

Strategies to Deal with Terrorism

Bruno S. Frey* and Margit Osterloh†

*University of Basel, Basel, Switzerland, CREMA – Center for Research in Economics, Management and the Arts, Zürich, Switzerland. e-mail: bruno.frey@bsfrey.ch and †University of Basel, Basel, Switzerland, CREMA – Center for Research in Economics, Management and the Arts, Zürich, Switzerland. e-mail: margit.osterloh@business.uzh.ch

Abstract

Much of the research on terrorism has been devoted to analyzing and understanding the concept and consequences of terrorism, as well as the behavior of terrorists. In contrast, this article develops five new and concrete proposals for effective strategies against terrorism: (i) strengthening decentralization; (ii) encouraging fighters to leave the terrorist camp; (iii) reducing the incentives to enter terrorist groups; (iv) negotiating with terrorist groups; and (v) reducing media attention. The advantages and disadvantages of these strategies for curbing terrorism are discussed. They certainly are no panacea to solve terrorist threats. However, they are proposed, as possible ways to overcome the commonly propagated ‘war against terrorism’ proved to be of little effect, or even to be counterproductive. (JEL codes: D74, H56, K42).

Key words: terrorism, decentralization, negotiation, media, incentives

1. The Threat of Terrorism

Terrorism is seen as a major threat against our liberal-democratic values and societies. Almost daily we are confronted with news about acts of terrorism in which innocent and uninvolved persons are murdered.

According to the Global Terrorism Data collected by the National Consortium for the Study of Terrorism and Responses to Terrorism (START 2017) terrorist activities have strongly increased over the last decades. The development of the number of incidents, deaths, and injuries is shown graphically in [Figure 1](#) for the period 2000 to 2016. Since the beginning of this century, all three indicators of terrorism have strongly increased. This applies in particular to the number of persons killed and injured. Over the most recent years it has grown to around 40,000, while around 15,000 incidents have been recorded in 2000.

In a global perspective, suicide attacks are still rather exceptional but have recently increased. [Table 1](#) presents data on suicide attacks over the period 2000–2016. At the turn of the century, there were less than 30 suicide attacks but they have now increased to almost 400 which is 14 times higher. There are about 20 times more dead and wounded persons than 17 years ago. The number of deaths and wounded per attack have also clearly increased, showing that each suicide terrorist has produced greater damage.

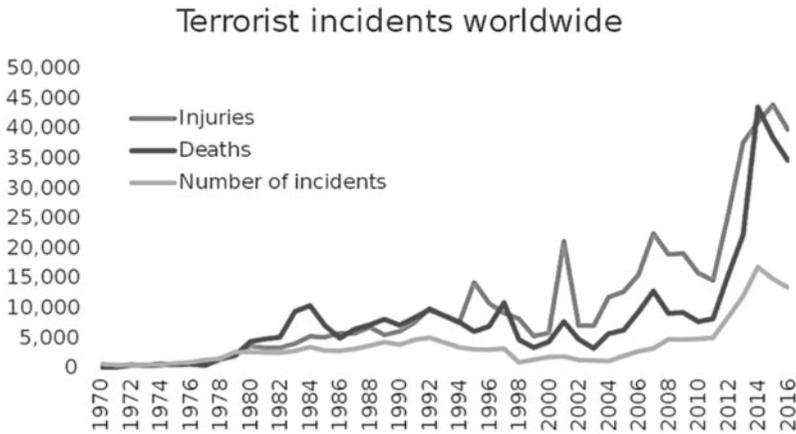


Figure 1. Terrorist incidents worldwide, 1970–2016.

Source: Phoenix 7777, Wikimedia Commons, own work.

National Consortium for the Study of Terrorism and Responses to Terrorism. (2017). Global Terrorism Database (globalterrorismdb_0617dist.xlsx). Retrieved from <https://www.start.umd.edu/gtd> University of Maryland.

National Consortium for the Study of Terrorism and Responses to Terrorism. (2017). Global Terrorism Database (gtd1993_0617dist.xlsx). Retrieved from <https://www.start.umd.edu/gtd> University of Maryland.

Table 1. Suicide attacks, 2000–2016

	2000	2016	Increase
Total attacks	28	392	14 times
Total deaths	208	4611	22 times
Total wounded	502	9085	18 times
Average deaths per attack	7.4	11.8	
Average wounded per attack	17.9	23.2	

Own calculations by author. Source: Chicago Project on Security and Threats, University of Chicago; <http://post.uchicago.edu> (9 August 2017).

Suicide attacks are a particularly interesting topic for the media and might therefore be overestimated by the public. The 4600 deaths due to suicide attacks are relatively small (12%) compared to the roughly 40,000 persons who died overall in terrorist incidents in 2016.

At the beginning of this century, terrorist activities were mainly targeted at secession of parts of nations, such as the Basque region from Spain, and the region claimed by the Tamil Tigers in Sri Lanka. This has changed; at present many terrorist incidents are attributed to religious goals. Governments have always responded by engaging in a war on terrorism using force: in return to the attacks, terrorists are killed or thrown into prison (Schmid and Crelinsten 1993, Wilkinson 2000). An all-encompassing electronic surveillance system is established to deter terrorists and to prevent future terrorist attacks.

The ‘war on terrorism’ has, however, been found to be ineffective or even counterproductive. This has been the conclusion of an extensive literature on terrorism in several disciplines (Pape 1996; Stern 1999; Henderson 2001; Carr 2002; Chang 2002; Cronin 2009), in particular economics (Harmon 2000; Konrad 2002; Frey and Luechinger 2003; Frey 2004; Hoffman 2006; Llussa and Tavares 2008; Richardson et al. 2007; Brueck 2007; Schneider et al. 2015; Intriligator 2010; Napoleoni 2010, 2014; Enders and Sandler 2012; Sandler 2015a,b). Despite huge efforts and expenditures terrorism does not subside but has rather dramatically increased as the attacks in New York (2001), Madrid (2004), London (2005), Boston (2013), Paris (2015), Brussels, Nice, Berlin (2016), again London, Stockholm and Barcelona (2017) document.¹

It is therefore essential to consider alternative policies. Using counter-force cannot reduce terrorism. A ‘war against terrorism’ is neither productive nor clever. Rather, and perhaps against one’s first intuition, strategies must be sought which to a large extent abstain from using force. Such an approach is not only more effective but also strengthens the rule of law, liberal democracy, and market. We therewith oppose terrorism with liberal values, which is a field where terrorists are powerless.

Persons react systematically to incentives. This also applies to terrorists (Rohner and Frey 2007). The decision of whether to work with positive or negative incentives strongly influences the interaction between terrorists and public authorities. When the government uses positive instead of negative incentives it is more likely that terrorists respond by using less force. This principle of mutual reciprocity is well known in sociology (Diekmann et al. 2008) and has been supported in laboratory evidence under economic conditions (Bohnet and Frey 1999).²

Reciprocity is, however, not an automatic reaction. It might be that rewards offered by the government are interpreted as a sign of weakness leading to more terrorist attacks. Moreover, rewards offered in the future may act as an inducement to now engage in terrorism to later get the reward for renouncing terrorism. Mistaken interpretation may also happen in the case of negative sanctions. They might also be interpreted as signs of weakness leading to more terrorism. It must be carefully considered which form of reward is used. If terrorists are to be induced to renounce violence, the focus should be on non-monetary incentives.

This article develops five new and concrete proposals of effective strategies against terrorism: (i) strengthening decentralization; (ii) encouraging fighters to leave the terrorist camp; (iii) reducing the incentives to enter terrorist groups; (iv) negotiating with terrorist groups; and (VI) reducing media attention.

2. Strengthening Decentralization

In September 2001 a man shot dead three of the seven members of the government, the president, and 10 more members of the cantonal government of the canton of Zug. Such an

1 These terrorist attacks cost the lives of many persons (especially the attack on the World Trade Towers with 3000 and the shooting in Paris with 137 victims). Compared to wars and civil strife these numbers are not large. However, the population is nevertheless extremely concerned and in fear of terrorism. See the discussion in Sunstein 2005 and Braithwaite 2013.

2 The conditions under which positive incentives work, or do not work, have been analyzed by Gneezy et al. 2011.

attack has never ever occurred before in Switzerland. Nevertheless, after a short time, within half an hour, the government functioned again; the government of the City of Zug took over.

A similar event in Armenia, a centralized country, produced huge political chaos. In October 1999 five suicide terrorists attacked the Armenian parliament and killed the prime minister, the president of the parliament, and seven other members of the government. The defense minister of Armenia admitted that the resulting situation produced great uncertainty and that the internal and external security of the country was at high risk. Moreover, the attacks resulted in a power vacuum: there were no persons on a lower level of government who could have substituted for the persons murdered.

These events show us: a society with many different centers is less endangered by terrorist attacks than are centrally organized societies (Collier and Hoeffler 2004; Frey and Luechinger 2004).³ If one part becomes an object of a terrorist attack, other parts can take over its functions and society works again. The more independent centers there are, the less terrorists know which of them to attack. The terrorists' goal—namely to destroy our societies—is not reached.

In contrast, a highly centralized society is likely to be incapacitated by a terrorist attack. As all decisions are taken at one location and often by one person, such an arrangement provides a suitable goal for terrorists. Any attack causes large costs, and attracts much media attention, and this is exactly what terrorists want.

The decentralization here proposed should extend to three important areas:

- **Politics.** This entails the classical division of labor between the parliament, the executive branch, and the legislative branch. Moreover, political decisions should be distributed among the various levels of government, that is, the federal state, provinces, regions, cities, and communes.
- **Economy.** The market is based on a large number of independently acting suppliers and demanders of goods and services. This feature makes market economies much better protected against terrorist attacks than are centralized planned economies.
- **Civil Society.** It consists of many different groups such as churches, clubs, foundations, and other nongovernmental institutions. They form a decentralized net supporting each other.

An even more effective antidote against terrorist attacks is a combined decentralization in both political and territorial dimensions. A study for the World Bank (Collier and Hoeffler 2004) analyzes 161 countries over the period 1960–1999. It reveals that decentralization reduces internal violence. On the basis of 78 civil wars it could be shown that ethnically diversified and decentralized countries have a much lower risk of being subject to war-like internal conflicts than are more homogenous societies. Granting more independence to lower-level governmental units has the same effect. An impressive example is South Tyrol, which in the 1970s was subject to terrorist incidents. This was stopped when the Italian Senate gave extensive independence to the lower units. The same result occurred in Puerto Rico when the USA granted the country more independence. Such a combination of

3 Montalvo and Reynal-Querol 2005 find that ethnic polarization is a significant variable in the explanation of the incidence of civil wars.

political and territorial decentralization constitutes the basic idea of Functional Overlapping Competing Jurisdictions (Frey and Eichenberger 1999).

Beyond the economy and polity a polycentric society consisting of many different groups and organizations is also an important institution curbing terrorism.

The major contribution of decentralization is that it mitigates the effects of terrorist attacks. It does not directly reduce the extent of terrorism. However, as terrorist groups must be assumed to be on the whole rational actors, the reduced effects induce them to attack different objects, in particular strongly centralized economies, polities, and civil societies where a terrorist attack can be expected to have a greater effect.

3. Encouraging Fighters to Leave the Terrorist Camp

Being a terrorist is extremely hazardous, and the corresponding life is often miserable. Pleasures such as football, pop concerts, discos, free use of internet, and sometimes even having a cell phone are forbidden. At the same time the leaders of terrorist groups isolate and discipline their fighters. For example, the (so-called) 'Islamic State' (IS) cuts off a hand for stealing, imposes the death sentence for blasphemy and homosexuality, and crucifies for robbery. Many terrorists may well ponder whether they want to spend all their life in such an environment or whether they wish to return to a humane society.

Terrorist groups are weakened when their members consider abandoning them. This possibility undermines the power of its leaders, diminishes the size and spirit of the group, and invites others to follow the example. The following features help to leave a terrorist group:

- Make reintegration more attractive. Terrorists can be liberated from their isolation when contacts are established with the goal of helping them to support doubts concerning their biased worldview (Chalk 1995). Already today more than half of all former Jihad fighters come back home disillusioned. Demonstrating the joy of sports, music and entertainment, learning, social relationships, internet, as well as other amenities of the Western world strengthens this disillusion with terrorism. Helping to reintegrate into this more agreeable world should be the focus rather than threatening the 'hard hand of the state' when returning.
- Actively supporting reintegration. Throwing returnees into prison generally leads to even stronger radicalization as alternatives are blocked. De-radicalization and re-socialization are arduous and slow to achieve but are more effective than hard punishment. The same strategy should be applied to countries harboring terrorists. They should also be helped to find their way back to the international community.
- Persons involved in terrorist activities are more likely to leave the camp and to provide valuable information when they in return are offered a reduction in punishment and a secure future life. Generally, Key witness programs have proved to be most effective under many circumstances (Taylor and Quayle 1994; Wilkinson 2000). They have also been used to counter terrorism. Examples are the Rote Armee Fraktion in Germany and the Brigade Rosse in Italy. In 1982, the Italian government introduced a law allowing substantial reductions in punishment in case an ex-terrorist offers information leading to the

capture of other terrorists. At the same time, former terrorists could be re-integrated into normal civil life.

The 'new' anti-terror policy here proposed is based on positive incentives inducing terrorists to leave their camp. This strategy has important advantages but also some disadvantages to be taken into account (Drezner 1999):

- For fanatic terrorists the positive incentives offered may not be attractive enough. Positive incentives often do not reach the core of a terror organization but are relevant for its environment. Such pro-terrorist environment is, however, crucial for the success of terrorism. The decision of the Rote Armee Fraktion in Germany to end its activities was mainly due to the fact that its environment dwindled, making terrorist attacks more difficult or even impossible.
- The leaders of terrorist groups can develop a counterstrategy. They can offer higher positive incentives and at the same time can threaten stricter punishment. They can even subvert key witness programs by sending members of the group to mislead the police. But such counterstrategy is not easy to undertake and involves considerable risks for terrorists.
- The positive incentive might produce wrong incentives. When persons see the possibility of getting a reward when leaving a terrorist group, it may induce them to enter such a group. This argument has sometimes been used with respect to anti-drug policy but empirical data provide little evidence that this argument is important.
- The new strategy is sometimes considered to be immoral and therefore is rejected. According to this view, terrorists are criminals and should never be rewarded by government. But it can be argued that society that way is spared high costs. Moreover, in many cases terrorists therewith are successfully re-integrated into society. Some of them attained high government posts and received high awards (Frey and Luechinger 2003). For example, Menachem Begin was a leader of the terrorist Irgun Zvai Leumi group and later became prime minister and even received the Nobel Prize for Peace.

The 'new' anti-terror policy here proposed has major advantages countering the possible disadvantages:

- The interaction between the terrorists and the government turns into a positive sum game. All actors can profit. In contrast, conventional anti-terror policy produces mainly losers on both sides. Terrorists are killed or thrown into prisons for years, and society is burdened by high costs for the security forces and by the still existing terrorist threats. This deadly circle is broken by an anti-terror strategy based on positive incentives.
- The strategy undermines the cohesion of terrorist organizations. Their leaders are no longer certain whom they can trust. As a reaction they will prohibit any contacts with people outside the group, leading to conflicts between the bosses and the basis. The leaders lose part of their control, weakening the terrorist group.

When comparing advantages against disadvantages it may well be argued that anti-terror strategy based mainly on positive incentives is likely to be more productive and effective than deterrence policy.

4. Reducing the Incentives to Enter Terrorist Groups

Education and satisfactory job prospects reduce potential terrorism. This applies in particular to the problematic precincts of large Western cities such as in Paris or Brussels, as well as to poor countries. While these measures are important they will not be further discussed in this article because there exists an extensive literature on this strategy in the social sciences (see the literature in section 1).

It is, however, naïve to think that it suffices to raise the income level of a country to reduce the extent of terrorism. After all, there were terrorists in relatively wealthy countries such as Germany, Italy, Spain and France. This conclusion is based on careful empirical evidence (see in particular [Krueger 2007](#) and [Hoffman 2006](#)) showing that terrorists tend to have a better education and higher incomes than the relevant other population. However, the evidence relates mostly to terrorists engaged in the Israeli–Palestinian conflict.

5. Negotiating with Terrorist Groups

Most governments do not wish to negotiate with terrorists because they consider them to be criminals with which a state bound by the rule of law should not bargain about their illegal acts. However, such refusal is rarely successful. Binding terrorist groups via negotiations has many advantages. Indeed, a great many terrorist movements have subsided when the government started serious negotiations with the terrorists. In some cases terrorist organizations could be induced to observe international law and its leaders could be integrated into the legitimate political process. Examples are the Basque Euskadi Ta Askatasuna (ETA), the Irish Republican Army (IRA), and the Columbian Fuerzas Armadas Revolucionarias de Colombia (FARC).

There are also counter examples. For example, the rebellion of the Tamil Tigers in Sri Lanka was crushed by a brutal military intervention.⁴

Democratic governments should even take up negotiations with the so-called ‘Islamic State’. This does not mean at all that the goals and methods of IS are accepted. In contrast to many other terrorist movements the IS claims its own territory ([Napoleoni 2010, 2014](#)) as do the Taliban in Afghanistan. Until recently, the IS occupied a considerable stretch of territory and employed government structures for social security, road building, and courts. The fact that IS considers itself a state may, according to Napoleoni, be exploited to induce it to obey international law. Such a strategy is certainly difficult and requires excellent diplomats.

A strategy of negotiation has three major advantages:

- An effort is made to identify common interests. It may well be possible to find agreement in more areas than expected at first sight. If such areas are found, negotiations are beneficial for both sides.
- Participating in negotiations is often highly disputed on the terrorist side. Terrorists are not homogenous but there exist divergent units often fighting against each other. An example is the relationship of IS to Al-Qaeda. Skilled negotiators can exploit such differences. A government wanting to start negotiations can never be certain whether it is talking to the decisive leaders of a

4 Based on a large number of case studies [Cronin \(2009\)](#) provides an extensive discussion of how and when negotiations work and do not work.

terrorist organization, or whether the contacts are just bluffing. If they proceed with the latter, the true terrorists feel offended and will block the negotiations.

- Democratic states have a comparative advantage in negotiations. They are built on openness, discourse, and trust. They are experienced in exploiting them to raise wealth. In contrast, terrorist organizations are built on secrecy, authoritarian commands, and brute violence. Therefore, democratic states are superior with respect to negotiations. A prominent case in which negotiations proved to be to the advantage of the democratic side was the effort of Chancellor Willy Brandt and of his delegate Egon Bahr to find, and emphasize, common interests to break up the long-existing confrontation between the Federal Republic of Germany and the German Democratic Republic. The Communists in the GDR could not cope with such an opening, and in 1989 the state broke down.

To negotiate with terrorists is a daunting task (Atkinson et al. 1987; Lapan and Sandler 1988; Kydd and Walter 2002; Bueno de Mesquita 2005a). Both sides must act under considerable uncertainty. In particular, it is often unclear what goals the terrorists want to achieve; they may often deviate from the goals publicly declared. Terrorist organizations may use negotiations for purely strategic reasons. The extent to which terrorists are prepared to use violence is also often unclear. Terrorists claim, of course, that they go to the extremes if their demands are not met. However, the extent to which they can put these threats into practice depends on their often hidden personal and material resources. Experienced and skilled persons must undertake the negotiations on our side. Intermediators such as church leaders, peace activists, international organizations, and foreign governments indirectly supporting the terrorists can establish initial contacts. Another group of intermediators are persons who already now enable governments to free hostages against a ransom.

A major problem in such negotiations is to put possible contracts into effect. In many cases, only moderate members of a terrorist group will be prepared to enter negotiations. The crucial question then is whether more militant members will observe the agreements. They may well engage in further terrorist acts to undermine the contract (Kydd and Walter 2002). The question remains in what way governments and terrorist can put the commitments into effect (Bueno de Mesquita 2005a,b; Bapat 2006). Each side has a short-run incentive to break the accord to reap transitory benefits. Both sides find it difficult to provide credible commitments, as the situation in which they both act is anarchic, that is, there is no power that can enforce the contract. This problem can partly be solved by various means:

- Governments and terrorist organizations can voluntarily offer observable information concerning their future actions. The terrorists can, for example, invite journalists known for their objective stance to monitor their behavior. The government can invite persons trusted by terrorists to monitor the behavior of the police, secret service, and military.
- Both sides of the contract must try to differentiate between trustworthy and untrustworthy actors. The government can bolster its trustworthiness by publicizing the agreements made with the terrorists. If it breaks these commitments it loses credibility inside and outside of the country. However, the government can always claim that the conditions have changed and that therefore the contract no longer holds. The same applies to the terrorist side especially as in most cases a loss of credibility in the public hurts terrorists less.

- The government can transfer the rewards negotiated with the terrorist group to a neutral organization. The rewards are only handed out if the terrorists fulfill their part of the agreement. Similarly, the terrorist group can dispose their arms to such an organization where they remain as long as the government meets its obligations. Otherwise the terrorists are given back their arms. The peace process in Northern Ireland provides an example to this procedure.
- The government and the terrorist group can raise their trustworthiness by involving an international organization considered to be neutral by both sides of the accord.
- Various independent areas can be joined together (Tollison and Willet 1979). This approach may work if the two sides perceive different benefits and costs in some areas. Joining issues may help to induce the two sides to keep to the commitments.

The basic idea of a contract between anti-terrorist governments and terrorist groups at first sight seems naïve or even ridiculous. It should, however, be considered a viable alternative to just engage in a 'war against terrorism'. Past experience shows that there have been many implicit and explicit agreements between governments and terrorists despite the fact that negotiations and surveillance of the agreements are extremely difficult.

6. Reducing Media Attention

Terrorists have one major goal: the largest possible attention in the press, radio, television, and internet. They on purpose use the media to propagate fear among millions of persons. Terrorist attacks are carefully orchestrated to reach the maximum possible attention in the media (Laqueur 1977; O'Sullivan 1986; Nacos 1994, 2002, 2016; Rohner and Frey 2007; Boydston et al. 2014; Beckmann et al. 2017):

- The more violent and brutal terrorists proceed, and the larger the number of victims, the greater is media interest. In particular, the IS is committed to this strategy and acts fully according to the principles of the digitalized world. The IS even puts decapitation and hostages burning to death on video and therewith reaches the whole world via internet in a matter of seconds.
- Terrorist attacks are most attractive in cities, in particular capital cities, as terrorists can count on the presence of many reporters and TV networks. In contrast, killing dozens of persons in a remote village is scarcely reported in the news. The same act attracts huge media attention when undertaken in a prominent city. This is the reason why terrorists all over the world have moved terrorist attacks from rural to city areas.
- Attractive goals are also tourist destinations as terrorist attacks have happened several times in Egypt, Tunisia, Paris, London and Barcelona. Many media consumers know such areas from their own experience or from that of friends and acquaintances. In the case of foreign victims, media attention is even more certain.
- Abductions of citizens from countries with large TV nets, such as those existing in the USA, Britain, France or Germany, are attractive to terrorists because the media response will be large.

Terrorists moreover exploit the media by getting information on planned actions by governments and its security services, allowing them to adjust their tactics.

The media are much interested in producing sensational and spectacular reports on terrorist acts securing the public's attention (Wilkinson 2000). Reality TV becomes increasingly popular. As the media invest much time and resources in reporting on a particular 'story', they have an interest in keeping it alive and to dramatize it. There is a symbiotic interest between terrorists and the media (for empirical evidence see Rohner and Frey 2007; Walsh 2010; Pfeiffer 2012). As a result, the terrorist threat is magnified playing in the hands of the terrorist.

After a terrorist incident, the media eagerly await that a particular terrorist group takes 'responsibility' for the act. Terror therewith becomes part of entertainment. In this regard, terrorists and the media have the same interest; they work symbiotically together.

In a careful study Jetter (2017) demonstrates that Al-Qaeda coverage on American networks (CNN, NBC, CBS, Fox News) has actively encouraged Al-Qaeda attacks in later weeks. According to his study 1 min of Al-Qaeda coverage in a 30-min news segment leads to approximately one attack in the forthcoming week, which is equivalent to about five casualties on average. He is also able to show that the effect is not solely changing the timing of attacks but raising the overall number of Al-Qaeda attacks.

Reports on terrorist incidents cannot be suppressed. Forbidding them would undermine the fundamental value of the freedom of the media that in democracies is neither possible nor desirable. On the other hand it would be important to prevent terrorists profiting from publicity and to gain prominence as they do today. This goal can be achieved by not prematurely attributing a terrorist act to a particular terrorist group. In fact, often it is unclear who committed a particular terrorist act. Sometimes, nobody takes 'responsibility' for the act, and the offender is identified only considerable time after the incidence, or not at all. In most cases there are various groups boasting about being the author. The authorities responsible therefore can truthfully state that it is unclear which terrorist organization is responsible and that various groups must be considered as possible offenders. They can point out that it would be mistaken to solely concentrate on the seemingly 'obvious' author because it may well be that the terrorist strategy is to direct the police in a wrong direction.

In many terrorist attacks in the past the culprits initially were unknown and have only later been identified. In most cases a number of different terrorist groups claimed authorship. Even if only one group claims responsibility, the authorities can still point out that there are many incidents in which uninvolved terrorist organizations claimed to have committed the attacks. In many cases the claim of responsibility proved to be mistaken. An example is the crash of a Russian plane over the Sinai desert (31 October 2015). Shortly afterward, the IS claimed responsibility but the Egyptian government vehemently denied that claim.

The authorities should also make clear that in a state based on the rule of law only the courts have the power to establish the culprit. Overhasty conclusions about the responsible actor are unacceptable and often unwarranted. Governments can use this competition among terrorists to gain media attention by leaving open as long as possible who committed the terrorist act. As long as there is no clear author, no group can benefit from unique media attention. Such action corresponds to the basic rule of law in a liberal democracy: a person or organization is taken to be innocent as long as the court has not found it to be guilty. The freedom of the media is thus not hampered but existing law is put into effect. Such denial of recognition for a terrorist act reduces the incentives of terrorist groups to undertake an attack at great cost and risk which is attributed to them only after considerable time and when media attention has faded. Even most dramatic terrorist acts draw

media attention in most cases no longer than a few days or at best weeks (Kepplinger and Habermeier 1995; Boydston et al. 2014).

The reaction of terrorists to refusing recognition can take various forms:

- A terrorist group may offer proof of authorship by contacting the media. This action is however risky as the terrorists must take into account that the media might cooperate with the police.
- A terrorist group may from the very beginning make clear that they undertook the attack. This procedure is also risky; the police may frustrate further attacks, and the terrorists may be caught before the attack.
- The terrorists may stop further attacks because they do not provide the publicity sought. They then resort to non-violent activities, for instance, by engaging in negotiations.

Irrespective of which reaction holds, terrorism will be reduced or the police will be in a better position to identify and capture terrorists.

A further advantage of the strategy of refusing recognition is that governments need not comply with demands as long as authorship is not established. In the case of kidnapping, the government can argue that they do not pay any ransom as long as various inconsistent claims about authorship exist. It is unlikely that in the meantime the hostages are killed because that makes the demands worthless.

There are some arguments speaking against the strategy of refusing recognition:

- The public rightly expects that governments inform about public affairs, including terrorists' threats. The policy of leaving things open until courts have established who is responsible may be interpreted as restricting information.
- The media cannot be prohibited to offer conjectures about the likely attacker. The more such conjectures conform to general presumptions, the more the general public will accept them. This result corresponds to the anchoring effect (Mussweiler and Strack 2000; Kahneman 2011).
- Politicians and police chiefs want to be seen as competent by the voters and the public. They make an effort to identify as quickly as possible the aggressors. Moreover, a disadvantage of the strategy of non-recognition is that it likely is not attributed to the persons in power. In that case they cannot profit from acting as 'strong persons'.

The strategy of non-recognition proposed does not substitute for normal security activities to check terrorism. Rather, it can be used as a complement. It has the great advantage that the government can take an active role rather than having to wait which group is good enough to take responsibility. The strategy can be openly discussed and used. Even if terrorist groups become aware of this strategy its effect is not curtailed.

7. Concluding Remarks

In contrast to much of the literature on terrorism, including analyses from the point of view of economics, this article develops five new and concrete proposals for effective strategies against terrorism. They are:

- Strengthening decentralization;
- Encouraging fighters to leave the terrorist camp;

- Reducing the incentives to enter terrorist groups;
- Negotiating with terrorist groups; and
- Reducing media attention.

Each of them has its advantages and disadvantages to be carefully considered. They certainly are no panacea to solve terrorist threats. However, they are proposed, as possible ways to overcome the commonly used ‘war against terrorism’ proved to be of little effect, or even to be counterproductive.

References

- Atkinson, S. E., T. Sandler, and J. Tschirhart (1987), “Terrorism in a Bargaining Framework”, *Journal of Law and Economics* 30, 1–21.
- Bapat, N. (2006), “State Bargaining with Transnational Terrorist Groups”, *International Studies Quarterly* 50, 213–29.
- Beckmann, K., R. Dewenter, and T. Thomas (2017), “Can News Draw Blood? The Impact of Media Coverage on the Number and Severity of Terror Attacks”, *Peace Economics, Peace Science and Public Policy* 23, 1–16.
- Bohnet, I. and B. S. Frey (1999), “Social Distance and Other-Regarding Behavior in Dictator Games”, *American Economic Review* 89, 335–9.
- Boydston, A. E., A. Hardy, and S. Walgrave (2014), “Two Faces of Media Attention: Media Storm Versus Non-Storm Coverage”, *Political Communication* 31, 509–31.
- Braithwaite, A. (2013), “The Logic of Public Fear in Terrorism and Counter-terrorism”, *Journal of Police, Crime and Psychology* 28, 95–101.
- Breuck, T. ed. (2007), *The Economic Analysis of Terrorism*. Routledge, London; New York.
- Bueno de Mesquita, E. (2005a), “Conciliation, Counterterrorism, and Patterns of Terrorist Violence”, *International Organization* 59, 145–76.
- Bueno de Mesquita, E. (2005b), “The Terrorist Endgame. A Model with Moral Hazard and Learning”, *Journal of Conflict Resolution* 49, 237–58.
- Carr, C. (2002), *The Lessons of Terror. A History of Warfare against Civilians: Why It has Always Failed and Why It Will Fail Again*. Random House, New York.
- Chalk, P. (1995), “The Liberal Democratic Response to Terrorism”, *Terrorism and Political Violence* 7, 10–44.
- Chang, N. (2002), *Silencing Political Dissent. How Post-September 11 Anti-terrorism Measures Threaten Our Civil Liberties*. Seven Stories Press, New York.
- Collier, P. and A. Hoeffler (2004), “Greed and Grievance in Civil War”, *Oxford Economic Papers* 56, 563–95.
- Cronin, A. K. (2009), *How Terrorism Ends: Understanding the Decline and Demise of Terrorist Campaigns*. Princeton University Press, Princeton.
- Diekmann, A., K. Eichner, P. Schmidt, and T. Voss eds. (2008), *Soziale Normen und Reziprozität*, Wiesbaden, VS Verlag.
- Drezner, D. (1999), “The Trouble with Carrots: Transaction Costs, Conflict Expectations, and Economic Inducements”, *Security Studies* 9, 188–218.
- Enders, W. and T. Sandler (2012), *The Political Economy of Terrorism*, 2nd ed. Cambridge University Press, New York.
- Frey, B. S. (2004), *Dealing with Terrorism – Stick or Carrot?*, Edward Elgar, London.
- Frey, B. S. and R. Eichenberger (1999), *The New Democratic Federalism for Europe: Functional Overlapping and Competing Jurisdictions*, Edward Elgar, Cheltenham, UK; Northampton, MA.
- Frey, B. S. and S. Luechinger (2003), “How To Fight Terrorism: Alternatives to Deterrence”, *Defence and Peace Economics* 14, 237–49.

- Frey, B. S. and S. Luechinger (2004), "Decentralization as a disincentive for terror", *European Journal of Political Economy* 20, 509–15.
- Gneezy, U., S. Meier, and P. Rey-Biel (2011), "When and Why Incentives (Don't) Work to Modify Behavior", *Journal of Economic Perspectives* 25, 191–210.
- Harmon, C. (2000), *Terrorism Today*. Edward Elgar, Cheltenham; Northampton, MA.
- Henderson, H. (2001), *Global Terrorism. The Complete Reference Guide*. Checkmark Books, New York.
- Hoffman, B. (2006), *Inside Terrorism*, Rev. ed, Columbia University Press, New York.
- Intriligator, M. D. (2010), "The Economics of Terrorism", *Economic Inquiry* 48, 1–13.
- Jetter, M. (2017), "Terrorism and the Media: The Effect of US Television Coverage on Al-Qaeda Attacks", IZA Working Paper 10708.
- Kahneman, D. (2011), *Thinking Fast and Slow*. Farrar, Straus and Giroux, New York.
- Kepplinger, H. M. and J. Habermeier (1995), "The Impact of Key Events on the Presentation of Reality", *European Journal of Communication* 12, 319–50.
- Konrad, K. (2002), "Terrorism and the State", WZB, Social Science Research Center Berlin, Discussion Papers.
- Krueger, A. B. (2007), *What Makes a Terrorist. Economics and the Roots of Terrorism*. Princeton University Press, Princeton NJ.
- Kydd, A. and B. F. Walter (2002), "Sabotaging Peace: The Politics of Extremist Violence", *International Organization* 56, 263–96.
- Lapan, H. E. and T. Sandler (1988), "To Bargain or Not to Bargain: That is the Question", *American Economic Review* 78, 16–21.
- Laqueur, W. (1977), *Terrorism*. Weidenfeld and Nicolson, London.
- Lussa, F. and J. Tavares (2008), "Economics and Terrorism: What We Know, What We Should Know and the Data We Need", CEPR Discussion Paper No. DP6509.
- Montalvo, J. G. and M. Reynal-Querol (2005), "Ethnic Polarization, Potential Conflict, and Civil Wars", *American Economic Review* 95, 796–816.
- Mussweiler, T. and F. Strack (2000), "The Use of Category and Exemplar Knowledge in the Solution of Anchoring Tasks", *Journal of Personality and Social Psychology* 78, 1038–52.
- Nacos, B. L. (1994), *Terrorism and the Media*. Columbia University Press, New York.
- Nacos, B. L. (2002), *Mass-mediated Terrorism: The Central Role of the Media in Terrorism and Counterterrorism*, Rowman and Littlefield, Lanham, MD.
- Nacos, B. L. (2016), *Terrorism and Counter-Terrorism*. 5th ed., Routledge, New York.
- Napoleoni, L. (2010), *Terrorism and the Economy: How the War on Terror is Bankrupting the World*. Seven Stories Press, New York.
- Napoleoni, L. (2014), *The Islamic Phoenix. The Islamic State and the Redrawing of the Middle East*. Seven Stories Press, New York.
- National Consortium for the Study of Terrorism and Responses to Terrorism, START (2017), The Global Terrorism Database at the University of Maryland. International Terrorism: Attributes of Terrorist Events (ITERATE).
- O'Sullivan, J. (1986), "Media Publicity Causes Terrorism", in B. Szumski, ed., *Terrorism: Opposing Viewpoints*. Greenhaven Press, St. Paul, MN, pp. 69–74.
- Pape, R. A. (1996), *Bombing to Win: Air Power and Coercion in War*. Cornell University Press, Ithaca.
- Pfeiffer, C. P. (2012), "Terrorism and its oxygen: A game-theoretic perspective on terrorism and the media", *Behavioral Sciences of Terrorism and Political Aggression* 4, 212–28.
- Richardson, H. W., P. Gordon, and J. E. Moore II, eds (2007), *The Economic Costs and Consequences of Terrorism*. Edward Elgar, Cheltenham; Northampton, MA.
- Rohner, D. and B. S. Frey (2007), "Blood and Ink! The Common-Interest-Game between Terrorists and the Media", *Public Choice* 133, 129–45.

- Sandler, T. (2015a), "Terrorism and Counterterrorism: An Overview", *Oxford Economic Papers* 67, 1–20.
- Sandler, T. ed. (2015b), "Special Issue on the Economics of Terrorism and Counterterrorism", *Oxford Economic Papers* 67.
- Schmid, A. P. and R. D. Crelinsten eds (1993), *Western Response to Terrorism*. Frank Cass, London.
- Schneider, F., T. Brueck, and D. Meierrieks (2015), "The Economics of Counter-Terrorism: A Survey", *Journal of Economic Surveys* 29, 131–57.
- Stern, J. (1999), *The Ultimate Terrorists*. Harvard University Press, Cambridge MA; London.
- Sunstein, C. R. (2005), *Laws of Fear. Beyond the Precautionary Principle*. Cambridge University Press, Cambridge.
- Taylor, M. and E. Quayle (1994), *The Terrorist Lives*. Brassey's, London; Washington, DC.
- Tollison, R. D. and T. D. Willet (1979), "An Economic Theory of Mutually Advantageous Issue Linkages in International Negotiations", *International Organization* 33, 425–49.
- Walsh, J. I. (2010), *Media Attention to Terrorist Attacks: Causes and Consequences*. Research Brief. Institute for Homeland Security Solutions.
- Wilkinson, P. (2000), *Terrorism Versus Democracy: The Liberal State Response*. Frank Cass, London.