stable than a more centralized one. When one part of the system is negatively affected, one or several other parts can take over. The more centers of power there are in a country, the less the damage caused in the case of an attack.

The increased resilience of a system due to decentralization is emphasized in many contributions to this volume, for example by Lave et al. in chapter 13 for electricity systems, and by Little in chapter 5 for protection against urban terrorism and vehicle bombings. According to Lave et al. electricity systems are highly vulnerable to terrorist attacks, but this vulnerability can be reduced by decentralized generation, diversified fuel supply and generation technology, and a multiplicity of transmission lines to deliver electricity. Spreading risk by choosing multiple locations for certain activities is also one of several options discussed by Little for managing the risk of vehicle bomb attack.

The terrorists anticipate that less damage will be caused in a decentralized society and have, for this reason, a lower incentive to attack in the first place. In contrast, in a centralized system, most decision-making power with respect to the economy, polity and society takes place in one location. This central power is an ideal target for terrorists, and therefore runs a greater risk of being attacked.

In the following, polycentricity in the economy, polity and other parts of society are discussed.

**Market polycentricity**

A market economy is based on an extreme form of decentralization of decision-making and implementation. Under competitive conditions, the suppliers are able to substitute completely for one other. If one of them is eradicated due to a terrorist attack, the other suppliers are able to fill the void. They are prepared, and have an incentive, to step in. No special governmental plans have to be set up for such substitution. The more an economy functions according to market principles, the less vulnerable it is to terrorist attacks. According to Rose et al. (chapter 15 in this volume), market economies are inherently resilient to adverse shocks not only because of substitution (in their case energy input substitution) but also because price signals initiate the relocation of resources.

The resilience of a market economy may be illustrated by 9/11. Though this was so far the gravest terrorist attack on the USA, the economic system as a whole was hardly affected. Due to its decentralized market economy, the United States' economy was only very marginally hit; the many other centers of economic activity were not directly affected at all. Even in Manhattan, the recovery was remarkably quick (see Drennan, chapter 9 in this volume, for evidence on Manhattan's post 9/11 recovery). This does not, of course, mean that there were no human or material losses. But the point is that even this dreadful blow was not able seriously to damage a
decentralized economy like the American one. Many of the high costs were the result of the political response to the attack, and not the result of the attack itself. Viewed from this perspective, the attack was far from being a victory to the terrorists, but rather demonstrated the strength of a decentralized economic system.

Political Decentralization

Political polyarchy may take two forms: horizontal decentralization or separation of powers, and vertical decentralization or federalism:

1. Separation of powers: political authority is distributed over a number of different political actors. Most important is the classical separation of power between government, legislature and courts.
2. Federalism: political power can also be spatially decentralized and be divided over various levels of government.

Spatial decentralization and polycentric society

The high population density typical for large urban areas makes them ideal targets for terrorists and other aggressors. The spatial decentralization of the population is of particular importance in cases where terrorists use biological and chemical weapons. In areas of very dense population, viruses (such as smallpox) introduced by terrorists spread quickly, leading to many casualties in a short period of time.

The danger of physical centralization has been demonstrated by the two terrorist attacks on New York’s Twin Towers. The first attack in 1993 destroyed a central command post of the emergency services. Nevertheless, the Mayor of New York, Rudolph Giuliani, ordered the establishment of a new central Office of Emergency Management in a building next to the World Trade Centre. On 11 September 2001, this office, which was intended to coordinate all police and support units in the event of a catastrophe, including terrorist attacks, was again destroyed and proved to be useless.

The Tendency to Centralize

When faced with terrorism, most countries have an overwhelming urge to centralize decision-making powers. One example is the United States. The mega-merger of various bodies into the new Department of Homeland Security is a move in the wrong direction and increases the vulnerability of these authorities. Any terrorist group able to attack this Department, for example by interfering with its electronic system, can inflict considerable damage. Moreover, as the response of the TSA to 9/11 with respect to passenger screening demonstrates, such overcentralization is also questionable on efficiency grounds (Poole, chapter 4 in this volume).

More constitutionally, the separation of powers switched in favor of the executive branch (Cole and Dempsey, 2002, p. 149). The ability of the public, the press and even Congress to gain access to information necessary in order to hold the executive accountable for their actions has been restricted (Chang, 2002, p. 124). But such reactions can also be observed in many other countries. According to a study of six countries – Canada, France, Germany, India, Israel and the United Kingdom – a common structural approach in the fight against terrorism is the centralization of decision-making (Perl, 2000).

Why does such a centralizing policy reaction occur, despite the fact that it may be counter-productive? Two reasons may be adduced. First, deterrence and a ‘strong central command’ visibly demonstrates politicians’ determination to fight terrorism. Second, government politicians and public bureaucrats exploit the special situation created by terrorist threats to extend their own competencies. It is, therefore, all the more important to safeguard political and economic decentralization at the constitutional level.

THE STRATEGY OF DIFFUSING MEDIA ATTENTION

In this section, another anti-terrorism policy based on reducing the marginal benefits of terrorism to terrorists is discussed. The policy aims at reducing the publicity terrorists can get from committing violent acts (Frey, 1988, 2004).

Symbiosis of Terrorism and the Media

Dramatic terrorist actions receive huge media coverage. The most impressive example is 9/11. The event completely dominated the American news for weeks and was relayed to billions of TV viewers worldwide.

Terrorists have become very skilled in using the media to achieve maximum publicity. Moreover, the media share a common interest with the terrorists: to make news and to ensure the longevity of the ‘story’. Journalists are pressed to enlarge upon incidents of potential interest to the viewers. This multiplies the effect of a particular terrorist act.

It is sometimes argued that publicity is secondary to Islamic terrorist organizations in general and al-Qaeda in particular, their main goal being the destruction of the infidel. However, we think there is plenty of evidence
to the contrary. The attacks of 9/11 were orchestrated to assure maximum media attention and al-Qaida often makes great efforts to claim responsibility for terrorist attacks, as the videotaped message of al-Qaida’s deputy leader in the aftermath of the London attacks exemplifies. Publicity is vital for fundraising and recruiting purposes. Beside the destruction of the intifda, another stated goal of al-Qaida is the formation of a caliphate in the Islamic world. Terrorism is in this context often seen as an exported civil war and a means to expand the support base in the Islamic world. Also in this context, the terrorists crucially depend on publicity. Finally, terrorist attacks are not primarily aimed at direct damage and destruction but rather at terrorizing the targeted society and at having far-reaching psychological repercussions beyond the immediate victim or target. Therefore, terrorism, including Islamic terrorism, essentially depends on publicity.

Reducing Media Attention

Terrorists can be prevented from committing violent acts if they benefit less from them. A specific way to ensure that terrorists derive lower benefits from terrorism consists of the government ascertaining that a particular terrorist act is not attributed to a particular terrorist group. This prevents terrorists receiving credit for the act, and thereby gaining full public attention for having committed it. The government must see to it that no particular terrorist group is able to monopolize media attention. Therefore, several scholars advocate media censorship, statutory regulations or voluntary self-restraint (Wilkinson, 2000). All information on who committed a particular terrorist act is then suppressed. But in an open and free society, it is impossible to withhold the type of information which the public is eager to know. Further, such intervention does not bind the foreign press and news media. Any news about the occurrence of a terrorist act and the likely perpetrators is therefore very likely to leak out. Terrorists seeking publicity can easily inform foreign news agencies. This first strategy must therefore be rejected as being ineffective and incompatible with democracy as the freedom of the press is seriously limited.

We propose an alternative way of diffusing media attention without infringing on the freedom of the press. Media attention can be dispersed by supplying more information to the public than would be wished by the perpetrators of a particular violent act. This can be done by making it known that several terrorist groups could be responsible for a particular terrorist act. The authorities have to reveal that they never know with absolute certainty which terrorist group may have committed a violent act. Even when it seems obvious which terrorist group is involved, the authorities can never be sure. They have to refrain from attributing a terrorist act with any degree of certainty to a particular group, as long as the truth of the matter has not been established. In a lawful country, based on the separation of power, this is the privilege of the courts, but not of the executive branch.

In the case of many spectacular terrorist events, no credible claims by the perpetrators have ever been made. Examples are the sarin nerve-gas attack in Tokyo (1995) or the bombing of the Federal Office Building in Oklahoma City (1995). Although the perpetrators were later identified and are known today, such knowledge did not exist when the events occurred. At that time, many different terrorist groups might have been credible aggressors. In many cases, however, several groups claim to have committed a particular terrorist act. For example, in the terrorist attack on the discothèque La Belle in Berlin in 1986, the Anti-American Arab Liberation Front, the RAF; and an offshoot of the RAF, the Holger Meins Commando, all claimed responsibility for the blast.

The government has to stress that any one of the groups claiming responsibility may be the one responsible. As a consequence, the media disperses public attention to many different, and possibly conflicting, political groups and goals. When only one group claims to have committed the terrorist act, the authorities responsible have to point out that such a claim is not necessarily substantiated.

The information strategy of refusing to attribute a terrorist attack to one particular group has systematic effects on the behavior of terrorists. The benefits derived from having committed a terrorist act decrease for the group having undertaken it. The group does not reap the public attention it hoped to get. This reduction in publicity makes the terrorist act (to a certain degree) pointless. The terrorists become frustrated and will either desist from further activities, or increasingly expose themselves to ordinary counter-terrorism methods by the police. The amount of terrorism will decrease; the dissatisfaction with existing political and social conditions will be expressed in different, less violent ways.

THE STRATEGY OF POSITIVE INCENTIVES

Positive sanctions can consist of providing people with previously non-existent or unattainable opportunities to increase their utility. Similarly, they consist of offering non-violent alternatives to address terrorists’ political goals. In economic terminology, the opportunity costs of being a terrorist are raised. In the following, we advance concrete anti-terrorist policies based on opening up alternatives, namely reintegrating terrorists and providing access to the political process, and welcoming repentants (see also Frey and Luechinger, 2003; Frey, 2004).
Two Forms of Positive Incentives

In the following, two specific policies for reintegrating potential and actual terrorists are discussed.

Reintegrating terrorists and access to the political process
One of the most fundamental of human motivations is the need to belong. This also applies to terrorists. In many cases, former relationships are completely severed when joining a terrorist group. The isolation from other social entities strengthens the terrorist group, because it has become the only place where the sense of belonging is nurtured.

An effective way of combating terrorism is to break up this isolation. Interaction between groups tends to reduce extremist views (Hardin, 2002). Stopping the vicious circle of segregation and extremism can be expected to lower terrorists' inclination to participate in violent activities. The terrorists need to experience that there are other social bodies able to give them a sense of belonging which, if that can be achieved, reduces the power of the terrorist leaders.

Further, terrorists can be granted access to the normal political process. This lowers the costs of pursuing the political goal by legal means and hence raises the opportunity costs of terrorism. There are various ways to motivate terrorists to interact more closely with other members of society and to pursue their political goals by legal means:

1. The terrorists, and in particular their supporters and sympathizers, can be involved in the institutionalized political process. As will be discussed later, this approach was effective in the case of the Northern Ireland conflict.

2. The terrorists can be involved in a discussion process, which takes their goals and grievances seriously and which tries to see whether compromises are feasible. There is strong evidence from experimental research in game theory that communication and personal contacts between players increases cooperation. A meta-analysis of hundreds of social-dilemma experiments concludes that 'the experimental evidence shows quite clearly that discussion has an extremely positive effect on subjects' willingness to cooperate' (Sally, 1995, p. 61).

Welcoming repentants
Persons engaged in terrorist movements can be offered incentives, most importantly reduced punishment and a secure future, if they are prepared to leave the organization they are involved with and are ready to talk about it and its objectives. The prospect of being supported raises a member's opportunity costs of remaining a terrorist. Such an approach has indeed been put into practice with great success. In Italy, a law introduced in 1982, the legge sui penitenti (law on repentents), left it up to the discretion of the courts to reduce sentences quite substantially, on condition that convicted terrorists provide tangible information leading to the arrest and conviction of fellow-terrorists. The implementation of this principal witness programme turned out to be an overwhelming success (Wilkinson, 2000). It provided the police with detailed information, which helped to crack open the Brigate Rosse cells and columns.

Application: The case of Northern Ireland

The strategy of offering positive incentives to terrorists to relinquish violence has been used with good results by the British and Irish government in the bloody Northern Ireland conflict. According to the article 'Mainstreaming Terrorists' in The Economist (2005, p. 14):

... offer such people [terrorists] a legitimate way to get what they care about most and they drop the most extreme aims, and give up terrorism too. It has more or less worked with Sinn Fein in Northern Ireland ...

This evaluation is buttressed by Neumann (2003) in his extensively documented and careful study of how the Republican Army and Sinn Fein were induced to engage in the peace process. His main conclusion is:

... it seems certain that the peace process of the 1990s will go down in history of the conflict as a profoundly significant event, not least because it was the first successful attempt to include representatives of paramilitary groups in a political settlement. In fact, compared to previous political initiatives, which had been exclusive in that only constitutional parties participated, the peace process of the 1990s appeared to set a precedent well beyond Northern Ireland in showing that the main insurgent group - the Republican movement, consisting of the Provisional Irish Republican Army (IRA) and its political front, Sinn Fein - could be persuaded to abandon its military campaign in exchange for nothing but a place at the negotiating table (Neumann, 2003, p. 154).

Indeed, one can even talk of a 'British tradition of inclusiveness' (Neumann, 2003, pp. 157-61). Many different British governments of both parties had a strong belief that 'men of violence' could be converted into 'men of peace', and that such conversion towards peaceful politics should be actively supported. It has been maintained that the British government even offered to help with public relations in case the Republicans decided to stand for election (O'Brien, 1999). The basic idea was that the British government was convinced that ongoing peace talks were an incentive that
attracted the Republicans into the political process, thus forcing them to take a decision in favor of abandoning their military activities.

Nobody can argue that the Northern Irish conflict has been settled and that total peace reigns. However, the scale of terrorist activities has greatly diminished, as can be seen from Figure 2.1. Guelke (2005, p. 6) observes that ‘despite the political deadlock, no breakdown of the peace occurred. Indeed, fatalities as a result of political violence fell to their lowest level since 1969 in 2004, when only four people died in political violence.’ In 2005, the IRA leadership declared an end to the armed conflict, and weapons decommissioning started.

It is interesting to note that after the IRA declared a ceasefire in 1997 new Republican dissident groups continued the armed conflict. But because they could not enjoy a significant urban support base (Tonge, 2004, p. 674), their effectiveness was rather small. This demonstrated that positive incentives, even if not able to influence the hard core of the terrorists, can still undermine their vigor by depriving them of the support of sympathizers and supporters.

Application: Relationship between Civil Liberties, Political Rights and Terrorism

If terrorists' and their supporters' inclination to participate in violent activities can be lowered by offering them non-violent alternatives to address their grievances, one should observe less terrorism in countries with extensive political rights and civil liberties. This stands in stark contrast to the widely held belief of a trade-off between civil liberties and security. As Cole and Dempsey (2002, p.178) observe ‘(t)he premise of this argument - so unquestioningly accepted that it often goes unstated - is that antiterrorism measures infringing civil liberties will work.’ However, Leone and Anrig (2003, p. ix) point out that ‘there has been a disturbing absence of information and debate about the genuine and imagined trade-offs between liberty and security’. A growing body of cross-country studies is providing evidence on the relationship between political rights, civil liberties and terrorism.

Most of the empirical research is based on two competing theoretical hypotheses. The first hypothesis is largely congruent with our hypothesis on the effectiveness of positive incentives: The granting of extensive political rights and civil liberties decreases terrorism by decreasing the price of non-violent legal activity and therefore increasing the price of terrorism (‘political access school’). The other hypothesis (‘strategic school’) posits the opposite: Freedom of speech, movement and association facilitate terrorism as they permit parochial interests to get organized and reduce the costs of conducting terrorist activities.
In a pioneering study, Eubank and Weinberg (1994) analyze the relationship between terrorism and democracy. They construct a dichotomous variable indicating whether a country hosts a known terrorist group or not. Calculating the odds-ratio, they conclude that regime type does discriminate in a meaningful way between countries with and without terrorist groups: the likelihood of terrorist groups occurring in democracies is three and a half times greater than their occurring in non-democracies. The main objections raised in response to their research (Hewitt, 1994; Miller, 1994; Sandler, 1995) are that their variables cannot capture the huge variation in the scale and intensity of terrorist campaigns, that they do not control for possibly confounding factors and that their results may be a statistical artifact or 'optical illusion' caused by the reporting bias. Rulers in autocratic regimes often deliberately bias their reporting to fake security and stability. The reporting bias may be especially severe in the case of directories that list only terrorist groups whose names are known, information that authoritarian governments can easily keep quiet. In two following articles, the authors address one of the critical points raised (Weinberg and Eubank, 1998; Eubank and Weinberg, 2001). Instead of the dichotomous variable on the presence of terrorist groups, they make use of event count data. The authors calculate the average number of terrorist incidents per country in a given type of regime. The idea is that, if the occurrence of terrorist events was unaffected by the type of government or the degree of freedom, the events should occur at the same rate across different categories. The results are depicted in Table 2.1. For the years 1994 and 1995, the highest number of terrorist incidents is reported for democracies or countries with the highest degree of political freedom. No clear pattern emerges for the other regime types. However, countries with an intermediate degree of political freedom seem to be the least terrorist-ridden. For the period 1980–87, Eubank and Weinberg (2001, p. 160) summarize their results as: 'the more democracy, the more terrorism'. However, this only holds if one looks at the absolute number of terrorist incidents per type of regime. If one weighs the number of incidents with the number of countries per regime type, incomplete or partial democracies experience the most terrorism.

It is questionable whether the short periods, especially the two single years, chosen by Weinberg and Eubank (1998) are representative for other years. Further, event count data are also plagued by the reporting bias. In an unpublished manuscript, we try to replicate the results for a longer period of time, 1980–2000, and with data on fatal incidents only (Luechinger, 2002). This analysis rests on the premise that the reporting bias is less severe for fatal incidents than for non-fatal incidents. As can be seen from Table 2.1, only the result for 1994 can be replicated. In 1995, we find the highest number

| Regime type | Average number of incidents per country | Average number of incidents per country (
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<tbody>
<tr>
<td>Democracy</td>
<td>3.06</td>
<td>1.14</td>
</tr>
<tr>
<td>Insecure democracy</td>
<td>1.48</td>
<td>0.52</td>
</tr>
<tr>
<td>Partial democracy</td>
<td>2.56</td>
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<tr>
<td>Limited authoritarianism</td>
<td>0.96</td>
<td>0.32</td>
</tr>
<tr>
<td>Absolutism</td>
<td>2.19</td>
<td>0.08</td>
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<tr>
<td>Number of countries</td>
<td>167</td>
<td>161</td>
</tr>
<tr>
<td>Chi^2-test</td>
<td>p&lt;0.01</td>
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<tr>
<th>Political freedom</th>
<th>Average number of incidents per country</th>
<th>Average number of fatal incidents per country and year</th>
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<tr>
<td>Free</td>
<td>2.13</td>
<td>0.55</td>
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<tr>
<td>Partly free</td>
<td>1.19</td>
<td>0.30</td>
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<tr>
<td>Not free</td>
<td>1.91</td>
<td>0.36</td>
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<tr>
<td>Number of countries</td>
<td>173</td>
<td>173</td>
</tr>
<tr>
<td>Chi^2-test</td>
<td>p&lt;0.1</td>
<td>p&lt;0.01</td>
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Notes: a If the occurrence of terrorist events is unaffected by the degree of freedom, the events should occur at the same rate across the different categories; the results are tested against the null of a uniform distribution with a Chi^2 goodness-of-fit test. b 1.16 in Table 2 of Weinberg and Eubank (1998). The value of the test statistic reported in Weinberg and Eubank (1998) cannot be replicated. The percentages of terrorist events that occur in the different categories of regime type do not sum to 100 percent. However, qualitatively we get the same result. c 0.69 in Table 3b of Weinberg and Eubank (1998). d Eubank and Weinberg (2001) do not report these results; calculations are based on information provided in the text and Table 1. i Weinberg and Eubank (1998), Tables 1–3; Eubank and Weinberg (2001), Table 1; Luechinger (2002).

Original data source: 2 Wason (1987); 3 Freedom House (various years); 4 Rand-St Andrews Chronology of International Terrorism for 1994 provided by Hoffmann and Hoffmann (1985); 5 Pattern of Global Terrorism for 1995 of the US Department of State (various years); 6 ITERATE (see for example Mickolus et al., 1989); 7 Terror Attack Database of the International Policy Institute for Counter-Terrorism (2002).
of fatal incidents in countries with an intermediate degree of political freedom. This pattern is even more pronounced for the whole period. This result is compatible with the finding of Eubank and Weinberg (2001) that partial democracies experience the highest number of incidents per country in the period 1980–87. Therefore, both analyses spanning a longer period of time find evidence of an inverted U-shaped relationship between political freedom and terrorism.

To address the problem of confounding factors, several authors use regression analyses. Most of them, however, are conceptually or methodologically flawed (Eyerman, 1998; Testas, 2004; Li, 2005); an exception is Abadie (2004) discussed below. All studies discussed so far rely on measures of international terrorism. This is problematic insofar as international terrorism is only a small fraction of overall terrorist activities. Moreover, most studies are likely to be plagued by the reporting bias. As an alternative measure, Abadie (2004) uses country-level ratings on terrorist risk from an international risk agency that are used by international investors to evaluate specific types of country risk. This measure captures the intensity of terrorist campaigns, it captures both domestic and international terrorism, and is less susceptible to the reporting bias. In OLS regressions, freedom is shown to explain terrorism in a non-monotonic way. As depicted in Figure 2.2, countries with an intermediate degree of political rights are more prone to terrorism than countries with high levels of political freedom or countries with highly authoritarian regimes. The result is robust to variations in the specification and still holds if GDP per capita is instrumented by geographical variables.

The majority of results points to an inverted U-shaped relationship between political freedom and democracy. This is evidence for countervailing effects as posited in the literature. For a more direct test of the two theoretical effects, more differentiated analyses and analyses based on micro-data instead of macro-data are needed:

1. Direct costs mainly determine in which countries attacks take place, whereas opportunity costs determine from which countries terrorists originate. Differentiating between origin and target countries may, therefore, help to disentangle the two effects.

2. Different electoral systems may affect the inclusiveness of the political system and therewith the opportunity costs of violence for minority groups, without affecting the direct cost of violence. In particular, proportional systems are said to be more inclusive than majoritarian systems. Differences in the electoral system allow for analysis of the effect of increasing the opportunity costs, independent of the effect of the direct costs.

Figure 2.2  Non-monotonic relationship between terrorism and political rights

Source: Abadie (2004), Figure 1d, Table 3.

3. A lack of opportunities for pursuing political aims by legal means may to a large extent influence preferences for revolutionary actions, whereas execution of revolutionary actions depends on both preferences and costs. Micro-data on individuals’ revolutionary preferences can therefore provide further evidence.

Instead of attributing attacks to a country on the basis of where it took place, Eubank and Weinberg (2001) and Krueger and Laitin (2003) assign the attacks to countries based on the perpetrators’ citizenship and the victims’ citizenship. Eubank and Weinberg (2001) report the total number of incidents per regime type and the number of countries per type of regime. This allows for the calculation of the average number of attacks perpetrated by, or targeted against, citizens of a country for the different types of regime. Krueger and Laitin (2003) calculate the average number of incidents per person in either the origin or target country according to three
degrees of civil liberties and political rights. The average number of attacks assigned based on perpetrators’ citizenship, is directly related to our hypothesis that offering access to the legal political process lowers the incentives to undertake terrorist attacks. For the sake of completeness, all results are shown in Table 2.2. The results based on Eubank and Weinberg (2001) provide mixed evidence for the positive incentive hypothesis. Weighted by the number of countries per type of regime, most incidents are perpetrated by terrorists originating from partial democracies. However, the results of Krueger and Laitin (2003) strongly support the positive incentive hypothesis: Countries with a lower level of civil liberties or political rights have, on average, a higher participation rate in terrorism.

Further evidence for the pacifying effect of inclusiveness is provided by Li’s (2005) analysis of the effect of different electoral systems on terrorism. He finds that proportional systems, commonly considered more inclusive than others, are less prone to terrorism than either mixed or majoritarian systems.

Finally, there is also evidence for the positive incentive hypothesis from micro-data. MacCulloch and Pezzini (2002) analyze the determinants of revolutionary preferences of respondents in three surveys conducted over three time periods between 1981 and 1997, containing the answers of 130,000 people living in 61 countries. Revolutionary preferences are elicited by agreement or disagreement to the following statement: “The entire way our society is organized must be radically changed by revolutionary action.” The effect of political freedom on support of revolutionary actions is analyzed with a probit regression controlling for individual characteristics, macroeconomic variables, country and time fixed-effects. The coefficient on Freedom House’s composite index of political freedom is negative and significant. An individual living in a country that loses one degree of freedom on the three-point scale experiences an increase in their probability of supporting a revolt by 3 to 4 percentage points, depending on the specification. Similarly, civil liberties and political rights both have negative and significant effects on revolutionary tastes. Hence, denial of civil liberties and political freedom increases the propensity to undertake terrorist acts. This is shown by individuals’ behavior (Krueger and Laitin, 2003) and stated preferences (MacCulloch and Pezzini, 2002).

### What Lessons Can be Learned from this Literature Overview for the Actual Fight against Terrorism?

First, and most important, the empirical literature indicates that positive incentives work. In contrast to conventional wisdom, there is no trade-off between liberty and security. The empirical results strongly support the

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<th>Table 2.2 Political freedom and terrorism; perpetrators and victims</th>
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<td>Regime type</td>
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<tr>
<td>Democratic</td>
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<td>Insecure democracy</td>
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<td>Partial democracy</td>
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<td>Limited authoritarian</td>
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<td>Absolutism</td>
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<td>Krueger and Laitin (2003)3</td>
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<tr>
<th>Civil liberties</th>
<th>Average number of incidents per person (in either origin or target country)</th>
<th>Number of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>0.02 0.12</td>
<td>159</td>
</tr>
<tr>
<td>Medium</td>
<td>0.27 0.38</td>
<td>1997–2002</td>
</tr>
<tr>
<td>Low</td>
<td>0.42 0.19</td>
<td>Chi²-test; originb p &lt; 0.01</td>
</tr>
<tr>
<td>Political rights</td>
<td>Average number of incidents per countryb</td>
<td>Number of countries</td>
</tr>
<tr>
<td>High</td>
<td>0.13 0.38</td>
<td>Chi²-test; originb p &lt; 0.01</td>
</tr>
<tr>
<td>Medium</td>
<td>0.30 0.14</td>
<td>Chi²-test; targetb p &lt; 0.01</td>
</tr>
<tr>
<td>Low</td>
<td>0.39 0.12</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** a Eubank and Weinberg (2001) do not report these results; calculations are based on information provided in Table 2. From Table 2, it is not entirely clear which numbers are related to the origins and which to the targets of an attack. b If the occurrence of terrorist events is unaffected by the degree of freedom, the events should occur at the same rate across the different categories; the results are tested against the null of a uniform distribution with a Chi² goodness-of-fit test. 3 Krueger and Laitin (2003) compute each test by estimating a separate negative binomial regression, with log population as an additional control variable, constraining the coefficient on log population to equal one.

**Source:** 1 Eubank and Weinberg (2001), Table 2; 2 Krueger and Laitin (2003), Table 5.

**Original data sources:** 2 Wesson (1987); 3 Freedom House (various years); 4 ITERATE (see for example Mickolus et al., 1989); 5 Patterns of Global Terrorism of the US Department of State (various years).
effectiveness of providing positive incentives and granting terrorists access to the normal political process to pursue their goals. Second, the empirical literature gives a rough idea about the size of the negative consequences of a badly chosen anti-terrorism policy and the area where it might be counter-productive. For example, if one takes the results of Abadie (2004) at face value, in countries such as the USA or most Western European countries with the highest degree of political freedom (that is, a value of 1 in Figure 2), infringing upon these freedoms backfires. Restricting political freedoms is counter-productive for all countries having less political rights than countries such as Bahrain, Morocco, Russia or Singapore. But even highly authoritarian countries such as Burma, China, Cuba, North Korea, Libya, Saudi Arabia or Turkmenistan have, on average, a higher risk of terrorism than the USA or Western European countries. Infringing civil liberties selectively, that is, for minorities, may also be counter-productive. MacCulloch and Pezzini (2002) find that people from a Christian or Muslim minority react more strongly to the denial of freedom than if they were part of the majority, with Muslims reacting twice as strongly as Christians to the denial of rights.

CONCLUDING REMARKS

Politics, as well as rational choice analysis, have always been committed to fighting terrorism by deterrence. We argue that the application of the rational choice approach offers a wider range of anti-terrorism policies. A first alternative to deterrence is to reduce terrorist attacks by making them less attractive to terrorists. This can be done by immunizing targets through decentralization, or by diffusing media attention once an attack has taken place. Another strategy is to raise the opportunity cost to terrorists. Specifically, we suggest reintegrating terrorists and providing access to the political process, welcoming repentants and offering valued opportunities. The strategy of offering positive incentives to terrorists to relinquish violence has been used with good results by the British and Irish governments in the bloody Northern Ireland conflict. Further evidence on the effectiveness of this approach comes from cross-country studies on the relationship between civil liberties, political rights and terrorism. Terrorists often originate from countries with regimes that suppress the political rights and civil liberties of their citizens. Moreover, countries with an intermediate level of political rights and civil liberties face the highest terrorism risk.

The three policies against terrorism outlined in this chapter support the view that "there is no contradiction between a robust application of constitutional rights and an effective counterterrorism strategy" (Cole and Dempsey, 2002, p. 15). On the contrary, extensive separation of powers is the cornerstone of the constitution in all democratic countries, a federalistic structure in many. Publicity for terrorists can be reduced without infringing on the freedom of the press, but by the rigid application of the principle that someone is considered innocent until proven guilty. Finally, no trade-off exists between civil liberty (and political rights) and security.

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