

Globalisation and Terrorism in the Middle East

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Abstract

The processes involved in globalisation can disrupt the social, economic, and political systems of countries in the Middle East and North Africa. Such disruptions could resort in increased levels of political unrest, including outbreaks of terrorism. An analysis of terrorism levels and indices of economic, social, and political globalization and levels of terrorism between 1970 and 2010 indicated that levels of globalization were in fact associated with later outbreaks of terrorism. Social globalisation levels appeared to have the greatest impact in the first half of the study period.

Keywords: Globalisation, terrorism, Middle East

Introduction

Terrorism is a phenomenon that has spread to nearly all parts of the world in the last part of the twentieth century and the beginning of the twenty-first century. Many countries in the Middle East and North Africa have been at the center of this violence as the region has suffered from both domestic and international terrorist activities. While it is abundantly clear that there is no single cause that explains terrorism, it has been suggested that increasing globalisation has contributed to outbreaks of terrorist violence. If globalisation has, in fact, played such a role, then higher levels of terrorism would be associated with greater levels of globalisation. The following analyses will focus on various indices of globalisation and their relationship to incidents of terrorism in the Middle East and North Africa.

Globalisation

It appears to be quite likely that globalisation can be linked to political difficulties in a number of countries. Paul Wilkinson noted that modern terrorism has been a reaction to globalisation.[1] Globalisation is a very complex process, one that has been defined in a bewildering variety of ways. There is, however, at least some general agreement on broad outlines in the economic sphere; globalisation involves “the widening, deepening, and speeding up of international connectedness.”[2] Globalisation, however, goes beyond simple increases in economic interactions as it includes cultural, military, political and social dimensions.[3] in involving the movement of goods, services, people, ideas, and cultures across geographical space.[4] There are a number of factors likely to contribute to increased levels of globalisation. For example, recent increases in overall globalisation have been attributed to a favorable conjunction of technological, political, and economic circumstances.[5] Frequently, one of the consequences of the movements of ideas and materials is that socially dissimilar groups will be brought into closer physical proximity to each other, possibly leading to increases in conflict.[6] While in the long term it is possible that increased contacts among dissimilar groups and their homogenisation can reduce terrorism,[7] that time has obviously not yet come.

Globalisation can bring benefits. It has been suggested that the countries that have been most involved in the processes of globalisation are the countries that have benefitted the most from it.[8] Greater economic interactions with the outside world, however, can also lead to greater anxiety about the social and cultural changes that come with economic adaptations.[9] The level of inequality present in societies can moreover increase, as local groups and individuals have to adapt to external actors, with new competition from

elsewhere in the global economy, and other changes in their situations or position in the world. The spread of market capitalism that has been associated with globalisation in the 19th and 20th centuries has frequently undermined the structure of local economies.[10] Traditional economic systems, although frequently characterized by high levels of internal inequality, usually have some mechanisms of reciprocity that include obligations on the part of both the well-to-do and the less well-to-do. More modern economic practices, however, can undermine the reciprocity elements without any beneficial reduction in levels of inequality, thereby increasing societal tensions. Under these circumstances, even though globalisation frequently generates economic growth and increased wealth at a societal or national level, only some groups will benefit while other groups will suffer. One recent study found that increased trade, the traditional form that economic globalisation has taken, has been associated with reduced inequality; however, financial globalisation and especially direct foreign investment have been associated with greater inequality.[11] Of course, financial globalisation and direct foreign investment are a more modern form of globalisation. Financial globalisation doubled its impact from 1990 to 2004.[12]

Groups that are disadvantaged by the changes that accompany globalisation could naturally oppose the leaders, groups, or political systems that are associated with these changes. Such opposition may take acceptable forms through existing political channels, but it can also take more violent forms when disadvantaged groups cannot gain satisfaction by peaceful means. The importance of globalisation as a contributor of conflict can be observed in the fact that symbols of modernity that come with globalisation have often been among the targets for attacks.[13] Ironically, the violent opposition can in turn weaken governments and make it more difficult for them to manage the changes that are occurring or to meet the resulting challenges.[14] This type of situation can result in a vicious circle of unrest and challenges that continue to reduce the capacities of government, inducing political decay instead of political development. [15] Globalisation has also provided increased opportunities for dissident groups to strike across greater distances against any external actors that they see as enemies [16] The idea that a terrorist group can strike across these greater distances (as exemplified in the case of 9/11) intensifies the feelings of insecurity that terrorist activities are designed to generate.[17] This level of insecurity has been further increased by the globalisation of the media.[18]

The effects of globalisation are not always negative. Some forms of interaction with the world system have been linked with lower levels of transnational terrorism.[19] Analyses of outbreaks of civil wars, on the other hand, have shown mixed results in terms of their relation to globalisation but provide at least some indication of a connection.[20] If such is the case, globalisation can be both a blessing and a curse. Countries that have become more integrated into the global system may eventually be able to increase their stability, but countries undergoing the process of integration or facing the shocks that come with globalisation may be likely to suffer greater disruptions or problems.[21]

There has been significant evidence that globalisation has led to political violence in different eras and locations. In even earlier times, increasing globalisation was linked with violent outbreaks. In the ancient world, the incorporation of Judea -first into Greek empires and then into the Roman Empire- led to changes in the economic structure of the local society and marginalization of some groups in the province.[22] The incorporation of Judea and Israel into earlier empires had not challenged the basic economic and social systems of the Jewish community, unlike the challenges presented by the Greek and Roman states. One consequence of this disruption was a series of Judean revolts against the Greeks and the Romans. These revolts initially relied on terrorism and guerrilla warfare and then eventually on conventional battles.[23] The Boxer Rebellion in China in the late 19th century was in many ways an ethnic and cultural reaction to globalisation and the resulting intrusion of foreign ideas into traditional Chinese society. The attacks by the

Boxers against Chinese Christians and foreigners used classic terrorist techniques designed to expel foreign influences.[24] Eventually, the Boxers were able to escalate to open warfare against foreigners and even gained assistance from some regular military units and elements of the political elite.

In more recent times, left-wing extremists that were active in the latter part of the twentieth century were vehemently opposed to the global spread of capitalism.[25] World systems theory suggests that modernized states are responsible for underdevelopment and the failures of states on the periphery of the global system. [26] The increasing reach of multinational corporations that came with globalisation was seen as an unmitigated evil that had to be opposed by violence. Violent groups with right-wing ideologies have also been reacting to what they perceive to be the negative effects of globalisation. The current debates about immigration in Europe and the United States are another manifestation of such popular concerns. Populist groups have frequently opposed the immigration of people from culturally and religiously dissimilar areas. [27] The Red Scare in the United States after World War I was a similar reaction to the spread of what many in the United States saw as radical and dangerous leftist ideologies such as socialism, communism, and anarchism that threatened the American way of life.[28] Opposition to foreign influences is not restricted to majority populations. Smaller ethnic communities have also seen their cultures in danger of being overwhelmed or absorbed by larger groups as a consequence of the homogenizing trends that are often associated with globalisation and thus often resort to violence in “self-defense”.[29] It has been suggested that terrorist actions directed specifically against the United States have been a reaction against the cultural globalisation that comes with greater contact with the West.[30]

Religious terrorism increased greatly towards the end of the twentieth century. On several occasions various religious groups have reacted negatively to the challenges that come with globalisation. Globalisation by its very nature has the potential to undermine traditional religious values in societies. Western secularism has threatened indigenous cultures and local religions exposed to the broader world.[31]. The spread of ideas linked to globalisation can actually promote rebellions rooted in religion, a reaction to the threat of global homogenization.[32] One consequence of increasing globalisation and the spread of secularization has been a resurgence in religious beliefs, including fundamentalist views, in all of the world’s major religions.[33] There are Jewish extremist groups in Israel that have reacted to globalisation not only by targeting Palestinian Arabs but by attacking Jewish citizens that they see as too secular.[34] Islamic groups have clearly responded to threats that globalisation represents to them.[35] The global jihad has represented a continuing response to the threat that exposure to the broader world has represented to Islamic communities. The earlier violence involving Palestinians, especially the Palestinian Liberation Organization (PLO), was more of a nationalist response to the presence of Israel rather than a religious one but reflected at least in part globalisation effects. Boko Haram (“Western Education is Forbidden”) in Nigeria is just one of the latest manifestations of this trend. The economic dislocations that came with globalisation have marginalized many individuals in northern Nigeria, including groups of Muslims who have lost both their economic and social status. Many of them have been attracted to Boko Haram.[36] Elsewhere, militant Hindus in India have attempted to drive out foreign religious influences. Muslims have been the major targets but Christianity is also considered a threat to extremist Hindus.[37] Some right-wing groups in the United States that are opposed to foreign influences and immigrants have a clear religious element in their ideologies. The Aum Shinrikyo cult in Japan that launched the sarin gas attacks in the Tokyo subways reflected a high level of concern about the cultural and religious changes that came with globalization.[38] The effects have been universal “as the globalization of culture tends to promote fundamentalism or puritanism in almost all religions.” [39]

Globalisation has had an additional effect on the prevalence of terrorism and the techniques used. The presence of modern communications and transportation has provided opportunities for violent organizations

to learn from each other, to communicate with members in distant locations and to reach out to possible recruits. It also provides greater opportunities for violent groups to attempt to influence external actors with their attacks.[40] Although anarchists practiced an early form of leaderless resistance attacks with their campaigns of assassinations, this type of terrorism has become more prevalent with the internet and social media. The Islamic State in Syria and Iraq (ISIL) has demonstrated all too well the potential that modern forms of communications have for recruiting potential foreign fighters to its ranks and incite others to undertake lone wolf attacks on their home ground. Modern transportation linkages have facilitated travel, allowing the launching of terrorist attacks in foreign countries.

Clearly, globalisation can engender religious, ethnic, economic, and ideological opposition movements with splinter groups of them engaging in violent responses, including the use of terrorist tactics. Globalisation may cause such violence, contribute to it, or be largely irrelevant in some cases. Since there is no single cause for terrorism, globalisation will not explain all outbreaks of violence, but there could well be some connection. Therefore, the basic hypothesis to be tested in this article is whether or not higher levels of globalization can be associated with higher levels of terrorism. The analysis of terrorist incidents in the Middle East and North Africa provides an opportunity to determine whether various levels of globalisation have, in fact, led to more terrorism, at least for the countries in the MENA region.

Data

In order to determine if there were possible links between levels of globalisation and the occurrences of terrorism, two available databases containing the necessary information for both variables were used. The data on terrorism was drawn from the Global Terrorism Database maintained by the University of Maryland.[41] The database contains information on the number of incidents, fatalities, and injuries suffered in terrorist attacks. It was possible to compile annual totals for each year from 1970 to 2010. There were some occasions where the information on the number of injuries suffered in attacks was listed as unknown; therefore, those data were less precise than the data on incidents and deaths. These data on incidents and casualties were standardised to reflect the different population sizes of the countries in question by dividing the measures by population in the millions. Standardisation was essential since previous studies have noted that terrorism becomes more likely with an increase in population size.[42] Simple probability, of course suggests that terrorist incidents will be more frequent in larger countries. For the years from 1970 to 1979, the number of incidents and fatalities was divided by population (in the millions) in 1975. Population in 1985 was the divisor for the data for the 1980s, population in 1995, the divisor for the 1990s, and population in 2005 the divisor for the years in the 21st century.[43] The World Bank population estimates provided a standardized base for population figures for all the countries in the region, and the World Bank data had the advantage of estimates based on the same methodology. Further, since a lack of incidents, fatalities, or injuries would be more meaningful in Egypt than in Bahrain or Qatar, each zero entry for incidents or for zero fatalities was coded 0.01 instead of 0.00 for purposes of standardization, giving slightly greater weight to the absence of any activity in more populous countries. This approach duplicates one used in earlier studies that analyzed the economic effects of terrorism in Latin American countries and sub-Saharan Africa.[44]

Data on globalisation for each year from 1970 to 2010 were drawn from the KOF Index of Globalization developed by the Swiss Economic Institute. This comprehensive database has an economic index of globalisation, a social index of globalisation, and a political index of globalisation for each year. Data for individual countries for each index were not available for every year, but there were measures for at least some of the indices for each year. There is also a cumulative index that combined the economic, social, and political data. This overall index value represents a weighted average for the three indices. The

individual indices and the cumulative provided measures that reflected the complex nature of the process of globalisation. The economic index is based on financial flows and trade as well as indications of restrictions on international interactions. The social index is based on information flows, foreign citizens in residence, and measures of personal contacts with the outside world. The political index relies on the number of embassies present in a country, membership in international organizations, international treaties, and participation in United Nations peacekeeping efforts. None of the indices was based on a single measure; thus, there was a built-in smoothing function that leveled out any dramatic changes from any single economic, social, or political measure. The overall index, of course, reflects an even greater smoothing function since it is based on a weighted calculation drawn from the three indices. The economic index was weighted 36%, the social index 37%, and the political index 26% for the calculation of the overall index. [45] Data were available for almost all the Middle East and North African countries except for the People's Democratic Republic of Yemen (South Yemen) for which there was no data for the period since it became independent. Restricting the analyses to these countries alleviated some of the difficulties of previous analyses of globalisation and increases in political violence by focusing on one region rather than the whole world (Inclusion of the developed countries in West Europe and elsewhere could be a potential problem. These countries are the most globalised but the least likely states to face civil wars). The availability of three individual indices and the overall index value mean that it has been possible to measure the influence of different forms of globalisation as well as making a more comprehensive measurement. These databases combined to provide information for a forty year period which provides an excellent opportunity not only to determine whether globalisation and terrorism are linked but if any effects of globalisation are constant or whether there were changes that had occurred through time and with different types of interactions.

In the following analyses the basic measure of linkages between globalisation and terrorist activities was based on a series of correlations between these indices and the standardized measure of terrorist incidents, fatalities, and injuries. Correlations were run for the economic, social, political, and total globalisation indices. If globalisation had contributed to outbreaks of terrorism as hypothesized, then there would be positive associations between the indices and the measures of terrorism. While there could be an immediate link between globalisation and terrorism, it was also possible that the effects of globalisation might take some time to develop. As a consequence, the levels of economic, social, and political globalisation in a given year, as well as the level for the overall index were correlated with incidents and fatalities in not only in the same year t , but also in years $t+1$, $t+2$, and $t+3$. The tests for lagged effects provided an opportunity to determine the possible long-term connections between globalisation and terrorism.

Results

If globalisation in its various forms was in fact placing stress on societies in the Middle East and North Africa, then the number of incidents or casualties would be greater in those countries with higher levels of interaction with the outside world. There could be possible differences between the effects of economic, social, and political interactions. Economic interactions have been seen as particularly disruptive to traditional societies, and it is possible that the analyses of countries in this region could provide support for this view that economic activities could have a greater impact than social or political ones. It is also possible that social or political interactions can bring in their wake new (and potentially threatening) ideas and viewpoints, which could result in increased violent opposition to outside influences.

Terrorism was a major issue in a number of countries in the 1970s. A variety of Palestinian groups were engaging in activities against Israel and Israeli interests. Turkey was experiencing violence between the left and right that led to brief military rule beginning in 1971 and levels of violence that became so great

that another military intervention occurred in 1980. During this decade the Lebanese political system disintegrated and a complex civil war began. Some distinctive patterns emerged for the region in this decade (see Table 1). Over half (69 of 120 possible) of the correlations for the social index were significant ones, including 45 at the $\alpha = .05$ level. A slightly higher number (72) of the overall index was significant as well, but not as many were significant at the higher level, perhaps reflecting the lack of association between economic and political globalisation with the terrorism measures. The political index had virtually no explanatory power for any of the terrorism variables (only 5 of 120 correlations). The economic index only had limited explanatory value as well. The economic index of globalisation had the smallest number of actual observations since data was missing for this index more frequently than for either the social or political indices. In this period, the countries that had higher levels of social integration with the outside world were the ones more likely to experience higher levels of terrorism in the same year and in subsequent years. There was no apparent difference for the predictive values of any of the three measures of terrorism. Of the three measures, the number of injuries was somewhat less frequently as a good predictor. This result may reflect the fact that information on injuries in some attacks was not known, usually in cases where there were bound to have been some injuries. There was not any real difference in the number of significant associations in year t , $t + 1$, $t + 2$, and $t + 3$. Interestingly enough, in 1978 and 1979 there were a few indications (high negative associations) that countries that were the least economically integrated into the world system suffered more from terrorism.

In the 1980s, the conflict in Lebanon still continued with the associated terrorist violence. The first years also witnessed the continuation of violence between the left and right in Turkey. In the later years of the decade, problems were beginning to appear in Algeria that would eventually lead to a civil war situation. Israel and the Occupied Territories continued to be sites for attacks. The index for social globalisation had by far the greatest link with terrorism (see Table 2). Virtually every association was significant (114 out of 120). Clearly, higher levels of social interactions with the outside world are linked with increased activities by organizations willing to use terrorist techniques. There were no cases in which greater political globalisation was associated with terrorism in the same or later years. There were only a few cases in which economic globalisation or the total globalisation index was linked with terrorism. There were actually twelve cases in which there were negative associations in the other tail of the distribution for economic globalisation. These associations occurred in the first part of the decade, indicating that there was the possibility that the countries less integrated into global economy were slightly more likely to be affected by terrorism.

In the late 1980s there were seven such negative associations for the index for political globalisation, indicating that countries with weaker ties to the outside world might have been more vulnerable to terrorism or perhaps were targeted because they lacked external support or allies. At least one study found that more treaty relationships were associated with lower levels of terrorism.[46] The results for this period might suggest that this would be a possibility. The positive associations on the social index were similar for years t , $t + 1$, $t + 2$, and $t + 3$. The small number of other positive associations were scattered among the same year or later years. All three measures of terrorist violence (incidents, fatalities, and injuries) had similar results.

Table 1
Correlations between Globalization and Terrorism in Middle East in the 1970s

Year and Index	time t			time t + 1			time t + 2			time t + 3		
	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries
1970												
Economic	.188	.301	.084	.100	.401*	.413*	.346	.428*	.412*	.196	.218	.413*
Social	.294	.373*	.234	.301	.304	.301	.744**	.344	.299	.592**	.578*	.301
Political	-.184	-.060	-.208	-.031	.386*	.343	-.177	.310	.343	.070	.178	.340
Total	.159	.323	.094	.208	.485*	.476*	.546	.489*	.475*	.460*	.510*	.475*
1971												
Economic	-.083	.263	.177	.040	.162	.167	.006	.056	.174	.338*	.201	.194
Social	.152	.277	.190	.471*	.201	.181	.409*	.393*	.187	.514*	.199	.228
Political	.095	.234	.297	.028	.293	.306	.126	.200	.298	.150	.279	.289
Total	.079	.427*	.345*	.314*	.341*	.337*	.302	.339*	.342*	.533**	.360*	.378*
1972												
Economic	.053	.159	.163	.005	.054	.170	.344*	.198	.191	.107	.170	.164
Social	.469*	.199	.179	.406*	.390*	.185	.511*	.197	.226	.434*	.430*	.359*
Political	-.070	.274	.296	.082	.165	.289	.109	.269	.276	.097	.204	.300
Total	.286	.338*	.337*	.291	.331*	.343*	.527**	.361*	.378*	.324*	.404*	.440*
1973												
Economic	-.020	-.036	.158	.312	.183	.176	.082	.158	.152	-.067	-.102	-.027
Social	.405*	.390*	.187	.513*	.200	.228	.433*	.430*	.360*	.424*	.172	-.149
Political	.079	.148	.281	.093	.262	.267	.086	.190	.287	.210	-.020	.176
Total	.273	.304	.319	.493*	.336*	.352*	.300	.378*	.410*	.295	.005	-.148
1974												
Economic	.342*	.206	.199	.099	.179	.174	-.057	-.102	-.010	-.016	.353*	.101
Social	.511*	.196	.225	.432*	.428*	.357*	.422*	.174	-.153	.063	.366*	.140
1975												
Economic	.113	.206	.201	-.046	-.098	.015	-.013	.364*	.126	.277	.388*	.194
Social	.430*	.427*	.356*	.418*	.172	-.155	.058	.365*	.139	.416*	.469*	.328*
Political	.042	.114	.201	.207	-.015	.139	.308*	.017	.319*	.171	.045	.217
Total	.288	.359*	.399*	.307	.018	-.140	.167	.451*	.289	.466*	.400*	.391*
1976												
Economic	-.032	-.091	.027	-.001	.375*	.140	.291	.400*	.206	.227	-.039	.189
Social	.419*	.171	-.156	.060	.365*	.139	.417*	.470*	.328*	.311*	.208	.274
Political	.188	-.018	.142	.289	.017	.303	.156	.032	.200	.192	.260	.220
Total	.309*	.022	-.127	.171	.455*	.293	.468*	.399*	.393*	.397*	.218	.365*
1977												
Economic	-.003	.373*	.135	.289	.398*	.202	.223	-.039	.185	.185	[-.381]	.255
Social	.066	.366*	.139	.417*	.471*	.327*	.310*	.208	.273	.435*	.311*	.424*
Political	.260	-.019	.268	.117	.327*	.165	.154	.236	.186	.092	.100	.048
Total	.165	.443*	.281	.458*	.310*	.382*	.385*	.213	.354*	.365*	.171	.321*
1978												
Economic	.320	.423*	.232	.252	-.021	.215	.215	[-.387]	.278	.261	-.332	-.258
Social	.419*	.473*	.328*	.310*	.207	.274	.437*	.312*	.426*	.446*	.349*	.361*
Political	.125	.032	.159	.146	.234	.176	.107	.126	.075	.028	.029	.036
Total	.471*	.409*	.390*	.392*	.218	.361*	.379*	.182	.335*	.336*	.200	.222
1979												
Economic	.256	-.010	.211	.224	[-.350]	.218	.226	[-.370]	-.284	.249	[-.362]	[-.328]
Social	.305*	.208	.263	.435*	.313*	.410*	.433*	.341*	.356*	.439*	.348*	.341*
Political	.117	.198	.153	.084	.112	.080	.027	.030	.034	.045	.024	.051
Total	.383*	.214	.346*	.384*	.198	.334*	.336*	.207	.231	.356*	.216	.223

* $\alpha = .10$ $\alpha = .05$ $\alpha = .01$ Correlations in brackets are in other tail of distribution
The number of observations varies for the various indices which influences the level of significance for correlations at the same level.

In the 1990s terrorist attacks were regularly occurring in Israel and the Occupied Territories. In this decade Algeria suffered through a civil war in which terrorist attacks by dissident Islamic groups were an important part of the challenge to the government. Turkey was then facing attacks from Kurdish nationalists and a limited number of attacks by Islamic groups. Many other countries in the region now had to deal with at least some terrorist attacks by Islamic groups that were challenging what they saw as governments which were too secular and which had ties with the West that were seen as being too close. The various measures of globalisation had different patterns in this decade. The social index still had the greater connection with terrorism but much less frequently than in the past—there were only 21 significant correlations. Most of these links were in the early part of the decade, indicating that the patterns from the 1980s continued into the first years of the new decade. Any association of higher social globalisation and terrorism had disappeared by the end of the decade. There were only a few correlations (four) indicating that economic globalisation could be linked with terrorism.

Unlike the previous decade there were no indications in the 1990s that weaker global economic ties were associated with terrorism. There were almost as many correlations for the political index as for the social index (18), suggesting that greater political globalisation was associated with terrorism—reversing the negative trend that was the case in the 1980s. During this period, there was no evidence that greater external political ties had supplied benefits for the countries in question. While the higher associations for the social index were concentrated in the early years of the decade, the significant associations for the political index were scattered throughout the period. Given the limited number of higher correlations, it is not surprising that the overall index that combined the other indices was limited to only seven significant examples. There was no pattern in terms of whether the significant associations were more prevalent in the same year as the values for the indices or in later years ($t + 1$, $t + 2$, or $t + 3$). All three measures of terrorism (incidents, fatalities, injuries) performed equally well or poorly in this time period.

In the first decade of the twenty-first century the situation in various parts of the Middle East changed. The attack on 9/11, of course, changed the views of governments, populations, and dissident groups. The attacks had some of their greatest repercussions in the Middle East region and Afghanistan. The 2003 US invasion of Iraq resulted in increased terrorist and non-terrorist attacks by many groups opposed to the US presence, new governments, or other contenders for political power and influence in the state. Islamic jihadists came to Iraq from many countries. There were other attacks by Islamic extremists in many other countries in the Middle East and North Africa. Yemen became a center for terrorism in the shape of Al Qaeda in the Arabian Peninsula, and Al Qaeda in the Islamic Maghreb was active in North Africa and parts of sub-Saharan Africa. The results for this decade were quite different from the earlier years. The indices for political globalisation and social globalisation had no significant associations during the years in question (see Table 4). The index for economic globalisation had 25 cases of significant associations with terrorism concentrated in the first half of the decade, indicating that economic globalisation may have had a destabilizing influence in these years. The overall index had only five significant positive associations in 2001 and 2002.

Table 2
Correlations between Globalization and Terrorism in Middle East in the 1980s

Year and Index	time t			time t + 1			time t + 2			time t + 3		
	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries
1980												
Economic	.203	[-.351]	.173	.191	[-.383]	-.299	.227	[-.376]	[-.390]	.311	.403*	.288
Social	.437*	.315*	.412*	.435*	.343*	.358*	.441*	.349*	.344*	.417*	.449*	.398*
Political	.095	.132	.081	.029	.038	.046	.061	.037	.033	.039	-.032	.037
Total	.361*	.189	.309*	.313*	.194	.219	.338*	.204	-.198	.287	.350*	.267
1981												
Economic	.165	[-.412]	[-.327]	.217	[-.408]	[-.420]	.309	.391*	.284	.194	[-.358]	.077
Social	.439*	.347*	.362*	.444*	.355*	.349*	.420*	.452*	.400*	.406*	.230	.405*
Political	.013	.025	.033	.043	.026	.020	.030	-.034	.028	.031	-.040	.037
Total	.296	.183	.207	.323*	.195	.187	.277	.339*	.257	.263	.027	.266
1982												
Economic	.216	[-.412]	[-.427]	.312	.386*	.291	.193	-.324	.075	.376*	.006	.210
Social	.442*	.355*	.350*	.420*	.450*	.400*	.406*	.229	.404*	.426*	.391*	.393*
Political	.038	.033	.025	.035	-.023	.084	.035	-.039	.034	.034	.032	.032
Total	.320*	.198	.190	.280	.342*	.260	.266	.038	.266	.297	.246	.251
1983												
Economic	.314	.384*	.290	.191	-.301	.071	.372*	.016	.215	.229	.199	.182
Social	.398*	.426*	.380*	.384*	.201	.381*	.405*	.371*	.374*	.403*	.384*	.377*
Political	.003	-.024	.002	.002	-.082	-.003	.003	.002	.001	.010	.011	.002
Total	.260	.327*	.241	.245	.021	.243	.276	.229	.233	.285	.250	.239
1984												
Economic	.199	[-.340]	.076	.372*	.026	.223	.232	.212	.189	.300	-.045	.208
Social	.345*	.189	.341*	.368*	.338*	.339*	.362*	.342*	.337*	.419*	.300*	.342*
Political	-.004	-.098	-.011	-.003	-.005	-.006	.001	.004	-.006	.019	.043	.007
Total	.224	.004	.221	.255	.210	.231	.261	.228	.217	.295	.204	.230
1985												
Economic	.375*	.016	.219	.245	.206	.201	.302	-.003	.227	.249	-.083	.171
Social	.368*	.338*	.339*	.362*	.343*	.337*	.420*	.300*	.343*	.367*	.327*	.333*
Political	-.003	-.004	-.005	.002	.005	-.005	.022	.043	.008	.004	-.004	-.007
Total	.285	.213	.217	.267	.231	.221	.299*	.211	.235	.256	.206	.214
1986												
Economic	.214	.165	.297	.191	-.046	.204	.221	-.096	.138	.233	.283	.213
Social	.360*	.343*	.336*	.421*	.307*	.343*	.368*	.330*	.332*	.372*	.396*	.337*
Political	-.010	-.007	-.016	.011	.031	-.003	-.008	-.014	-.017	-.017	-.048	-.013
Total	.259	.225	.216	.296	.207	.231	.251	.204	.210	.277	.269	.220
1987												
Economic	.283	-.055	.203	.212	-.116	.130	.230	.281	.210	.181	.097	.192
Social	.422*	.309*	.344*	.369*	.332*	.333*	.373*	.397*	.338*	.299*	.339*	.361*
Political	.034	.056	.023	.017	.010	.006	.012	-.021	.011	[-.380]	-.230	-.017
Total	.308*	.219	.244	.264	.216	.223	.291	.285	.233	-.006	.079	.258
1988												
Economic	.198	-.128	.109	.211	.271	.191	.165	.093	.175	.231	.093	.120
Social	.370*	.333*	.334*	.373*	.399*	.339*	.300*	.341*	.361*	.349	.350*	.345*
Political	.047	.044	.032	.055	.044	.039	[-.333]	-.159	.020	[-.318]	-.145	-.031
Total	.266	.222	.226	.294	.298	.236	.000	.098	.259	.034	.116	.187
1989												
Economic	.201	.253	.183	.156	.076	.167	.222	.073	.109	.098	-.123	.069
Social	.370*	.395*	.336*	.302*	.341*	.360*	.350*	.350*	.343*	.308*	.208	.254
Political	.003	-.005	.002	[-.332]	-.185	-.020	[-.316]	-.162	-.052	[-.326]	-.165	[-.358]
Total	.285	.289	.231	-.026	.074	.247	.011	.098	.179	-.053	-.079	-.111

* $\alpha = .10$ $\alpha = .05$ $\alpha = .01$ Correlations in brackets are in other tail of distribution
The number of observations varies for the various indices which influences the level of significance for correlations at the same level.

What was much more noticeable was the large number of negative associations in the other tail of the distribution -indicating that countries that were less involved in the global scene were the ones more likely to suffer from terrorism—or perhaps that there was a feedback loop in which terrorism had weakened the global ties of some countries that was then reflected in the later associations. It is also possible that the linkages that came with economic globalisation might help to mitigate the effects of terrorism. Foreign aid, for example, has been determined to reduce the negative effects of terrorism on foreign direct investment. [47] The political index lacked any such linkages, but the economic index had nine such negative associations concentrated in the last four years. The index of social globalisation had 42 such negative associations (all after 2002), presenting a pattern that was completely different from the 1970s and 1980s when greater social integration had been consistently linked to terrorism. By the 21st century it became clear that the countries with lower values were suffering from more terrorism.

In the late 1980s there were seven such negative associations for the index for political globalisation, indicating that countries with weaker ties to the outside world might have been more vulnerable to terrorism or perhaps were targeted because they lacked external support or allies. At least one study found that more treaty relationships were associated with lower levels of terrorism [46]. The results for this period might suggest that this would be a possibility. The positive associations on the social index were similar for years t , $t + 1$, $t + 2$, and $t + 3$. The small number of other positive associations were scattered among the same year or later years. All three measures of terrorist violence (incidents, fatalities, and injuries) had similar results.

The overall index of globalisation had 55 such negative associations indicating that less integrated states had now become more vulnerable to this type of political violence. It was possible that the global jihadists were focusing many of their attacks on these states because they might be the ones with the weakest security and intelligence services. The few positive associations and the much larger number of negative correlations were present for both the same year and with lagged effects. All three of the terrorism variables had the occasional positive correlation or the more frequent negative correlations at similar levels.

The shift in the linkages between terrorism and globalisation appeared to occur between 2002 and 2003. There is always a danger of spurious associations with any analysis of this type but the globalisation indices are multifaceted in nature, thus limiting this possibility. It is more likely that globalisation may be an intervening variable rather than a spurious one. As an intervening variable it reflects other factors, but that is precisely the value of using an index that is created from multiple variables.[48]. One confounding factor, however, could be the effects of the 2003 intervention of Iraq by the United States and its allies. This change in 2003 raised the possibility that the violence in Iraq might explain the shifts in the results since it was the scene of many attacks against non-military targets that qualify as terrorism. As a consequence, the analyses were run for the years from 2003 to 2010 without Iraq being included in the data set to determine whether the events in that country were responsible for the reversal in the results.

Table 3
Correlations between Globalization and Terrorism in Middle East in the 1990s

Year and Index	time t			time t + 1			time t + 2			time t + 3		
	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries
1990												
Economic	.137	.047	.151	.214	.049	.092	.098	-.152	.057	.090	-.096	.114
Social	.357*	.356*	.361*	.420*	.356*	.343*	.412*	.218	.357*	.224	.101	.311*
Political	.047	.082	.028	.056	.057	.016	.140	.317*	.150	.295	.374*	.071
Total	.290	.270	.285	.334*	.260	.234	.341*	.203	.300*	.239	.168	.270
1991												
Economic	.187	.035	.076	.124	-.115	.075	.071	-.074	.081	-.046	-.172	.058
Social	.377*	.314*	.309*	.371*	.186	.320*	.201	.083	.280	.234	.058	.268
Political	.061	.062	.032	.150	.311*	.153	.099	.352*	.051	.229	.416*	.042
Total	.296	.183	.207	.323*	.195	.187	.277	.339*	.257	.263	.027	.266
1992												
Economic	.139	-.074	.099	.087	-.049	.099	-.017	-.145	.074	.301	-.014	-.114
Social	.364*	.197	.320*	.206	.094	.293	.244	.066	.271	.297	.054	-.023
Political	.098	.251	.104	.067	.303*	.019	.179	.356*	.001	-.083	.224	.328*
Total	.308*	.208	.274	.201	.175	.228	.239	.146	.191	.228	.129	.084
1993												
Economic	.106	-.028	.122	-.001	-.128	.102	.298	-.122	-.010	.367*	.105	-.010
Social	.283	.140	.341*	.243	.071	.315*	.257	-.033	.110	.274	.194	.110
Political	.029	.257	-.023	.125	.299*	-.051	-.115	.270	.222	[-.299]	-.018	.222
Total	.229	.192	.239	.219	.137	.199	.232	.058	.159	.202	.159	.202
1994												
Economic	.034	-.068	.105	.292	-.109	-.017	.350*	.094	.157	.247	-.158	.002
Social	.186	.019	.262	.301*	-.070	.052	.340*	.180	.253	.242	-.211	.047
Political	.100	.249	-.005	-.151	.147	.103	-.289	-.105	.003	-.214	.064	.023
Total	.190	.110	.194	.243	-.011	.078	.240	.121	.237	.174	-.147	.054
1995												
Economic	.307	-.087	-.013	.358*	.103	.153	.264	-.134	-.004	-.086	-.144	-.066
Social	.275	-.054	.064	.305*	.174	.246	.236	-.163	.066	.085	-.152	.018
Political	-.069	.322*	.221	-.255	.028	.028	-.109	.287	.168	.149	.296	.240
Total	.283	.068	.132	.260	.183	.253	.233	-.035	.118	.121	-.028	.098
1996												
Economic	.388*	.137	.188	.289	-.134	.025	-.074	-.143	-.047	-.068	-.159	.009
Social	.288	.144	.216	.215	-.183	.043	.065	-.173	-.007	.116	-.146	.009
Political	-.244	.065	.066	-.084	.325*	.203	.180	.335*	.279	.098	.332*	.210
Total	.277	.191	.263	.245	-.046	.123	.118	-.038	.096	.134	-.019	.102
1997												
Economic	.281	-.137	.060	-.059	-.142	-.025	-.062	-.161	.030	.030	-.174	-.041
Social	.226	-.181	.043	.080	-.169	-.002	.135	-.137	.023	.072	-.195	-.041
Political	-.070	.330*	.208	.195	.340*	.288	.114	.341*	.223	.197	.318*	.067
Total	.256	-.046	.139	.140	-.035	.111	.157	-.010	.124	.160	-.065	-.004
1998												
Economic	-.046	-.139	.000	-.082	-.165	.035	.063	-.169	.007	.232	.099	.235
Social	.070	-.174	-.008	.122	-.148	.007	.061	-.201	-.045	.172	.003	.164
Political	.085	.120	.125	.074	.146	.132	.072	.101	.008	.032	.080	.027
Total	-.097	-.072	-.096	-.085	-.095	-.127	-.141	-.090	-.107	-.084	-.085	-.053
1999												
Economic	-.066	-.167	.077	.105	-.169	.089	.310	.152	.319	.269	.080	.318
Social	.128	-.124	.019	.078	-.173	-.040	.178	.021	.166	.151	-.029	.163
Political	.096	.305*	.189	.157	.278	.033	.041	.176	.004	.063	.045	.005
Total	.149	-.020	.122	.174	-.066	.041	.270	.146	.249	.245	.043	.247

* $\alpha = .10$ $\alpha = .05$ $\alpha = .01$ Correlations in brackets are in other tail of distribution
The number of observations varies for the various indices which influences the level of significance for correlations at the same level.

Removing Iraq from the analyses did lead to some changes, but not exactly the ones that would explain the reversal. The correlations between terrorism and the index of economic globalisation remained the same since Iraq was one of the countries with missing data for this index for these years. There was no real change in the results for the political index of globalisation as it lacked any consistent associations when Iraq was removed from the data set. There were no positive associations between the index of social globalisation with Iraq included, but nine when Iraq was removed from the analyses. Further, the number of negative associations between the measures of terrorism and this index declined from 42 with Iraq to 12 without Iraq. This drop in the number was larger than would be expected with the removal of one observation from a relatively small data set. The nine positive associations, which were similar to patterns in earlier years, were present in 2003, 2004, and 2005. Although lower in absolute number, the negative linkages appear in later years.

These changes would suggest that the US invasion of Iraq did indeed have an impact on levels of terrorism beyond what would be accounted for by globalisation indices. The overall index had a pattern similar to the social index. There were 15 positive associations in 2003, 2004, 2005, and 2006, but then the pattern changes to one where there were relatively high negative correlations. The number of overall negative associations (11) between 2003 and 2010 was much lower when Iraq was excluded from the analyses than when it was included (52).

Events in Iraq did not directly explain the differences that became apparent a few years into the decade since they eventually appeared when Iraq was removed from the data set. It is possible, however, that the American intervention of Iraq by itself or the intervention of Iraq combined with the 9/11 attacks and the overthrow of the Taliban in Afghanistan resulted in major changes in the context in which terrorism was taking place in the Middle East and North Africa. Al Qaeda had become less of a hierarchical organization and more of a network and increasingly relied on a leaderless resistance style of assault in its foreign targeting after the US intervention in Afghanistan. Organizations linked to Al Qaeda and the ones inspired by it increased as did actions by individuals who saw themselves as part of the broader global jihad movement. The presence of US and other troops in Iraq and Afghanistan provided Al Qaeda and other groups with an excellent propaganda opportunity to mobilize individuals and groups by suggesting that the United States and the West were openly attacking Islam.[49] It would seem likely that Al Qaeda elements were able to move into some of the states less integrated into the global system to enhance its chances of survival and to create new bases after the defeat of the Taliban regime. It would be more difficult for the West to undertake major military campaigns in these states or provide major support to indigenous military forces than might be the case in countries with stronger governments and greater links to the global system.

The location for terrorist attacks changed, as a consequence of major changes in the regional political and military environment that may have placed states less integrated into the global system more at risk.

Table 4
Correlations between Globalization and Terrorism in Middle East in the 2000s

Year and Index	time t			time t + 1			time t + 2			time t + 3		
	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries
2000												
Economic	.122	-.169	.154	.342*	.178	.355*	.306	.155	.355*	.395*	.289	.363*
Social	.075	-.170	-.044	.173	.020	.161	.146	-.033	.159	.166	.031	.056
Political	.119	.256	.004	.012	.149	-.018	.035	.018	-.018	-.043	.042	-.049
Total	.171	-.064	.061	.280	.159	.261	.257	.071	.260	.241	.129	.111
2001												
Economic	.316	.154	.330*	.280	.124	.330*	.367*	.271	.339*	.116	.202	.316
Social	.268	.089	.267	.239	.068	.265	.239	.104	.124	-.271	-.289	-.220
Political	.004	.132	-.022	.026	.015	-.021	-.050	.034	-.051	.012	-.039	-.047
Total	.317*	.179	.306*	.292	.114	.305*	.260	.152	.130	.130	-.258	[-.301]
2002												
Economic	.327*	.169	.367*	.410*	.317	.371*	.169	.247	.345*	.389*	.248	.434*
Social	-.080	-.090	-.052	-.110	-.098	-.086	-.089	-.069	-.077	-.043	-.055	-.015
Political	.032	.024	-.018	-.052	.030	-.064	-.011	-.066	-.073	-.069	-.045	-.061
Total	.316*	.139	.321*	.274	.164	.126	.278	[-.329]	-.258	-.207	[-.320]	-.264
2003												
Economic	.410*	.323	.376*	.175	.252	.348*	.394*	.264	.444*	.358*	-.133	.270
Social	.224	.083	.101	[-.320]	[-.319]	-.252	-.207	[-.317]	-.265	-.239	[-.359]	[-.329]
Political	-.066	.018	-.086	-.038	-.091	-.099	-.097	-.070	-.088	-.096	-.105	-.096
Total	.265	.154	.112	[-.306]	[-.356]	-.285	-.232	[-.346]	-.289	-.251	[-.404]	[-.369]
2004												
Economic	.165	.226	.305	.353*	.227	.383*	.319	-.115	.240	.263	-.288	-.103
Social	[-.301]	[-.323]	-.253	-.208	[-.321]	-.267	-.240	[-.364]	[-.334]	-.282	[-.358]	[-.337]
Political	-.075	-.134	-.143	-.099	-.104	-.117	-.126	-.145	-.138	-.116	-.134	-.123
Total	[-.313]	[-.368]	[-.301]	-.228	[-.354]	[-.299]	-.262	[-.412]	[-.381]	[-.313]	[-.405]	[-.381]
2005												
Economic	.349*	.250	.391*	.316	-.126	.238	.259	-.297	-.124	.322*	-.174	.253
Social	-.180	-.296	-.242	-.214	[-.339]	[-.306]	-.255	[-.332]	[-.311]	.015	-.254	-.111
Political	-.116	-.124	-.136	-.146	-.166	-.159	-.136	-.155	-.144	-.062	-.091	-.036
Total	-.217	[-.341]	-.286	-.253	[-.399]	[-.366]	[-.301]	[-.391]	[-.368]	.016	-.284	-.125
2006												
Economic	.313	-.134	.225	.254	-.308	-.127	.318	-.170	.253	.219	[-.452]	.088
Social	-.212	[-.335]	[-.304]	-.253	[-.329]	[-.308]	.017	-.251	-.110	-.234	[-.346]	[-.313]
Political	-.191	-.205	-.197	-.178	-.194	-.182	-.105	-.132	-.076	-.178	-.186	-.195
Total	-.271	[-.414]	[-.382]	[-.319]	[-.407]	[-.383]	-.003	[-.300]	-.142	-.291	[-.419]	[-.392]
2007												
Economic	.214	[-.344]	-.199	.287	-.216	.217	.185	[-.518]	.031	.082	-.208	[-.389]
Social	-.243	[-.321]	[-.299]	.023	-.244	-.103	-.244	[-.337]	[-.303]	[-.366]	[-.439]	[-.354]
Political	-.196	-.189	-.186	-.204	-.220	-.200	-.211	-.191	-.184	-.260	-.201	-.188
Total	[-.305]	[-.379]	[-.361]	-.042	[-.326]	-.192	-.286	[-.397]	[-.361]	[-.378]	[-.463]	[-.408]
2008												
Economic	.246	-.219	.175	.150	[-.506]	-.008	.095	-.177	[-.366]			
Social	.035	-.221	-.084	[-.309]	[-.274]	[-.339]	[-.339]	[-.409]	[-.325]			
Political	-.107	-.265	-.218	-.233	-.223	-.277	-.277	-.248	-.232			
Total	-.013	[-.326]	-.188	-.269	[-.394]	[-.357]	[-.369]	[-.460]	[-.405]			
2009												
Economic	.135	[-.503]	.000	.030	-.244	[-.408]						
Social	-.218	[-.324]	-.290	[-.354]	[-.423]	[-.341]						
Political	-.186	-.233	-.222	-.264	-.239	-.229						
Total	-.284	[-.404]	[-.368]	[-.388]	[-.476]	[-.417]						
2010												
Economic	.010	-.269	[-.434]									
Social	[-.332]	[-.403]	[-.321]									
Political	-.259	-.232	-.214									
Total	[-.371]	[-.460]	[-.394]									

* $\alpha = .10$ $\alpha = .05$ $\alpha = .01$ Correlations in brackets are in other tail of distribution
The number of observations varies for the various indices which influences the level of significance for correlations at the same level.

Conclusions

The above analyses indicate that globalisation was connected with terrorism in at least some circumstances. However, that relationship was a nuanced one and it was also one that was subject to change. The absence of a consistent pattern through time suggests that there is clearly a need for continuing analyses of the potential effect that the penetration of foreign influences into different regions of the world can have on terrorist activities or political violence in general. One of the most obvious findings is that different measures of globalisation can have quite different effects. The economic, social, and political indices had clearly varied patterns of association. Not all forms of globalisation will have the same impacts and the impacts can differ in different time periods.

In the 1970s and 1980s, it was clearly the countries with higher scores on the social index that had the larger number of terrorist events and casualties in a very consistent fashion, indicating that social contacts had been particularly disruptive in the region (see Table 6). This pattern carried over into the first years of the 1990s. In the last part of the 1990s and the early 21st century, however, social globalisation no longer had this effect. In the 1990s there were some indications that increased political globalisation was now associated with greater outbreaks of terrorist activity. There was only slight evidence that economic integration in the earlier years was linked to terrorism. In fact, in later years there were indications that countries less integrated into the global economy were somewhat more prone to terrorism. For the first decade of the 21st century, there was some evidence that states with greater political ties had begun to experience more terrorism (however, this finding surfaced only when Iraq was excluded from the analysis). What was generally true for the economic and social indices and for the overall indices was that by the latter part of this first decade of the 21st century those countries with lower levels of globalisation were the ones that were more prone to terrorism. It is, however, important to keep in mind that the overall index was not always a good measure to use since it reflected the differences between the three components. The social, economic, and political indices at times did have dissimilar results; thus, the overall index understated the impacts of specific globalisation measures on terrorism. Clearly, analyses of terrorism and globalisation do need to look at the individual components and not just at the overall index.

In terms of the years and variables used, there was no consistent pattern. The associations for the same years and for levels of terrorism in one, two, or three years later were generally similar. Associations were sometimes higher and more significant in the same year, and sometimes were higher or more significant in one of the following years. Thus, it would be prudent to include some measure of lagged effects in additional analyses since such impacts may be relevant. At least some aspects of globalisation had long term links with outbreaks of terrorism. The number of incidents, fatalities, and injuries all seemed to work equally well although one variable might be clearly linked with globalisation in one year while the other two were not.

Table 5
Correlations between Globalization and Terrorism in Middle East 2003-2010 without Iraq

Year and Index	time t			time t + 1			time t + 2			time t + 3		
	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries	Incidents	Fatalities	Injuries
2003												
Economic	.410*	.323	.376*	.175	.252	.348*	.394*	.264	.444*	.358*	-.133	.270
Social	.334*	.209	.315*	.064	.153	.293	.324*	.183	.322*	.216	-.252	.132
Political	-.043	.052	-.044	.174	.066	-.013	-.012	.244	.041	-.009	-.068	.044
Total	.399*	.311*	.363*	.203	.248	.348*	.389*	.352*	.442*	.313*	-.229	.238
2004												
Economic	.165	.226	.305	.353*	.227	.383*	.319	-.115	.240	.263	-.288	-.103
Social	.084	.171	.310*	.337*	.195	.338*	.229	-.251	.145	.229	-.223	.079
Political	.185	.056	-.023	.094	.314	.098	.016	-.041	.051	.087	.116	.204
Total	.214	.237	.326*	.434*	.376*	.449*	.311*	-.199	.231	.326*	-.123	.191
2005												
Economic	.349*	.250	.391*	.316	-.126	.238	.259	-.297	-.124	.322*	-.174	.253
Social	.345*	.188	.334*	.230	-.254	.166	.234	-.223	.091	.293	.073	.218
Political	.102	.320*	.107	.014	-.041	.050	.092	.122	.215	.053	.124	.140
Total	.424*	.372*	.439*	.300	-.198	.236	.316*	-.124	.188	.359*	.143	.283
2006												
Economic	.313	-.134	.225	.254	-.308	-.127	.318	-.170	.253	.219	[-.452]	.088
Social	.230	-.244	.165	.232	-.217	.089	.293	.075	.217	.182	[-.346]	.112
Political	-.015	-.071	.025	.064	.096	.196	.027	.105	.122	.024	.145	.118
Total	.288	-.207	.221	.302	-.134	.178	.349*	.137	.276	.248	-.246	.195
2007												
Economic	.214	[-.344]	-.199	.287	-.216	.217	.185	[-.518]	.031	.082	-.208	[-.389]
Social	.233	-.229	.086	.292	.070	.214	.184	[-.349]	.115	-.211	[-.444]	[-.495]
Political	-.087	-.136	-.074	-.118	-.133	-.097	-.121	-.125	-.084	-.214	-.092	-.081
Total	.212	-.264	.023	.258	-.002	-.144	.163	[-.394]	.075	-.130	[-.368]	[-.475]
2008												
Economic	.246	-.219	.175	.150	[-.506]	-.008	.095	-.177	[-.366]			
Social	.281	.063	.207	.175	[-.357]	.104	-.206	[-.433]	[-.488]			
Political	.047	-.143	-.071	.058	-.089	.092	-.168	-.106	-.068			
Total	.295	-.009	.147	.202	[-.397]	.110	-.117	[-.367]	[-.475]			
2009												
Economic	.135	[-.503]	.000	.030	-.244	[-.408]						
Social	.164	[-.355]	.097	-.210	[-.433]	[-.491]						
Political	.072	-.084	.104	-.140	-.080	-.044						
Total	.191	[-.390]	.110	-.139	[-.385]	[-.482]						
2010												
Economic	.010	-.269	[-.434]									
Social	-.195	[-.424]	[-.476]									
Political	-.160	-.105	-.064									
Total	-.145	[-.400]	[-.489]									

* $\alpha = .10$ $\alpha = .05$ $\alpha = .01$ Correlations in brackets are in other tail of distribution
The number of observations varies for the various indices which influences the level of significance for correlations at the same level.

There is greater variability, of course, in the number of casualties that can occur when there are only a limited number of attacks. The results from the above suggest that it is wise to include all three variables so as to not miss any associations that might be present. The number of injuries does remain probably the least useful since there is more missing data on this measure than on the number of fatalities.

The changes in relationships that occurred could result from a number of factors. It is possible that there were changes in the ways in which globalisation was taking place in the region but these types of variations are difficult if not impossible to test for. What is also possible is that there was a threshold level for globalisation effects. The countries in the first decades had been affected to varying degrees by globalisation, but as countries approached the threshold there were some states more affected, and these were the ones that now suffered more from terrorist violence. It is possible that eventually all or most of the countries in the region reached or passed the threshold of globalisation for which societies or economies can be sufficiently disrupted so as to drive individuals or groups that have been negatively affected to rely on tactics of terrorism. Under these circumstances, it was the countries that were now lagging behind in terms of globalisation that began to face the most difficulties. It is also possible that those Middle Eastern and North African countries that had become more integrated into the system had developed better adaptive mechanisms to the challenges that came with globalisation. This adaptation would then have been able to reduce the level of terrorist violence encountered.

A changing international environment and the types of issues that countries have faced could also have an impact on the different associations over the course of time. In the first decades, much of the violence involved Palestinians and Israelis. In the later years it involved Al Qaeda and other proponents of global jihad. Terrorism as a phenomenon was changing from the 1970s to the 1990s and into the twenty-first century. David Rapoport has suggested that there have been waves of terrorist violence.[50] While not all groups or incidents fit into particular waves,[51] he did identify broad patterns. Three of his waves came after World War II—first a nationalist wave, then a wave involving New Left groups in the later 1960s, and finally a religious wave beginning towards the end of the twentieth century. The ethnic and nationalist wave continued into the later years with groups like the Basque ETA, the Tamil Tigers in Sri Lanka, and the nationalist PLO (as opposed to the more religious Hamas). The New Left wave corresponds to the first decades of the present analysis. The critiques by the left of the failures and problems of global capitalism suggested that greater integration into the world economic system created significant problems for developing countries. Integration as noted at the beginning of this article can exacerbate issues of inequality among groups in all parts of the world. The results from the 1970s and 1980s would have been part of this wave, which may help to explain why social globalisation was so closely linked to outbreaks of terrorism (although it would have been anticipated by the left that economic effects would have been more important). The 1990s and 2000s, however, would have been part of the religious wave represented by al Qaeda and the global jihad movement, the Sikh uprising in the Punjab, Aum Shinrikyo in Japan, Boko Haram in Nigeria, and Hamas displacing the PLO in Gaza in the Palestinian struggle against Israel.

The earlier violence had elements of ethnicity and left wing aspirations and lacked religious elements. Given the different motivations of the groups using terrorism as a technique in different decades, it may not be so surprising that relationships changed, although it would have seemed likely that leftist ideological violence and perhaps nationalist violence would have had more links to economic globalisation rather than social globalisation and that religious terrorism would have been more affected by the penetration of outside ideas.

Table 6
Significant Correlations by Decade

Decade	<i>n</i>	Economic Index	Social Index	Political Index	Composite Index
1970s	120	16	69	6	75
1980s	120	8	114	0	12
1990s	120	4	21	18	7
2000s	114	25	0	0	5

In future years, events flowing out of the Arab Spring (which was in many ways a manifestation of the intrusion of foreign ideas and globalisation) and the pushback by groups opposed to change could influence the pattern of activities. The Arab Spring has provided opportunities for groups willing to use violence to gain strength in some countries.[52]

In the final analysis the results from the present study were very ambiguous, suggesting that both terrorism and globalisation are indeed very complex and the relationship between them is doubly so. Additional analyses are clearly necessary to determine the types and extent of links between globalisation and all types of political violence, including the possibility of such associations in other regions of the world. It would also be useful to look at how rapid the changes in globalisation levels have been, but the fact that the indices rely on multiple variables creates as noted before a smoothing function which inevitably means that for most countries there is a steady increase in the values, especially for the economic and social indices which are in many ways the most interesting ones, rather than any dramatic changes from year to year. A different type of statistical analysis will be necessary as a consequence to test for this possibility which should be an appropriate topic for future research. A number of other possible intervening or conditioning variables could have played a role in reinforcing the effects of globalisation or limiting these. These types of exogenous influences could change over time in terms of their interactions and therefore their impacts. Even so, there were still strong indications that in the 1970s, 1980s, and early part of the 1990s higher levels of some types of globalisation were positively linked to terrorism. However, in later years the patterns changed. There is a very good possibility that the changes reflected shifts in patterns of globalisation, but also shifts in the major sources of terrorism from ethnicity to ideology and religion, significant changes in the global context, and/or the responses to changing levels of globalisation. Ultimately, additional research is necessary to better determine what the links between globalisation and terrorism are. There are obviously temporal differences, and there could very well be regional differences as well.

The complexity of the relationship between globalisation and terrorism provides limited information that can be of use to governments seeking to prevent violence. The complexities suggest that great care has to be used to determine which types of global interactions are potentially dangerous since these can vary over time. Even if the linkages were clearer, there is little that governments can do about globalisation even if they desire to do so. The process appears to be virtually inevitable. To date the anti-globalisation movements, both violent and non-violent, that have appeared to contest the effects of globalisation have been too weak to effectively challenge the political elites who favor globalisation.[53] While the opposition is likely to continue, it is unlikely to be able to prevent globalisation, although it might modify some of the negative consequences that can come with that process.

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