



## Research article

## Disseminating knowledge: A discourse analysis of terrorism in TED talks

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## ARTICLE INFO

## Keywords:

TED Talks  
Terrorism  
Popularization discourse  
Discourse analysis  
Corpus linguistics

## ABSTRACT

This study aims to investigate the linguistic mechanism of disseminating knowledge about terrorism by professionals to laypersons in TED Talks. The study examines the interface between knowledge, meaning and social practices in terms of text and context when speakers cognitively reconceptualize terrorism discourse as a professional practice and maintain their stance over social issues. Drawing on a multidisciplinary approach of discourse analysis and corpus linguistics, the study sets out to analyse the discursive representation of terrorism in TED talks delivered between 2002 and 2019, focusing on explanation strategies of definition, description, denomination and metaphor. The results revealed that TED talks' discourse was a less popularised genre regarding terrorism, marked by specialised terms of traditional right discourse of military actions, and impersonal reference for private intentions of building up expert identity.

## 1. Introduction

No single event since WWII has made so profound an impact on world security as 9/11/2001 US attacks which provoked global efforts to encounter terrorist ideology and actions. Since then, discourse has been among the tools to counter-terrorism by explaining the cultural, social and personal factors fuelling and supporting terrorist actions (see e.g., Bhatia, 2009; Whittaker, 2001). The quest to explain/understand terrorism can help reduce the would-be-terrorists' willingness to join terrorism and can raise the opportunity cost outside terrorism, since "motive cannot be taken in isolation from opportunity" (Hoffman, 1999, p. 339). More importantly, explaining terrorism assists in policymaking and "crafting a new definition of the key concept of targeted violence" to ensure understanding of international threats (Department of Homeland Security, 2019, p. 2). This justifies endless analysis of discourse about terrorism, alongside state-backed organisations and media.

Information-sharing and individual's life experiences of professionals are reasonably convenient discourse practices to explain life-changing phenomena, such as terrorism (see e.g., Borum, 2004; Frey, 2010). TED Talks is rich in such practices and is devoted to providing robust short talks on almost all aspects of human life, such as terrorism. TED Talks platform presents thought-provoking speeches and optimal methods of explanation (Nicolle et al., 2014). The speeches provide contrasting ideas to guide the audience to understand socio-political factors (of terrorism) that affect our lives and society. This justifies the selection of TED talks the data for the analysis of terrorism.

This study, thus, shifts from the usual emphasis on political discourse in the analysis of terrorism (see e.g., Weinberg and Davis, 1989; Collins, 2002; Bhatia, 2009), and instead focuses on TED talks as a hybrid genre of popularization discourse (see e.g., Caliendo and Compagnone, 2014; Ludewig, 2017; Mattiello, 2017; Scotto Di Carlo, 2014). Popularization discourse seeks proximity with audiences to establish knowledge-based common ground between them and informants (Hyland, 2010). This is essential in the sense that informants can emphasise the source of information delivered to their audiences and achieve credibility, when discussing social issues (of terrorism). The investigation of popularization discourse and how knowledge is disseminated to non-experts has attracted many discourse analysts (see e.g., Calsamiglia and van Dijk, 2004; Hyland, 2010; 2018; Myers, 2003). Yet, the ways how knowledge about terrorism is actualised, recontextualised and constructed in TED talks has not been systematically analysed, which this study has set itself to achieve.

The multidimensionality approach applied in this study falls within the mantle of Discourse Analysis (DA) for the qualitative examination of the coherence and cohesion of the discursive representation of terrorism in TED talks. It is concerned with the popularization of terrorism through explanation strategies of definition, description, denomination and metaphor (Calsamiglia and van Dijk, 2004; Candel, 1994; Ciapuscio, 2003; Laurian, 1984). This includes how TED speakers manipulate ideologies and reformulate their socio-culturally shared knowledge about terrorism in a way with which laypersons can integrate their knowledge, since knowledge about a particular event has its own mental

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representations and schemata (Van Dijk and Kintsch, 1983). The study, also, applies Corpus Linguistic (CL) tools for data selection and representation for further qualitative analysis, using Sketch Engine (Kilgarriff et al., 2004) and its built-in tools of concordance, collocation and word sketch analyses.

## 2. Popularization function of TED talks

To frame the path of the study and to ground the ideas on the structure of TED talks and the function of popularization in theoretical constructs, a review on what TED talks are and what popularization function they achieve in the discourse is necessary.

TED Talks form a new “popularizing genre” (Compagnone 2014, p. 51) or “emergent genre” (Ludewig, 2017, p. 1) that is immensely ascribing value and validity to presented speeches. TED Talks started by a conference in Technology and design in 1984, and quickly became a platform sharing various individual experiences to mass audience around the world, with an estimated 1 billion viewers in November 2012. In their speeches, TEDsters recontextualize their scientific works and employ various discursive techniques to establish their stance and to build a close connection with the audience (see e.g., Ludewig, 2017; Tsai, 2015). They constantly make explanations of concepts and terminologies they introduce to disseminate knowledge and to inspire people to think differently. Therefore, TED talks' social implications have grown over years and the talks become a new resource for academic student presentations and teachers' TED-like lectures (see e.g., Reck, 2014), which make them worth analysis.

This discursive structure of TED talks offering public speeches on various fields of knowledge to live attendants, and globally to audiences through online videos matches the canonical form of popularization which is the delivery of knowledge to “large, diffuse, undifferentiated and passive” audience (Whitley, 1985, p. 4; see also Hyland, 2010). Popularization is a discursive semantic practice and “communicative events or genres that involve the transformation of specialized knowledge into ‘everyday’ or ‘lay’ knowledge” (Calsamiglia and van Dijk, 2004, p. 370-1; see also Anesa and Fage-Butler, 2015). The popularization function of TED talks is ensured by the fact that they provide the possibility to transmit scientific discoveries to general people, and to disseminate knowledge on crucial phenomena, such as terrorism. This, in turns, draws impact on the elite individuals to transform the need to be scientific speech into everyday language and to alter the lexical choices to demonstrate the audience's perception of manipulative messages. Furthermore, the vocal delivery helps speakers shape the rhetorical messages (Rosenberg and Hirschberg, 2009) and sharpens the “proximity” with the audience (Hyland 2010, p. 117) to strengthen the authorship of what they discuss and popularize their speeches, as it happens in TED talks.

Among the studies that reveal how TED talks are effective and prominent discourse genres are Caliendo and Compagnone (2014) and Tsai (2015). Caliendo and Compagnone have compared academic lectures to TED talks on the use of epistemic lexical verbs. They have found that, unlike academic lectures, TED speakers use the pronoun ‘we’ to refer to themselves (and co-speakers or team) and to exclude the audience. So, they can represent themselves as experts. Tsai (2015) has compared University professors with TED speakers on the features of their prosodic voice. She has found that TEDsters' pitch features are prominent and denser because they have less pause and juncture in intonation, which, in turn, leads to energetic speeches.

## 3. Terrorism discourse

There is a basic distinction between the phenomenon of terrorism per se (i.e., terrorist acts and actors, aims/targets, means, motives, strategies, finance and social impact), and terrorism discourse (i.e., the linguistic/semiotic means by which (counter)terrorism is communicated. The focus

of this study is principally, or exclusively, on the latter, but an operational definition of terrorism is necessary to determine the existence and scope of the phenomenon.

There is no agreed-upon definition of terrorism as a phenomenon, due to the elusive construct it has and the coverage of, for example, evil, crime and offence (see e.g., Bhatia, 2009). Terrorism is also attributed with political, social, economic, ideological or otherwise human discontent leading to violence (Whittaker, 2001). However, a definition that construes almost all nowadays terrorist acts is that terrorism is “a method of coercion that utilizes or threatens to utilize violence to spread fear and thereby attain political or ideological goals” (United Nations 2012, p. 1).

Within discourse, there is a broad distinction between discourses ‘by’ terrorists and terrorist organizations, e.g., terrorist proclamations, press and social media platforms (see e.g., Noonan, 2010; Lekea and Hatzidaki, 2014) and discourses ‘about’ terrorism, e.g., scholarly works on the phenomenon, discourses delivered by state/private institutions, politicians, think tanks, mass media, social media, and NGOs. This study is concerned with the latter, setting TED talks within a broader framework of discourses about terrorism and its linguistic/textual structures, social, interactional and informational functions and ideological aims and effects.

The disparity in the discourse about terrorism has widened the frontiers to the discourse analysts of modern terrorist dynamism, because this discourse has become a “metaphorical-cocktails of political jargon” (Mussolff, 1997, p. 230). Some politicians, for instance, maintain the western moral regime by discursively orienting others as violators of human rights, in a number of cases to empower superiority and legitimation over others (see e.g., Passini et al., 2009). A pioneering study in this regard is Bhatia's (2009) investigation of George W. Bush administration's discourse on terrorism. He has found that the discourse is a ground of conflicting ideologies and rich with opposite dichotomies of counterterrorism and terrorism, such as us vs. them, majority vs. minority, powerful vs. weak.

Counterterrorism discourse has also been diverse. For example, Lazar and Lazar (2004) have reported that “criminalisation [and] evilification” were a discourse strategy George Bush and Bill Clinton employ to outcast terrorists by discursively representing them as killers, criminals and murderers. Jackson (2007a), on the other hand, has found that the European Union has resorted to moral condemnation to denounce religiously inspired terrorist acts by describing them as evil, inhuman and barbaric. For this, a comprehensive framework of explanatory and popularization discourse analysis for the investigation of terrorism in TED discourse is needed.

## 4. Methodology

This section introduces the data of the study and the research methodology drawn upon to address my aims of examining how knowledge and meaning of terrorism are discursively explained in TED Talks. Following a brief detail of the data, the section steps in the discussion of the study's methodology and methodological procedure that goes back and forth between two levels of analysis; namely the quantitative selection and statistical measures of terror-related terms in the corpus, and the qualitative analysis of the linguistic patterns identified in the statistical measures.

### 4.1. Data

The data of this study are 105 video speeches (160K words) delivered at TED Talk from 2002 to 2019, under the heading ‘terrorism’. The speeches are 20–30 min long freely available at [www.ted.com](http://www.ted.com) and followed by text transcriptions. The transcripts were downloaded and saved as txts files for CL software processing. The files are then manually read and cleared from duplicates, cheers, applause, URLs and other textual noise to form the corpus of this study.

## 4.2. Multidisciplinary framework

A multidisciplinary approach was adopted for the analysis of textual and structural features of popularizing terrorism in the speeches. The analysis broadly falls within the mantle of DA, employing CL tools for data selection and preparation. The possibility of integration between CL and CDA is the triangulation potential of using multiple methods of analysis (see e.g., Baker et al., 2013; Baker et al., 2008; Gabrielatos and Duguid, 2015; Mulderrig, 2011; Xiao and McEnery, 2005).

The quantitative tools of CL provide the selection of corpus variables, in this study terror-related terms and concordance lines. They also sustain DA findings and extend further research questions. The corpus tool of word sketch analysis (Kilgarriff et al., 2004) was used, including built-in platforms of concordances, collocation and word sketch analyses. The selection criteria for the concordance lines for analysis were that of semantic relation (terror and terror-related words) that covered all and only terrorism data, frequency levels  $\geq$  ten cut-off points that have become 'standard' within CL analyses (Baker, 2006; McCarthy, 2006), and recency (2002–2019) when terrorism became a global issue following 9/11 US attacks. Following the uploading of the corpus txt files to Sketch Engine, the corpus was searched for terror-related words using the thesaurus features in the software, including *terror\** lemma and *terror\**-related lemmas. The concordance lines were then extracted and read by eye to avoid "corpus noise" (Gabrielatos, 2007, p. 31), i.e., concordances not referring to terrorism in context. A collocation analysis was then performed to group the concordances on the base of semantic relations. Word sketch analysis was also used to identify areas of meanings around terrorism by grouping collocations on the basis of grammatical relations. The statistical measure used in word sketch analysis is logDice. LogDice expresses collocation typicality based on the frequency of node (*terror\**)-collocate and the frequency of the collocation in the whole corpus (Kilgarriff et al., 2014). This measuring tool is not affected by corpus size and has more flexibility in extracting collocations in comparative and large corpora. More importantly, it can handle semantic similarity and distributional similarity of collocates, in comparison with other measuring tools, such as MI, T-score and log-likelihood (see e.g., Curran, 2004).

For the qualitative analysis, the DA tackles levels above mere linguistic items identified through CL tools. It analyses the semantic, pragmatic and syntactic patterning in terrorism discourse at the higher level of text structure (see e.g., Dubey and Keller, 2005; Flowerdew, 2008). The focus of DA in this study was on the ways terrorism was popularized and transferred from specialized knowledge to everyday language to enable ordinary people to understand scientific knowledge from experts. This transformation/popularization was investigated through the analysis of explanation strategies identified by Calsamiglia and van Dijk (2004), with the focus on those significantly emerged in the corpus, namely definition, description, denominations and metaphors. Also, attention was given to the emergence of potential sub-explanatory strategies and structures (see also Candel, 1994; Ciapuscio, 2003; Laurian, 1984). Aspects of textual and structural features were coded manually, alongside coding the concordance lines for every explanation strategy for analysis.

## 5. Corpus analysis and discussion

### 5.1. Quantitative salience of linguistic patterns

To select all occurrences of terrorism, the corpus was searched for the lemma *terror\** and its set of derivatives (*terrorism*, *terrorist*, *terrorize*), and a lexical set of lemmas semantically related to terrorism and identified through the Sketch Engine's thesaurus tool, namely *war*, *violence*, *threat*. They all occurred  $n = 403$  times ( $n = 226$  for *terror\** lemma and 177 for semantically related lemmas) (see Figure 1). Other lexical items that refer to terrorism in context, such as *massacre*, *homicide*, *shooting* were excluded as they did not exhibit frequency levels  $\geq 10$ . Throughout this

study, the term terrorism will, henceforth, refer to the occurrence of *terror*, *terrorism*, *terrorist*, *terrorize*, *war*, *violence*, *threat* in the corpus.

The concordance lines of terrorism were, then, extracted, because the focus on longer threads beyond mere words provided deeper insights into the interactional dynamics of terrorism discourse. Of the  $n = 403$  occurrences terrorism,  $n = 244$  concordances realized cases of definitions and descriptions frequently in the form of periphrases. They were also marked by emphasising adjectives and adverbs, showing the innovative function of TEDsters. In describing terrorism, TEDsters boasted a frequent use of modifying 'of-construction' that highlighted the degree of speakers' involvement in the representation of terrorism.  $N = 123$  occurrences of terrorism realized cases of denomination notable for common terms and more distal personal pronouns. Finally,  $n = 36$  occurrences realized cases of metaphoric explanation of terrorism as an animate being posing a real threat to international security.  $N = 27$  of the metaphoric explanations overlap with definition and description, while the  $n = 11$  others with denomination.

### 5.2. Explanation strategies

#### 5.2.1. Definition and description of terrorism

The analysis of the explanation strategies used to popularize terrorism showed that TEDsters used definition and descriptions, where "definitions were employed to explain unknown words, and descriptions to explain unknown things" (Calsamiglia and van Dijk, 2004, p. 379). The two strategies had the major frequency of occurrence in the corpus ( $n = 244$ ), in comparison with denomination and metaphor. The analysis of the two strategies provided insights into the connection between discourse and knowledge (see e.g., Blum-Kulka, 2002), showing TEDsters' conversational ability to clarify the lack of understanding by listeners. Manually reading the concordance lines showed that definitions consisted of the term terrorism (including the lemma *terror\** and lemmas semantically related to terrorism) as a noun phrase head in  $n = 183$  of the  $n = 244$  occurrences, followed by a definition/description often introduced by the relational verb (*be*). More importantly, in  $n = 213$  of the  $n = 244$  occurrences (87.29%), TEDsters resorted to either inexplicit predicate or specialised terms to define/describe terrorism, which was a less popularizing strategy and more of a subjective value judgement:

- (1) Terrorism is how you perceive it, because perception leads to your response to it.
- (2) Terrorism is something that provokes an emotional response that allows people to rationalize authorizing.
- (3) Terrorism has always been what we in the intelligence world would call a cover for action.
- (4) Terror is, I mean, it's a form of mental bug.

TEDsters were supposed to provide a layperson-oriented explication of the meaning of terrorism. However, in example 1, the meaning of terrorism is uncertain and inexplicit. It is left to the perception and knowledge of the audience ... *Terrorism is how you perceive it...*, which means that terrorism is as distinctive as people's perceptions are. Likely, in example 2, terrorism is made part of several unknown emotional responses to authorizations... *Terrorism is something that provokes an emotional response...* There can be entirely different reactions that display positive or negative emotions for pro-terrorism or counterterrorism viewpoints.

In examples 3, the specialised term *cover action* is employed to define terrorism. Cover action is used in the US National Security Acts to refer to a hidden activity of the government to influence political, military and economic conditions abroad (Johnson and Wirtz, 2008). This term might be unknown to most of the audience who, in turns, fail to understand terrorism as a cover action/hidden activity. In example 4, again, the specialised term *mental bug* is used to define terrorism. This term refers to negative psychological conditions (Goddard and Shazo, 2012), and the audience's knowledge of this meaning is relatively unanticipated.

That's us finding intelligence on terrorist activities and interdicting them through one way engaged in doing or supporting terrorist activity, or someone who's violating international law which forms a breeding ground for terrorist activity. So I think it's very serious. I think it's terrorism I'm going to show you how terrorism actually interacts with our daily life. 15 years ago that this mechanism is in part how terrorism actually works to frighten us, and is there some experience to fight back against terrorism, against the bigotry. I do it for the victims of terrorism more detonator, maybe no more terrorist, all with the press of a button from a thousand probability events. If, for example, terrorism almost never happens, it's really hard to judge to have a war on piracy like a war on terrorism and beat it, you're wrong. What we're trying to make the problems of security and terrorism and, equally, the problem of human rights and here today. 01:04 We are often terrified and fascinated by the power hackers now have. Problems: counterterrorism, nuclear terrorism, and health care and diagnosing and treating terrorism they might ask what causes terror and how can we stop people from being terrified, and had many names from criminals to terrorists, and I cannot justify their illegal means, but the it to write a story on Al-Qaeda or terrorism. And I just wanted to share with you: there's one terrorist, sort of a health and safety terrorist, and I — (Laughter) — I've got to count 3, 2, 1, and

Figure 1. Concordance lines of terror\*.

Definitions and descriptions with explicit representation of terrorism were infrequent, scoring  $n = 31$  (12.71%) occurrences in the corpus, consider example 5:

- (5) Terrorism is basically taking an innocent stranger and treating them as an enemy whom you kill in order to create fear.

In example 5, everyday words are used to define terrorism as the taking of the life of innocent people. Audiences normally know what this action means. The use of common words breaks knowledge barriers between speakers and listeners (see e.g., Scotto Di Carlo, 2014) and, at the same time, supports the claim that formal definitions are “part of an academic culture” (Kurland and Snow 1997, 603), where they form an academic skill to explain social issues.

In an explanatory strategy of definition, TEDsters referred to the types of terrorism in  $n = 13$  occurrences, including, for example, types of terrorist acts (example 6), tools for attack (example 7) and targeted areas (example 8):

- (6) Terrorism is the iconic example, it includes things like human traffickers and drug traffickers.  
 (7) Single nuclear incident or bioterrorism act or something like that would change those numbers.  
 (8) In the last 30 or 40 years, about 500 Americans have died from terrorism.

TEDsters used the copular verb *be* in most of the definitions ( $n = 176$ ), as in example 1, 2, 4, 5, 6, establishing a “semantic equivalence” between subject and predicate (Gotti, 2011, p. 185). The use of the relational verb process has the ideological effect of establishing the identity of the subject (terrorism) by linking it to a definitive predicate/value (Almaged, 2021). This allows the speaker to draw focus on the nature of the issue and its description, i.e. ‘what terrorism is’, rather than a focus on emergency procedures or political measures against the issue, i.e., ‘what is done to terrorism.’ What was reported in the analysis of the verb processes was that TEDsters did not tend to suggest/engage in emergency or political measures to encounter terrorism, but to deliver an explanation of terrorism to the public.

Quite commonly, TEDsters adapted their jargon to reformulate the knowledge about terrorism by emphasising definitions through the use of lexical means, such as adverbs ( $n = 35$ ), e.g., *actually* and *basically*, where

*actually* is to emphasize facts and *basically* to emphasize importance (<https://www.oxfordlearnersdictionaries.com>):

- (9) Terrorism actually works to frighten us, and is there some way that we could counteract that?

Using the adverb *actually* in example 9 is a lexical means to place certain focus on terrorist acts and to make them extra salient (see e.g., Torrence, 2013). This goes in line with the information structure of placing terrorism in the subject (theme) position to explain what terrorism is (see e.g., Frey 2010). There was also the use of emphasising adjectives ( $n = 29$ ), such as *real* and *certain*:

- (10) I mean, this is a society that has learned - and there are others too - that has learned to live with a certain amount of terrorism and not be quite as upset by it.

The use of emphasising adjectives is a rhetorical tactic to strengthen the discursive presence of speakers (TEDsters) (see e.g., DeLancey, 1997), emphasising what terrorism is from the point of view of experts/TEDsters and portraying alarming threats to the audience.

In describing terrorism, TEDsters notably boasted a frequent use of modifying ‘of-construction’ in  $n = 87$  occurrences. The discursive construction of explanatory descriptions revealed various categories of semantic relationships that characterized terrorism as a modifier of other noun phrases in of-constructions. This provided more detail on terrorism, namely participant ( $n = 39$ ), location ( $n = 28$ ) and quantity of terrorism ( $n = 20$ ) (see Table 1).

In participant category, TEDsters used terrorism to modify the supporters of the issue as sponsors and the recipients as victims. Shedding lights on the victims of terrorism enables their voices to be heard, and the UN has been hailing efforts to support those who were targets of terrorist attacks and those who lost their relatives (United Nations, 2015).

- (11) I do it for the victims of terrorism and their loved ones, for the terrible pain and loss that terrorism has forced upon their lives.

TEDsters, also, referred to the location of terrorism as *beyond national borders*, rendering it a border-free phenomenon. The world suffered the spread of fanatic ideologies across the globe, and felt the pain of the

**Table 1.** Categories of description.

Categories of description	N=	Scope	Examples
Participant	34	sponsor, victim	For the victims of terrorism, I will speak out against these senseless acts
Location	23	global, world	His idea of jihad was a global war of terrorism
Quantity	17	growth, amount	These were money taken to fund the growth of terrorism

attacks where more than 42,000 foreigners from 120 countries joined terrorist groups in Iraq and Syria in 2011 (RAN Manual, 2017).

- (12) His idea of jihad was a global war of terror, primarily targeted at the far enemy, at the crusaders from the West.

Elsewhere, TEDsters described the quantity of terror – the intensity of the attacks carried out by terrorists around the world, as growing over the years:

- (13) I noted that since the late 1960s a growing number of these dollars [...] were money taken out to fund the growth of terrorism.

Definition and descriptions showed an innovative and interpretive function by TEDsters, providing details on the issues and areas of threats. However, using inexplicit definitions and specialised terms might not achieve the popularization function in the speeches. This could prevent the audience from actively engage in the discussion and understanding of the meaning/scope of terrorism.

### 5.2.2. Denomination and metaphor

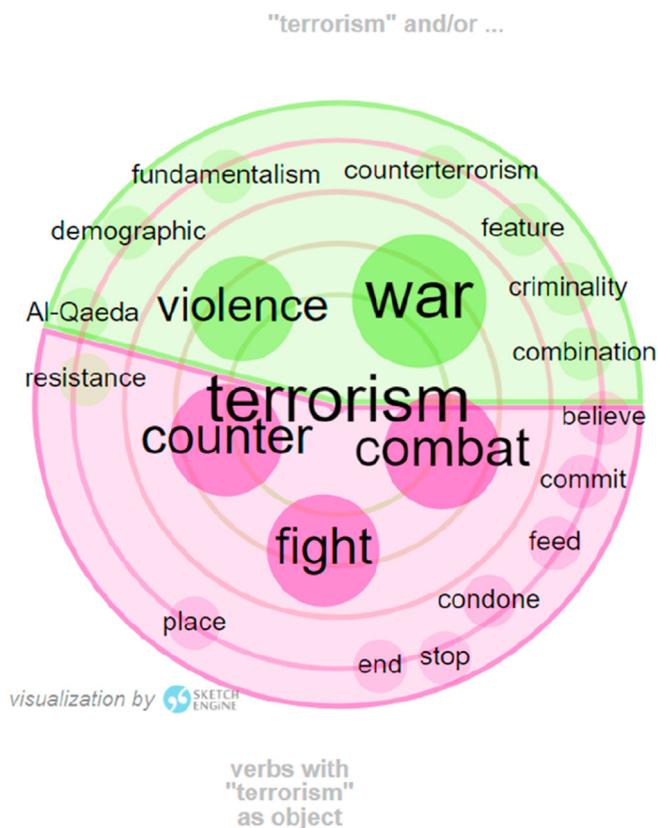
Denomination is to provide a label, title or name, in this study for terror-related issues, which is an important aspect of explanation (Cal-samiglia and van Dijk, 2004). The analysis denomination in the corpus was two-fold. Firstly, it conducted a collocation and word sketch analysis of terrorism (including the lemma terror\* and its set of derivatives (terrorism, terrorist, terrorize) and lemmas semantically related to terrorism, (war, violence, threat)). In this part of analysis, n = 123 examples of denomination occurred with terms co-occurring/replacing terrorism in the corpus. The notable finding in this analysis was the metaphorical use of collocates of terrorism, saliently *war* and *violence*. Secondly, part of denomination was the authoritative reference in naming the terror-related objects, which is mainly recognized through impersonal forms. Of the total n = 403 occurrences of terrorism, impersonal forms were used in n = 337 occurrences, where TEDsters distanced themselves from being actively involved in the explanation of terrorism.

The word sketch analysis, among other functions (see Kilgarriff et al., 2004), could identify lexical items around areas of meaning and clustering (see also Toft, 2014). This analysis characterised collocates that had ‘and/or’ relation with terrorism, grouped on the basis of grammatical relations (see Figure 2).

As illustrated in the upper hemisphere of Figure 2, the significantly frequent ‘and/or’ collocates of terrorism, as indicated by their LogRatio, were *war* and *violence*, with *war* being statistically significant and visually denser than other collocates, e.g., *violence*, *Al-Qaeda*, *criminality*:

- (14) We know that the reality we experience day today is a world without borders, a world of [...] terrorism and war without borders.
- (15) The values of democracy and the freedom of choice that is sweeping the Middle East at this moment in time is the best opportunity for the world, for the West and the East, to see stability and to see security [...] rather than the images of violence and terrorism.

While examples 14, 15 speak for themselves, the textual selection and collocation of *security*, *violence*, *war* and *borders* with terrorism can shape



**Figure 2.** ‘and/or’ and ‘verbs with terrorism as object’ collocates of terrorism.

a battlefield. These lexical selections codify an ideological representation of terrorism as a military practice (see e.g., Lemke, 1995), and, at the same time, construct power difference between the audience and TEDsters as political actors (see e.g., Fairclough, 2001). This does not mean that terrorism is not a possible military practice, but for TEDsters to popularize the issue to laypersons is politically biased. Similar findings have been reported in the analysis of discourse on war and terrorism in the US political speeches by Michael’s (2013) *The Discourse Trap and the US Military*. She finds that speakers can impose their discursive domination on the terminology to serve political needs and to direct military effort. This focus on war and military ideology in terrorism discourse, however, is not novel. It has also been reported in the representation of terrorism in political discourse (see e.g., Jackson, 2007b), academic discourse (see e.g., Quartermaine, 2014) and media (see e.g., Nickerson, 2019).

War-terrorism collocation occurred n = 36 times in the corpus. This ideological level of war metaphors (see e.g., Achugar, 2008; Koller, 2004; Spencer, 2010) promotes particular beliefs and explains certain actions through common and/or concrete objects (Lakoff and Johnson, 1980). In this study, TEDsters employed challenging and military actions to deal with terrorism as war. This was evident in “verbs with terrorism as an object” collocates in the lower hemisphere of Figure 2, e.g., *fight*, *counter*, *combat*. TEDsters promoted and personified terrorism as an animate object or a living organism which we need to *fight*, rather than an abstract reference to an object of aggression:

- (16) We think that one of the best ways to fight poverty and to fight terrorism is to educate girls and to bring women into the formal labor force.

While metaphor is a functioning strategy in popularization discourse and a process to simplify ideas to a less informed audience (see e.g., Calsamiglia and van Dijk, 2004; Scotto Di Carlo, 2014), the metaphorical recontextualisation of terrorism as war makes the issue less popularized. War metaphor confuses the audience of the indirect approval of terrorism side effect of killing innocent people, when it is compared to that of war. War metaphor simplifies terrorism and makes it manageable in the frame of defeating and winning over an enemy, which is not the case. While, indeed, both are a breakdown of humanity, they are not similar. Terrorism considers killing innocent people, but wars encounter this collateral damage as a side effect, not an intention (see e.g., Asad, 2010; McMahan 2009). And, since terrorist acts are defined “by analogy to what is prohibited in wartime” (Sassoli, 2006, p. 959), comparing terrorism to war is an indirect overlooking/approval to the former's direct intention of killing innocent people as a side effect. This metaphorical comparison, then, makes it more complicated for the audience to perceive war side effects and terrorism intentions as identical issues and consequences. Also, TEDsters ideological representation of terrorism as war was quite similar to media handling of terrorist actions. Similar findings are presented in Spencer's (2010) *The Tabloid Terrorist*. In his analysis of the German *Bild* and British *The Sun* tabloids, he finds that “terrorism is war” metaphor is prominent in media and that the recontextualization of terrorism as war and calling for military measures is a threat to economy (Spencer 2010, p. 107–134). For the target community, terrorist acts reduce foreign investment and normal businesses. Also, areas that need fund and security, once provided, require higher compensation in the context of higher risk. Therefore, fighting terrorism imposes a high economic cost with more personnel and military troops to secure businesses. This has been highlighted in the corpus when TEDsters compared terrorism with business (n = 13):

- (17) Contrary to what many people believe, terrorism is actually a very expensive business. I'll give you an idea. In the 1970s, the turnover of the Red Brigades on a yearly basis was seven million dollars. This is roughly between 100 and 150 million, today.

Deterring terrorism is expensive because the link between terrorism and business (economy) forms the construction of terrorist groups and the target community. The cost of this construction is measured by the lives lost and economic value of the destroyed properties. One of the strategies to deter terrorism is to “raise the opportunity cost – rather than the material cost – for terrorists” (Frey, 2010, p. 2). Raising the cost outside terrorism includes the benefit the would-be terrorists gain when not engaging in terrorism, which, in turns, reduces terrorists' willingness to commit violent actions. Crucially, as this evil business is fuelled by poverty and social exclusion (see Lorenzo-Dus and Almaged, 2020), providing competing opportunities outside terrorism motivates terrorist's response to turn to a positive world and alleviates their conditions by peaceful income.

The other discursive construction of denomination in the corpus was the use of more distal (3rd person) forms in popularising terrorism, featuring out an impersonal authorial reference of terrorism explanation. This discursive strategy enabled TEDsters to be discursively invisible in the speeches, in contrast to the use of the first-person pronouns as a polarised construction to characterise the role of the speakers in the speeches (see e.g., Hyland, 2002). Of the n = 403 concordances of terrorism, n = 337 impersonal forms were used to refer to terrorism (see Table 2 for examples).

A notable function of impersonal references is to generalise the speech and distance the speaker in public language (see e.g., Simpson, 1993). This provides TEDsters with the possibility to “signal credibility, reliability, objectivity, and ultimately authority to their readers and the

**Table 2.** Examples of (im)personal forms in the corpus.

Impersonal (distal) forms	Personal (proximal) forms
People are scared about terrorists	I talk against violence, against terrorism
They were concerned about terrorism	We face the scourge of terrorism
They risk their lives to speak up and confront terrorists	I think terrorism is still number one
it will lead to anger, religious and sectarian violence	We're all victims of terrorism
The first one is the state sponsor of terrorism	We see it as terrorism versus democracy

research community” (Rundbald, 2007, p. 251). Additionally, speakers distancing from what they discuss empowers the audience to engage themselves in the discussion of the issues and to involve in the decision-making process, in comparison with proximal (1<sup>st</sup> person) forms (cf. Allen, 2006; Bramley, 2001). The use of distal personal pronouns is not limited to TED talks. Lorenzo-Dus and Almaged (2020), for example, report that political speeches are rich in more distal personal pronouns and political elites abstain from using proximal forms to provide more objective point of view and to distance themselves from focus. This finding, however, does not comply with academic discourse. The use of proximal personal forms is a central discursive feature of academic discourse because it contributes to speakers' construction of texts, promotion of identity competence and acceptance of ideas (see e.g., Hyland, 2002; Tang and John, 1999). Therefore, once self-mention is underused and speakers abstain from this discursive means (to popularize terrorism), the audiences will miss the rhetorical effect of the speech and ego-oppose the speakers' viewpoint (Hart, 2014).

## 6. Conclusion

The current study aimed to investigate the discursive strategies of explanation employed by TEDsters to popularize terrorism to laypeople in a small TED Talks corpus of 105 speeches delivered between 2002 and 2019. The structural features and functional ideology of TED talks determine and present the talks a distinctive popularizing genre about terrorism, marked by specialised terms and inexplicit representations, and having discursive features of political speeches. The study shows how popularizing terrorism in TED talks substantially differs from the traditional popularization which is the delivery of simplified knowledge to lay audience (see e.g., Caliendo and Compagnone, 2014; Ludewig, 2017).

The contribution of this study is to uncover the strategies employed in the popularization of terrorism, namely definition, description, denomination and metaphor. In explanatory definitions and descriptions, terrorism has been explained through specialised terms, such as cover action and mental bug, and/or inexplicit expressions, such as audience's perception and emotion. TEDsters, also, achieve their ‘private intentions’ to identify themselves as experts and professionals (see e.g., Bhatia, 2012), rather than academics and informants for mass audiences (cf. Reck, 2014). However, the use of emphasising definition techniques and detailed description results in more innovative and informative function by TEDsters (see also Gotti, 2008).

In explanatory denomination, the lexical selections of war-terrorism collocation codify an ideological representation of terrorism as a military practice – war (see e.g., Lemke, 1995). The metaphoric comparison between terrorism and war makes terrorism less explicit and puts TEDsters in parallel with the political right, calling for military actions and armed forces (see e.g., Achugar, 2008). War-metaphor ideology, also, maintains power difference between TEDsters and the audience, especially by the use of challenging verbs, e.g., *fight*, *combat* and *counter*. This,

also, shows an ideological affinity between mass media and TED talks in mitigating terrorism to simple winning over an enemy (see e.g., Spencer, 2010).

Notably, TEDsters employ the most impersonal and idealised form of speaking by adopting a bird-eye view in explaining terrorism (see e.g., Simpson, 1993). They appear passive speakers – inactively involved in the discussion using impersonal distal forms (cf. Scotto Di Carlo, 2014). The impersonal authoritative references, together with the use of war metaphor, highlights political communicative purpose of TED talks (cf. Compagnone, 2015) and make them a less likely academic-style genre, where self-mention contributes to speakers' construction of texts and acceptance of ideas.

## Declarations

### Author contribution statement

S. Almaged: Conceived and designed the analysis; Analyzed and interpreted the data; Contributed analysis tools or data; Wrote the paper.

### Funding statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Data availability statement

Data included in article/supplementary material/referenced in article.

### Declaration of interests statement

The authors declare no conflict of interest.

### Additional information

No additional information is available for this paper.

## References

- Achugar, M., 2008. *What We Remember: the Construction of Memory in Military Discourse*. John Benjamins Publishing Company, Amsterdam.
- Allen, W., 2006. Australian political discourse: pronominal choice in campaign speeches. In: *Selected Papers from the 2006 Conference of the Australian Linguistic Society*. [http://espace.library.uq.edu.au/eserv/UQ:12794/ALLEN\\_W\\_ALS2006.pdf](http://espace.library.uq.edu.au/eserv/UQ:12794/ALLEN_W_ALS2006.pdf).
- Almaged, S., 2021. forthcoming. The discursive formulation of Brexit: decision, opportunity and needful agreement. *Discourse interact*. 14 (1).
- Anesa, P., Fage-Butler, A., 2015. Popularizing biomedical information on an online health forum. *Iberica* 29, 105–128.
- Asad, T., 2010. Thinking about terrorism and just war. *Camb. Rev. Int. Aff.* 23 (1), 3–24.
- Baker, P., 2006. *Using Corpora in Discourse Analysis*. Continuum, London.
- Baker, P., Gabrielatos, C., McEnery, T., 2013. *Discourse Analysis and media Attitudes: the Representation of Islam in the British Press*. Cambridge University Press, Cambridge.
- Baker, P., Gabrielatos, C., KhosraviNik, M., Krzyzanowski, M., McEnery, T., Wodak, R., 2008. A useful methodological synergy? Combining critical discourse analysis and corpus linguistics to examine discourses of refugees and asylum seekers in the UK press. *Discourse Soc.* 19, 273–306.
- Bhatia, A., 2009. The discourses of terrorism. *J. Pragmat.* 41, 279–289.
- Bhatia, V., 2012. Critical reflections on genre analysis. *Iberica* 24, 17–28.
- Blum-Kulka, S., 2002. Do you believe that lot's wife is blocking the road (to jericho)?: Co-constructing theories about the world with adults. In: Blum-Kulka, S., Snow, C. (Eds.), *Talking to Adults: the Contribution of Multiparty Discourse to Language Acquisition*. Lawrence Erlbaum, Mahwah, NJ, pp. 85–115.
- Borum, R., 2004. *Psychology of Terrorism*. University of South Florida, Florida.
- Bramley, N., 2001. *Pronouns of Politics: the Use of Pronouns in the Construction of 'self' and 'other' in Political Interviews*. PhD Diss. Australian National University.
- Caliendo, G., Compagnone, A., 2014. Expressing epistemic stance in university lectures and TED talks: a contrastive corpus-based analysis. *Lingue e Linguaggi* 11, 105–122.
- Calsamiglia, H., van Dijk, T.A., 2004. Popularization discourse and knowledge about the genome. *Discourse Soc.* 15 (4), 369–389.
- Candel, D., 1994. Le discours définitoire: variations discursives chez les scientifiques. In: Moirand, S., Bouacha, A., Beacco, J. (Eds.), *Parcours linguistiques de discours spécialisés: Colloque en Sorbonne*. Bern, Peter Lang, pp. 33–54.
- Ciapuscio, G., 2003. Formulation and reformulation procedures in verbal interactions between experts and (semi) laypersons. *Discourse Stud.* 5 (2), 207–233.
- Collins, J., 2002. Terrorism. In: *Collateral Language: A User's Guide to America's New War*. John Collins and Ross Glover. New York University Press, New York, pp. 155–173.
- Compagnone, A., 2014. Knowledge dissemination and environmentalism: exploring the language of TED Talks. In: Sciarrino, S., Chiavetta, E., Williams, C. (Eds.), *Popularisation and the Media*. Edipuglia, Bari, pp. 7–25.
- Compagnone, A., 2015. The reconceptualization of academic discourse as a professional practice in the digital age: a critical genre analysis of TED talks. *J. Lang. Commun. Bus.* 54, 48–69.
- Curran, J., 2004. *From Distributional to Semantic Similarity*. PhD thesis. University of Edinburgh.
- DeLancey, S., 1997. Mirativity: the grammatical marking of unexpected information. *Linguist. Typol.* 1, 33–52.
- Department of Homeland Security, 2019. *Privacy Office Annual Report to Congress*. Department of Homeland Security, United States. <https://www.hsdl.org/?view&did=843626>.
- Dubey, A., Keller, F., 2005. A probabilistic corpus-based model of syntactic parallelism. *Cognition* 109 (3), 326–344.
- Fairclough, N., 2001. *Language and Power*. Longman, London.
- Flowerdew, L., 2008. *Corpus-based Analyses of the Problem–Solution Pattern*. John Benjamins Publishing Company, Amsterdam.
- Frey, W., 2010. A-Movement and conventional implicatures: about the grammatical encoding of emphasis in German. *Lingua* 120, 1416–1435.
- Gabrielatos, C., 2007. Selecting query terms to build a specialised corpus from a restricted access database. *ICAME J.* 31, 5–43.
- Gabrielatos, C., Duguid, A., 2015. *Corpus linguistics and CDA: revisiting the notion of synergy*. In: *Paper Presented at Corpus Linguistics in the South, Oxford, United Kingdom*. <https://www.brookes.ac.uk/hpc/about/seminar-series/language-and-discourse/>.
- Goddard, J., Shazo, R., 2012. Psychological effects of bed bug attacks. *Am. J. Med.* 25 (1), 1011–1104.
- Gotti, M., 2008. *Investigating Specialised Discourse*. Peter Long, New York.
- Gotti, M., 2011. *Investigating Specialized Discourse*. Peter Lang, Berlin.
- Hart, C., 2014. *Discourse, Grammar and Ideology*. Bloomsbury, London.
- Hoffman, B., 1999. The mind of the terrorist: perspectives from social psychology. *Psychiatr. Ann.* 29 (6), 337–340.
- Hyland, K., 2002. Authority and invisibility: authorial identity in academic writing. *J. Pragmat.* 34, 1091–1112.
- Hyland, K., 2010. Constructing proximity: relating to readers in popular and Professional science. *J. Engl. Acad. Purp.* 9, 116–127.
- Hyland, K., 2018. *The Essential Hyland: Studies in Applied Linguistics*. Bloomsburg, London.
- Jackson, R., 2007a. Constructing enemies: 'Islamic Terrorism' in political and academic discourse. *Gov. Oppos.* 42 (3), 394–426.
- Jackson, R., 2007b. An analysis of EU counterterrorism discourse post-September 11. *Camb. Rev. Int. Aff.* 20 (2), 233–247.
- Johnson, L., Wirtz, J., 2008. *Intelligence and National Security*. Oxford University Press, New York.
- Kilgarriff, A., Rychly, P., Smrz, P., Tugwell, D., 2004. The sketch engine. In: *Proceeding from EURALEX: 105–16*. Lorient: France.
- Kilgarriff, A., Baisa, V., Bušta, J., Jakubček, M., Kovář, V., Michelfeit, J., Rychlý, P., Suchomel, V., 2014. The Sketch Engine: ten years on. *Lexicography* 1 (1), 7–36.
- Koller, V., 2004. Businesswomen and War metaphors: "Possessive jealous and pugnacious"? *J. Sociolinguistics* 8 (1), 3–22.
- Kurland, B., Snow, C., 1997. Longitudinal measurement of growth in definitional skill. *J. Child Lang.* 24 (3), 603–625.
- Lakoff, G., Johnson, M., 1980. *Metaphors We Live by*. University of Chicago Press, Chicago, IL.
- Laurian, A., 1984. *Vulgarisation scientifique: formulation, reformulation, traduction*. Lang. Fr. 64, 109–125.
- Lazar, A., Lazar, M., 2004. The discourse of the new world order: "out-casting" the double face of threat. *Discourse Soc.* 15 (2-3), 223–242.
- Lekea, I., Hatzidaki, O., 2014. Who gets the blame for the collateral victim? In: Lekea, Ioanne (Ed.), *17N's Philosophy of Terror: an Analysis of the 17 November Revolutionary Organization*. Praeger, California, pp. 95–190.
- Lemke, J., 1995. *Textual Politics: Discourse and Social Dynamics*. Taylor & Francis, London.
- Lorenzo-Dus, N., Almaged, S., 2020. Poverty and social exclusion in Britain: a corpus-assisted discourse study of labour and conservative party leaders' speeches, 1900–2014. In: Gomez-Jimenez, E., Toolan, M. (Eds.), *The Discursive Construction of Economic Inequality*. Bloomsbury, London, pp. 38–62.
- Ludewig, J., 2017. TED talks as an emergent genre. *Comp. Lit. Cult.* 19 (1), 1–10.
- Mattiello, Elisa, 2017. The popularisation of science via TED Talks. *Int. J. Lang. Stud.* 11 (4), 77–106.
- McCarthy, M., 2006. *Explorations in Corpus Linguistics*. Cambridge University Press, Cambridge.
- McMahan, J., 2009. War, terrorism, and 'the war on terror'. In: Miller, C. (Ed.), *War on Terror: the Oxford Amnesty Lectures 2006*. Manchester University Press, Manchester, pp. 33–52.
- Michaels, J., 2013. *The Discourse Trap and the US Military from the War on Terror to the Surge*. Palgrave Macmillan, New York.
- Mulderrig, J., 2011. The grammar of governance. *Crit. Discourse Stud.* 8, 45–68.

- Mussolff, A., 1997. International metaphors: bridges or walls in international communication? In: Debatin, P., Jackson, T., Steuer, D. (Eds.), *Metaphor and Rational Discourse*. Niemeyer, Germany, pp. 15–30.
- Myers, G., 2003. Discourse studies of scientific popularization: questioning the boundaries. *Discourse Stud.* 5 (2), 265–279.
- Nickerson, C., 2019. Media portrayal of terrorism and Muslims: a content analysis of Turkey and France. *Crime Law Soc. Change* 72, 547–567.
- Nicolle, E., Britton, E., Janakiram, P., Robichaud, P., 2014. Using TED talks to teach social determinants of health. Maximize the message with a modern medium. *Can. Fam. Physician* 60, 777–788.
- Noonan, J., 2010. Fundamentalist foundations of terrorist practice: the political logic of life-sacrifice. In: Brecher, Bob, Devenney, Mark, Winter, Aaron (Eds.), *Discourses and Practices of Terrorism: Interrogating Terror*. Routledge, London, pp. 97–112.
- Passini, S., Palareti, L., Battistelli, P., 2009. We vs. Them: terrorism in an intergroup perspective. *Rev. Int. Psychol. Soc.* 22 (3), 35–64.
- Quartermaine, A., 2014. Discussing terrorism: a pupil-inspired guide to UK counter-terrorism policy implementation in religious education classrooms in England. *Br. J. Relig. Educ.* 38, 1–17.
- RAN Manual, 2017. Responses to Returnees: Foreign Terrorist Fighters and Their Families. Radicalization Awareness Network, Amsterdam.
- Reck, C., 2014. Students Share Ideas Just like Experts at TED Talks. *Tucson News Now*. <http://www.tucsonnewsnow.com/story/25385296/students-share-ideas-just-like-experts-at-ted-talks>.
- Rosenberg, A., Hirschberg, J., 2009. Charisma perception from text and speech. *Speech Commun.* 51 (7), 640–655.
- Rundbald, G., 2007. Impersonal, general, and social: the use of metonymy versus passive voice in medical discourse. *Writ. Commun.* 24 (3), 250–277.
- Sassoli, M., 2006. Terrorism and war. *J. Int. Crim. Justice* 4 (5), 959–981.
- Scotto Di Carlo, G., 2014. Figurative language in science popularisation: similes as an explanatory strategy in TED talks. *3L Southeast Asian J. Engl. Lang. Stud.* 20 (3), 1–16.
- Simpson, P., 1993. *Language, Ideology and Point of View*. Routledge, London.
- Spencer, A., 2010. *The Tabloid Terrorist: the Predicative Construction of New Terrorism in the Media*. Palgrave Macmillan, Hampshire.
- Tang, R., John, S., 1999. The 'I' in identity: exploring writer identity in student academic writing through the first person pronoun. *Engl. Specif. Purp.* 18, 23–39.
- Toft, A., 2014. Contesting the deviant other: discursive strategies for the production of homeless subjectivities. *Discourse Soc.* 25 (6), 783–809.
- Torrence, H., 2013. *The Clause Structure of Wolof: Insights into the Left Periphery*. Benjamins, Amsterdam.
- Tsai, T., 2015. Are You TED Talk Material? Comparing Prosody in Professors and TED Speakers. *INTERSPEECH*, pp. 2534–2538.
- United Nations, 2012. *Introduction to International Terrorism*. United Nations Office on Drugs and Crime, Vienna.
- United Nations, 2015. *Good Practices in Supporting Victims of Terrorism within the Criminal Justice Framework*. United Nations Office on Drugs and Crime, Vienna.
- Van Dijk, T.A., Kintsch, W., 1983. *Strategies of Discourse Comprehension*. Academic Press, New York.
- Weinberg, L., Davis, P., 1989. *Introduction to Political Terrorism*. McGraw-Hill, New York.
- Whitley, R., 1985. Knowledge producers and knowledge acquirers: popularisation as a relation between scientific fields and their publics. In: Shinn, T., Whitley, R. (Eds.), *Expository Science: Forms and Functions of Popularization*. Reidel, Dordrecht, pp. 3–28.
- Whittaker, D., 2001. *The Terrorism Reader*. Routledge, London.
- Xiao, R., McEnery, T., 2005. Two approaches to genre analysis: three genres in modern American English. *J. Engl. Ling.* 33 (1), 62–82.