Lethal brands: Terrorist groups' logos and violence

Matteo CM Casiraghi [ORCID]

*Department of Politics and International Studies, University of Warwick & Sié Chéou-Kang Center
for International Security and Diplomacy, University of Denver*

Eugenio Cusumano

Department of Juridical and Political Sciences, University of Messina & Institute for History, Leiden University

Abstract

Terrorist organizations are often described as brands. However, the most important visual representations of these brands – terrorist groups' logos – have remained unexplored. In this article, we demonstrate that logos are signalling devices that provide vital cues on the propensity to use violence. To this end, we code and analyse 562 terrorist logos (2000–16). After providing a descriptive overview of the main colours and symbols used by terrorist groups worldwide, we rely on a zero-inflated negative binomial model to analyse the relationship between these organizations' visual choices and their deadly activities. Our results show that the presence of violent, religious, and extremist symbols in terrorist organizations' logos, as well as the use of black as the main colour, correlates with more frequent and deadlier attacks. These findings have important policy implications, demonstrating that logos serve as behavioural cues predicting the threat posed by terrorist groups not less effectively than their ideology. By highlighting the importance of visual artifacts like logos and their amenability to quantitative research, our article also provides a novel methodological contribution to international relations, helping bridge the gap between explanatory and critical security studies.

Keywords

logos, signaling, terrorism, violence, visual politics

Introduction

Scholars have defined terrorism as an 'aberration of political marketing'. Terrorist organizations combine a 'propaganda of the deed' – the attacks they perpetrate – with different forms of textual, audio, and visual propaganda (O'Shaughnessy & Baines, 2009). Accordingly, several security studies researchers employed the lexicon of marketing studies by referring to groups like Daesh and Al-Qaeda as brands (Novenario, 2016; Pokalova, 2018; Rogers, 2018; Simons, 2018; Winter, 2018; El Damanhouri, 2019). The visual tools underlying these and other terrorist brands, however, have not been examined systematically.

To be sure, a growing number of studies have paid attention to the visuality of terrorism, examining the symbolism underlying the choosing of specific targets (Matusitz, 2014) and the use of specific artifacts (Lokmanoglu, 2020) as well as the use of images in Daesh's videos and magazine (Ingram, 2017; Fahmy, 2020; Winkler & El Damanhouri, 2022; Winter, 2020). Surprisingly, however, even scholars who conceptualize extremist groups' communication as marketing have largely overlooked the most visible manifestation of terrorist brands: their logos.

Moreover, while the fact that terrorist organizations combine violence and propaganda is well known to scholars and the public, insufficient attention has been

Corresponding author:
matteocesaremario.casiraghi@du.edu

given to the interplay between these two dimensions. Recent scholarship has examined how the media campaigns of extremist organizations vary across regions (El Damanhouri et al., 2018), change in response to intensified military pressure and battlefield downturns (El Damanhouri et al., 2018; Winter, 2020) and evolve in the wake of successful terrorist attacks (Winkler et al., 2020). No study to date, however, has focused on the relationship between the logos showcased by terrorist groups and their propensity to use violence. Do terrorist organizations' visual choices accurately reflect their willingness to engage in lethal attacks, or is the portrayal of violent symbols only cheap talk that serves as a surrogate for the lack of consistent action? In other words, does a correlation exist between terrorist organizations' logos and their violent strategies?

Scholars have long conceptualized the choosing of a certain logo as a 'symbolic act' that serves as a window into firms' identity (Arnold et al., 2001; Lury, 2004; Cusumano, 2021). We argue that the same is true for terrorist organizations, whose logos offer important cues on the intentions of the groups displaying them. Specifically, we contend that logos serve as heuristic shortcuts into violent organizations' strategies, helping scholars and practitioners assess and predict terrorist groups' likelihood to engage in deadly attacks. We demonstrate this argument by coding the logos of 562 terrorist organizations, leveraging the Extended Data on Terrorist Groups (EDTG) and assessing whether any correlation exists between the use of specific symbols and colours and the propensity to use violence.

By testing this claim, this article makes a novel empirical, theoretical, and methodological contribution to terrorism studies and international relations at large. First, existing scholarship on terrorism has overlooked logos, which – despite their vital role as signalling tools – have largely remained hidden in plain sight. By conducting the first systematic overview of these artifacts, our article provides an original empirical contribution. Relatedly, our analysis of the relationship between the use of certain logos and the behaviour of violent groups also contributes to the theoretical debates on the motives, ideologies and lethality of terrorist organizations. Third, we make a novel methodological contribution by showing that visual artifacts like logos are amenable to quantitative research. Accordingly, we develop an innovative method for analysing colours and coding visual symbols. As such, our methodology may be of interest to scholars across the broader international relations and political science fields.

Last, our article has vital policy implications. Showing the correlation between logos and the threat posed by the organizations showcasing them offers important insights for counterterrorism practitioners, validating the activity of nongovernmental organizations (NGOs) and public institutions monitoring the use of certain symbols by radical groups. Drawing on the argument that ideological preferences are pivotal in explaining terrorist organizations' behaviour (Crenshaw, 1988), previous studies have mainly sought to predict groups' propensity to engage in attacks by examining their ideology (e.g. Asal & Rethemeyer, 2008). However, identifying and operationalizing ideology is a time-consuming and not always straightforward process. Moreover, as our analysis shows, logos help predict terrorist organizations' violent behaviour more effectively than the study of groups' ideology alone, flagging which organizations among those sharing the same ideology are more likely to engage in lethal attacks. Although the analysis of terrorist organizations' logos cannot obviously replace more in-depth studies of the history, structures and belief systems of each group, it nevertheless serves as a valuable tool for counterterrorism practitioners, helping identify which organizations warrant closer attention.

The article is divided as follows. The next section relies on existing taxonomies to provide an overview of the visual branding strategies developed by religious, left-wing, right-wing, and nationalist terrorist organizations. Section three leverages research in terrorism and marketing studies to develop some testable hypotheses on the relationship between groups' activities and their logos. Section four describes our methodology, whereas section five discusses our results. In particular, we show that the presence of violent, religious, and extremist symbols, as well as the predominance of black hues, correlates with a higher likelihood of violent attacks and, to a lesser extent, with the higher lethality of these attacks. Section six provides a qualitative illustration of our argument by briefly examining the rebranding of Aum Shinrikyo, a Japanese terrorist organization that changed both its logo and its tactics over the last decades. The conclusion summarizes our findings and outlines their implications.

Terrorism studies between interpretive and explanatory approaches

Terrorism research is an increasingly broad and fragmented field within security studies. As terrorism studies flourished, a gap has widened between scholars departing from explanatory premises and those sharing critical approaches. This rift departs from core

ontological questions on whether terrorism can be objectively defined and measured, reflecting a wider divide between positivist and interpretive approaches to international relations. As the study of visual artifacts in security studies has been dominated by critical scholars (Hansen, 2011; Guillaume et al., 2016), most studies examining pictures and videos draw on an interpretive approach. The attention to the visuality of terrorism shown by journals like *Security Dialogue* or *Critical Studies on Terrorism* and *Critical Studies on Security* is a case in point (Schlag & Geis, 2017; Martin, 2018). Only recently, systematic studies empirically mapping how terrorist group communication changes have appeared in specialized journals on security and media studies (El Damanhouri et al., 2018; Winkler et al., 2020; Winter, 2020).

By contrast, explanatory studies published in journals like the *Journal of Conflict Resolution* or the *Journal of Peace Research* have made extensive use of quantitative data to examine the motives and strategies of terrorist organizations, and the relationship between their ideological and organizational features and their propensity to engage in deadly attacks. For instance, previous literature established that larger groups with broader alliance networks are deadlier, that religious organizations are more lethal than other ideology-centred groups, and that left-wing terrorists are less deadly than their right-wing homologues (Asal & Rethemeyer, 2008; Horowitz & Potter, 2014). Explanatory terrorist scholarship, however, has very rarely relied on visual artifacts as evidence (Wolfsfeld et al., 2008; Huddy et al., 2021).

Engaging in the debate about the ontology and social construction of terrorism is beyond the scope of our article. By combining interpretive terrorism studies' attention to visuality with explanatory scholars' search for patterns in terrorist organizations' deadly violence, however, our article highlights the merits of both perspectives and the opportunity for fruitful dialogue between different subfields and epistemologies. As heuristic shortcuts into violent organizations' strategies, visual artifacts can be effectively leveraged by quantitative studies seeking to explain and, to the extent possible, predict terrorist attacks.

In order to address the blindness of existing research to the logos of terrorist organizations, the remainder of this article provides a twofold contribution. First, we engage in a descriptive mapping exercise of the symbolic and chromatic features of terrorist logos worldwide, identifying whether and to what extent such visual choices resonate with groups' ideology and areas of operations. Second, and most importantly, we demonstrate why logos matter by testing the correlation between the symbols used by terror groups and their propensity to resort to deadly attacks.

Logos as behavioural cues: Some theoretical expectations

Due to the dearth of previous studies on the subject, there are no ready, off-the-shelf hypotheses on the relationship between the logos of terrorist groups and their strategies. We therefore developed some original, testable expectations on the rationale underlying terrorist organizations' use of specific symbols by combining terrorism studies with marketing research and the scholarship on visual cues in international politics.

Branding is the process whereby organizations differentiate themselves from their competitors. While the concept originates from the study of for-profit entities, branding occurs across different organizations. Terrorist groups also compete with a plethora of other organizations vying for public attention, and to that end they need to develop distinctive brands (Novenario, 2016; Rogers, 2018; Simons, 2018). Logos are visual signalling devices that sit at the cusp of the symbolic apparatus called the branding iceberg (Lury, 2004). Initially created as marks of private ownership, since the inception of trademark laws logos became standards of quality assurance protecting firms from unfair competition. Although vital for firms to stand out in a competitive market, logos are not mere corporate assets. By the second half of the 20th century, they also became 'organizations' face' (Lury, 2004: 64, 75), serving as 'the ultimate sign of a company's visual identity system' (Schechter, 1993: 33). Consequently, the choosing of a specific logo can be conceptualized as a 'symbolic act' revealing key elements of firms' identity (Arnold et al., 2001: 245).

Logos, like brands, are not unique to firms. As stylized artifacts that are easy to identify and reproduce on a variety of surfaces, logos are upheld by a variety of organizations (Bishop, 2001). Entities like NGOs and political parties, for instance, have emulated the business sector in developing their own logos, and radical political organizations and terrorist groups are no exception. As logos are symbolic acts and 'symbols are a critical component of creating a brand identity for a terrorist organization' (Simons, 2018: 328; Lokmanoglu, 2020), all different types of terrorist groups have branded themselves by using unique logos.

Previous research on the logos of commercial violent actors argued that private military and security

companies (PMSCs) mainly use their logos for camouflaging or blame-shifting. By blending into the broader population of regular businesses using plain, unimpressive corporate logos, PMSCs have effectively increased their legitimacy, signalled adherence to prevailing norms, and reduced their vulnerability to public criticism (Cusumano, 2021). Consequently, PMSCs' visual communication and behaviour are often decoupled. We argue that this is not the case for terrorist organizations. While even violent non-state actors often seek to acquire a modicum of legitimacy by showing visual adherence to some norms, scholars and practitioners see the communication of terrorist groups as predicated on 'advertising their capability to harm and destroy' (Schmidt, 2014: 1). Consequently, we expect terrorist organizations' visual choices to consistently reflect their behaviour.

Visual symbols are artifacts where 'positions, strategies, and meanings are made particularly obvious because they are stylized, codified, and more or less ritualized' (Foret, 2009: 141). As such, they are often used as a resource for political goals (Lyndggaard, 2021: 1215), thereby serving as relatively unambiguous cues of organizations' intentions. This is especially the case for iconic or indexical symbols, namely those symbols that consist of the imitative representations of a given object, or point to a given object through a spatial or causal connection (Peirce, 1991). Terrorist groups, ranging from Islamist organizations like Daesh (Simons, 2018; Lokmanoglu, 2020) to far-right extremists (Am & Weimann, 2020; Miller-Idriss, 2020) are no exception, attaching especially strong importance to symbols.

Marketing scholars have paid extensive attention to business organizations' chromatic preferences. Colours serve two crucial purposes: they differentiate brands from competitors, and offer cues on a product's attributes, or in politics, on parties' position on the left–right spectrum (Casiraghi et al., 2022). Accordingly, we expect colours to serve as cues into terrorist organizations' history, ideology and behaviour. Specifically, we expect black and green to be most widespread among Islamist extremist groups, as these two colours are central to the Islamic tradition (Müller & Özcan, 2007). Accordingly, groups operating in regions where Islam is the dominant religion should present a larger use of black and green, whereas other geographical areas should showcase a more diverse chromatic patchwork. Relatedly, we expect religious terrorist groups – a category dominated by Islamist organizations – to feature mainly black and green as well.

Although terrorist groups do not have institutionalized preferences like political parties, we expect violent organizations inspired by left-wing and right-wing ideologies to develop similar chromatic schemes to the lawful political organizations sharing similar beliefs. As documented by previous scholarship, a relationship exists between colours and political ideologies: left-wing party logos mainly display hues at the red end of the colour spectrum, while blue hues prevail among right-wing parties (Casiraghi et al., 2022). Our basic expectation is therefore that left-wing terrorist groups mainly employ red logos, whereas right-wing groups prefer blue as well as brown, a colour often associated with Nazi Germany. Finally, nationalist groups should showcase the largest degree of chromatic variation, as they tap into the visual identity systems of specific regions and communities. For these reasons, observing terrorist organizations' brandscape provides important information about groups' ideology, where they operate, and where they recruit their members.

We also expect some specific correlations between visual choices and terrorist organizations' tactics, which we will test in the second half of the results section. Specifically, we assess four hypotheses. First, upholding violent symbols clearly identifies a certain group as an organization willing to engage in violence to pursue its goals (Altheide, 2007). We therefore expect the display of violent symbols like firearms, melee weapons like sabres, and items that are indexical to death like skulls to correlate with a higher propensity to conduct attacks and a higher number of victims. For instance, the Nigerian group Boko Haram, one of the deadliest organizations of the last decades, showcases two large AK-47 rifles in its logo. Conversely, the display of symbols traditionally associated with peace, like olive branches and doves, should signal greater restraint, correlating with fewer attacks and fewer victims.

> *H1: Violent Symbols:* Groups with violent symbols in their logos engage in more attacks and cause more victims; groups with peaceful symbols do the opposite.

Second, we expect organizations showcasing religious symbols to engage in more attacks and cause more victims. Since the contested dichotomy between old and new terrorism was introduced (Duyvesteyn, 2004; Hoffman, 2006), scholars have largely agreed that organizations imbued with messianic religious goals are likely to engage in more large-scale and indiscriminate attacks (Rapoport, 2004). Unlike other terrorist organizations, religious groups appeal to a supernatural audience and 'other' their potential victims, two ideational processes that facilitate violent behaviour (Asal & Rethemeyer,

2008). Various studies have empirically tested and confirmed this correlation (e.g. Horowitz & Potter, 2014).[1] The examples of Boko Haram – whose logo shows a large open Quran as well as the abovementioned AK-47 – or Daesh – whose logo features verses from the Shadada, the Islamic profession of faith – forcefully suggest a potential connection between the display of visual religious symbols and propensity to violence. As these examples suggest, the use of religious symbols may not simply be a reflection of a group's ideology, but a statement of their commitment to enact violence in the pursuit of messianic goals.

Religious ideologies may be signalled through religious symbols as well as chromatic choices. In particular, black is a chromatic cue that Islamic terrorist groups employ to evoke 'the flag waved by the Prophet Muhammad [and other Islamic leaders] to wage jihad against infidels'. Since then, black has become an 'ontological metaphor for the conquest of Dar al-Harb (infidel territories) by Dar al-Islam (Allah-compliant nations)' (Matusitz & Olufowote, 2016: 29). Consequently, we also expect the display of religious and black symbols to correlate with attacks and deadliness.

> *H2: Religious and black symbols:* Groups showcasing religious symbols and/or black in their logos engage in more attacks and cause more victims.

Previous literature has established that groups with right-wing, left-wing, and nationalist ideologies are less violent than religious terrorist organizations (Horowitz & Potter, 2014). However, not all left- or right-wing groups share the same propensity to use violence, nor do they all showcase the same logos. Indeed, only some of these groups feature logos showing extremist symbols that are closely associated with the use of large-scale violence in the pursuit of political goals, like swastikas and Celtic crosses or hammer and sickles. For instance, the Conspiracy of Fire Nuclei, a Greek far-left terrorist group with an anarchist symbol in their logo, was responsible for over three terrorist attacks per year in 2000–16. We therefore argue that openly showcasing the symbols of extremist ideologies also signals a stronger willingness to engage in violent attacks.

> *H3: Extreme ideology symbols:* Groups with far left and far right ideological symbols in their logos engage in more attacks and cause more victims.

By contrast, the opposite may hold true in the case of nationalist groups. Organizations fighting for independence crave support from the international community and are eager to obtain official recognition of breakaway regions' right to statehood (Gorski & Türkmen-Dervişoğlu, 2013). Moreover, these organizations are especially in need of preserving popular support, and may therefore be less willing to antagonize local populations through systematic violence (Toft & Zhukov, 2015). Due to these reasons, nationalist groups should be keener to comply with basic international norms, and therefore engage in fewer indiscriminate attacks (Sprinzak, 1991; Fortna et al., 2018). Organizations that explicitly signal the objective of obtaining national autonomy in their logos through symbols like the silhouette of a region or a regional flag should be especially subjected to these restraints.

> *H4: Nationalist symbols:* Groups with a nationalist symbol(s) in their logos engage in fewer attacks and cause fewer victims.

A sceptical reader may object that since organizations' visual choices reflect their belief systems, an analysis of logos adds little to existing explanations predicting lethality based on terrorist ideology. However, as already mentioned and illustrated more in detail by Table III, ideology and visual signalling do not always overlap, as only 40% to 70% of religious, left-wing, right-wing and nationalist groups actually have logos showcasing ideological symbols. Hence, the analysis of terrorist logos offers additional insights that groups' ideology alone cannot provide. Notably, the presence of one or more specific symbols in the logo of a radical organization sheds light on where that specific group lies on the spectrum of extremism. Leveraging the correlation between the use of certain symbols and terrorist attacks may therefore be especially useful for anticipating variance in the propensity to violence of different groups sharing the same ideology.

As previous works on terrorist lethality noted (e.g. Hou et al., 2020), the majority of terrorist groups are inactive, and the number of group-years with a terrorist attack is considerably low. In order to tackle this issue, we depart from previous scholarship that infers lethality from a single causal process (Asal & Rethemeyer, 2008), as this method may fail to capture important differences

---

[1] Although in the EDTG dataset there are non-Islamic religious terrorist groups, such as the Ku Klux Klan or the English Defence League, they constitute less than 2% of all religious terror organizations.

between groups that are simply inactive and organizations that actively pursue a violent agenda but employ violence to different degrees. Instead, we rely on quantitative models that are best suited for zero-inflated data. Specifically, we contend that two different sets of causal mechanisms are at play. The first set distinguishes between groups that are active and groups that no longer are (i.e. zero versus non-zero observations), whereas the second set concerns a count process, focusing on why some groups engage in more attacks, and/or are more lethal.

To investigate the first causal process, we employ all those explanatory variables that extant literature deems relevant to explain groups' lethality, like ideology, age, and size of the organization, as well as the political regime in which it operates. We then add a control for our main visual variable of interest – the presence of a violent symbol. For the second process, we rely on all our visual variables, along with a control for the region where the group operates.

Data and methods

In order to build our original dataset, we relied on the EDTG, the most detailed and widely used archive collecting data on terrorist groups operating between 1970 and 2016 (Hou et al., 2020). Due to the paucity of reliable visual evidence from previous decades, we restrict our investigation to 2000–16, a timeframe in which the EDTG provides data on 562 terrorist organizations. By drawing on official sources such as the US National Counterterrorism Office,[2] NGOs like the Anti-Defamation League and analysts that studied terrorist organizations' logos (Beifuss & Trivini Bellini, 2013), we collected the logos of 482 groups. When we did not find a logo in any of these sources, we searched the websites and social media accounts associated with the terrorist groups, as well as newspapers, blogs and other digital sources. We considered a specific visual item as the 'official' logo of a group only when we found it in identical form in at least two different sources (e.g. documents published by a terrorist group and newspaper pictures where members of the same group show the logo).

We were not able to identify the logo of 80 groups (14.2% of the sample). As we discuss in the Online appendix, groups without logos are equally distributed across ideological and regional categories and tend to be less active in the period considered. Consequently, examining only the organizations 'with logos' allows us to

focus on the groups that are more relevant without distorting our results. Notably, we did not find examples of logo change in the period we consider, which suggests that the logos of terrorist organizations tend to remain stable over time. The only significant exception is the Japanese terrorist group Aum Shynrikyo, which we decided to use as an illustrative case study even if its main terrorist activities fall outside our time frame.

We then manually coded all logos. As images are often polysemic, sharing multiple meanings that vary depending on the cultural background of the observer and their subjective perceptions (Hansen, 2011), coding visual artifacts entails some challenges. However, our research design minimizes many of the problems attached with the coding of visual artifacts. First, logos are stylized items with a much lower information bandwidth than most images (Johannessen, 2017). Moreover, we restricted our focus to those visual items that can be measured most objectively, namely colour hues and the presence or absence of violent, peaceful, religious, ideological and nationalist symbols. We also factored the size of violent symbols according to a pre-determined scheme (see the Online appendix).[3]

Violent symbols include rifles, grenades, tanks, swords and melee weapons like knives, as well as skulls and gruesome images, while peaceful symbols usually consist of olive branches or doves. Most of the religious (e.g. a Quran, a crescent), far right (e.g. swastikas, Celtic crosses), left-wing (e.g hammer and sickles, red stars) and nationalist symbols (e.g. maps, silhouettes of a country/region, flags) were easy to code and assign to a specific category. In those very few cases where the meaning of a specific symbol was unclear to us, we conducted desk research into relevant sources, which allowed us to categorize every symbol in our corpus (see the Online appendix).

Lastly, we used the *colordistance* package of the software R to identify the main chromatic features of each logo.[4] We focused on the most important colour property – the hue – operationalized as a radial number between 0° and 360° that describes the colour dominant wavelength, wherein 0° corresponds to red and 240° to blue. We estimated the relative presence on the surface of the logo of each of the three main colours we extracted. We hence obtained a single hue statistic for each organization, computed by mixing the three main colours

---

[2] https://www.dni.gov/nctc/ftos.html.

[3] Two graduate students recoded random samples of our visual variables. Results of the agreement are in the Online appendix.

[4] https://cran.r-project.org/web/packages/colourdistance/index.html.

Table I. Symbols in terror group logos

Categories	Presence	Most common symbols
Violent	39.3%	Rifle, sword, skull
Peaceful	6.0%	Olive, dove
Black	33.7%	–
Left-wing	10.4%	Hammer and sickle, red star, fist
Right-wing	3.7%	Swastika, Celtic cross
Religious	28.1%	Quran, mosque, crescent
Nationalist	43.6%	Flag, map

Table II. Examples of logos

Group	Symbol(s)	Attacks (mean/year, 2000–16)	Lethality (casualties/attack, 2000–16)	Logo
'Abdallah 'Azzam Brigades	Violent religious	1.3	4.6	
Revolutionary Armed Forcesof Colombia	Violent nationalist	7.9	4.6	
Shining Path	Left-wing	1.6	5.8	
Aum Shinrikyo	Peaceful	0	0	
ISIL	Black religious	280.0	18.9	

Source: US Counter Terrorism Guide, Office of the Director of National Intelligence, https://www.dni.gov/nctc/ftos.html.

extracted, weighted proportionally to their relative presence on the logo surface. Since the colour black is of particular importance, we specifically pinned down all logos where black occupies more than half of the surface. Table I presents an overview of our coding categories, their diffusion across all groups, and the most common symbols, whereas Table II shows five examples of terrorist group logos with data about our outcome variables.[5]

---

[5] We provide descriptive statistics about all variables in the Online appendix.

Table III. Ideologies, logos and violent cues[a]

Ideologies	Conformity between ideology and symbol	Size of violent symbol (mean across ideology)	Size of violent symbol (mean across logos)
Left-wing	52.4%	0.46	0.33
Right-wing	39.5%	0.59	0.76
Nationalist	68.7%	0.51	0.50
Religious	63.5%	0.73	0.81

[a] Column 2 shows the percentage of ideology-centred groups (as coded in the EDTG) which showcase a symbol of their ideology in their logos. Column 3 presents the average size of the violent symbol in ideology-centred groups' logos (as coded in the EDTG). Column 4 provides the same figures for those groups that display an ideological symbol in their logo.

Given the zero-inflated nature of our dependent variables – attacks per year and casualties per attack (per year) – we relied on a zero-inflated negative binomial model.[6] This model allows us to investigate the two causal processes that should explain our outcomes of interest, thereby offering an innovative contribution to the study of terrorist violence. We consider the process leading extremist groups to engage in attacks to be twofold, a scenario that applies to political phenomena with similar statistical distributions (Wilson & Piazza, 2013; Joly, 2019).

We first employ a logistic inflate-model, where we test the factors that should lead a group to conduct attacks (or cause casualties) or not employ violence at all. Second, we rely on a count-model where we assess the factors that should explain smaller versus larger actual number of attacks (or casualties). It is worth noting that our hypotheses foresee similar effects for our independent variables on both the number of attacks and their lethality, but we decided to test both in two different models, as different processes may be at play. For instance, some terrorist groups may be willing to demonstrate their intentions through a large number of attacks, but refrain from indiscriminate violence and solely engage in symbolic or targeted strikes that do not result in large casualties (e.g. bombing an empty building or executing selected individuals).

Our choice of one set of factors for the inflate model and another set for the count model is not arbitrary. We decided to use ideologies (with violent symbols) in the inflate model to replicate the analysis conducted by previous studies (e.g. Asal & Rethemeyer, 2008). Replicating the approach widely used by extant scholarship and adding violence symbols therein provides an ideal opportunity to test the explanatory power of logos relative to standard ideology-based explanations. Specifically, consistent with previous studies, we control for the explanatory power of groups' age and main ideology, as well as the democratic score of the countries where the organization mainly operates. Scholars noted that other factors, such as group size, the number of their allies, and their main goal, should explain terrorist organizations' propensity to kill as well (Horowitz & Potter, 2014). However, since the EDTG provides these data only for very few groups, we decided to exclude such controls.[7] We then factor whether groups show a violent symbol in their logos or not. In this way, we can test through a model similar to those employed by previous studies whether visual cues have a stronger predictive potential than the variables identified by previous studies like ideology and group-level characteristics.

We dig deeper into the role of terrorist symbols in our count-model in order to obtain more fine-grained insights into the role of logos in predicting groups' lethality. As explained, such models are better suited for zero-inflated data like deaths by terrorist attacks. Here, we rely on all our visual variables – size of violent symbol, black logo, and religious, nationalist, left-wing, right-wing, and peaceful symbols – and control for the region where the group is located. In sum, while the presence or absence of violent symbols factored in the inflate model should help assess the likelihood of violent behaviour, the data on the size of such visual artifacts and the display of ideological symbols included in the count model should provide further insights into the position of terrorist groups on the spectrum of extremism.

In any case, in the Online appendix we fit different models, in particular a negative binomial regression where all variables are included in a single model, and

---

[6] Vuong and zip tests confirm that this model performs better than a standard negative binomial and a standard zero-inflated model. However, the Online appendix includes various alternative models, and results generally hold.

[7] In the Online appendix, we fit the same models also using these additional control variables, and our results remain similar even when the number of observations drops.
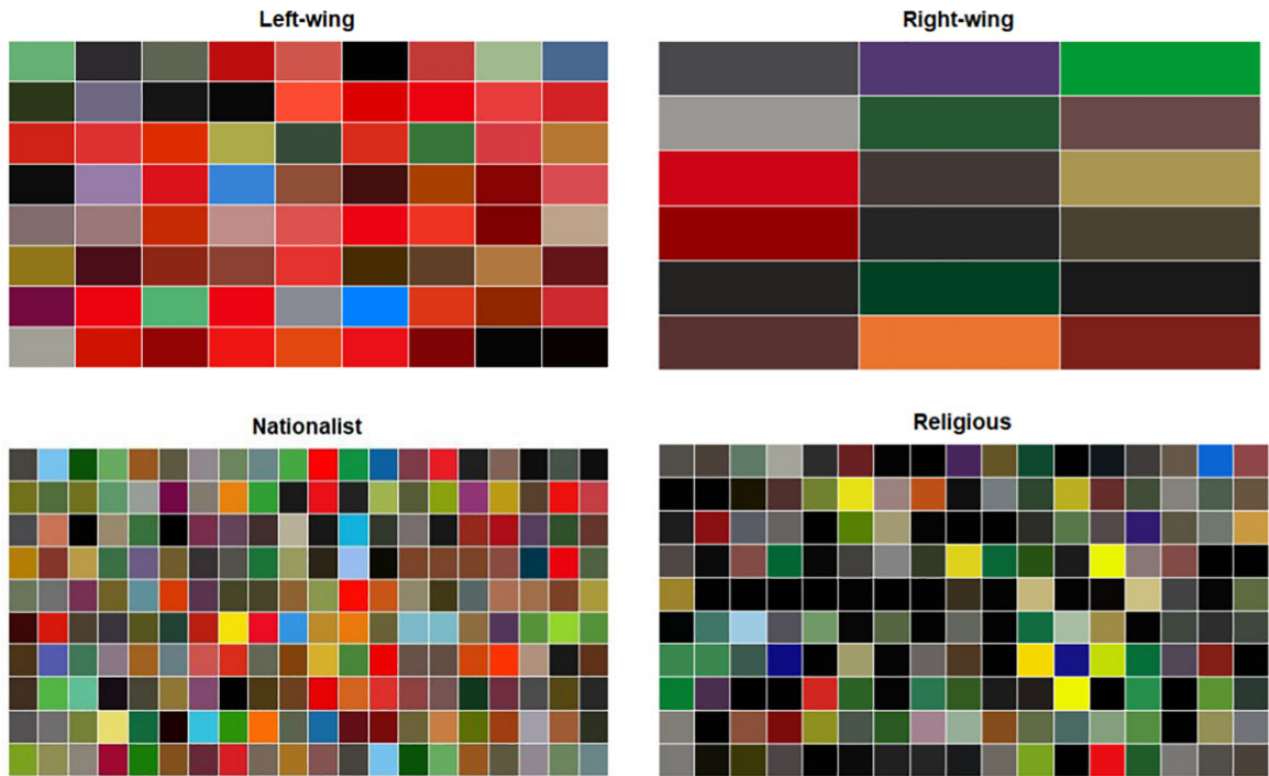
Figure 1. The colours of terrorism (by ideology)

results remain solid. Finally, to provide a more thorough analysis of the relation between ideologies and symbols, and between ideological and violent symbols, we also test models with various interactions between these variables.

Results and discussion

Before discussing our models, we present descriptive data offering a broad overview of terrorist logos. Figures 1 and 2 show the main colour of each logo, divided by region and ideology. Although chromatic choices show significant variation across both categories, some patterns emerge. Consistent with our initial expectations, the colours chosen by organizations with left-wing and right-wing ideological leanings resonate with the chromatic schemes developed by like-minded political parties, with red logos featuring more prominently across left-wing groups and brown and blue logos dominating terrorist organizations at the right side of the political spectrum. Nationalist groups show a larger degree of variation in terms of chromatic preferences, arguably due to the diversity of flag colours that they emulate. Due to the large frequency of Islamist groups therein, black

logos are most common among religious terrorist organizations.

Relatedly, logos that are completely or mostly black (i.e. the grey squares) are prevalent in the Middle East and North Africa, and to a lesser extent in South Asia and in sub-Saharan Africa, where Islamic groups are more present. This, as anticipated, is due to the pivotal role that black plays in the Islamic tradition together with green, another colour that is widely present here. North America shows a large presence of both blue and red, likely due to extremist organizations' use of the US flag colours, whereas red is frequent in Europe as well as in Latin America due to the higher presence of left-wing groups.

Table III shows that approximately 40% to 70% of terrorist groups use logos showcasing a symbol of their ideology, as coded in the EDTG. Interestingly, while two-thirds of both nationalist and religious groups do visually signal their ideology through symbols, left-wing and right-wing groups display their respective ideological symbols less often, a value that is particularly low for right-wing groups. This discrepancy may be due to the fact that right-wing groups do not possess a broad base of socially acceptable symbols to use, and may not be willing to display extremist far-right symbols because of the strong
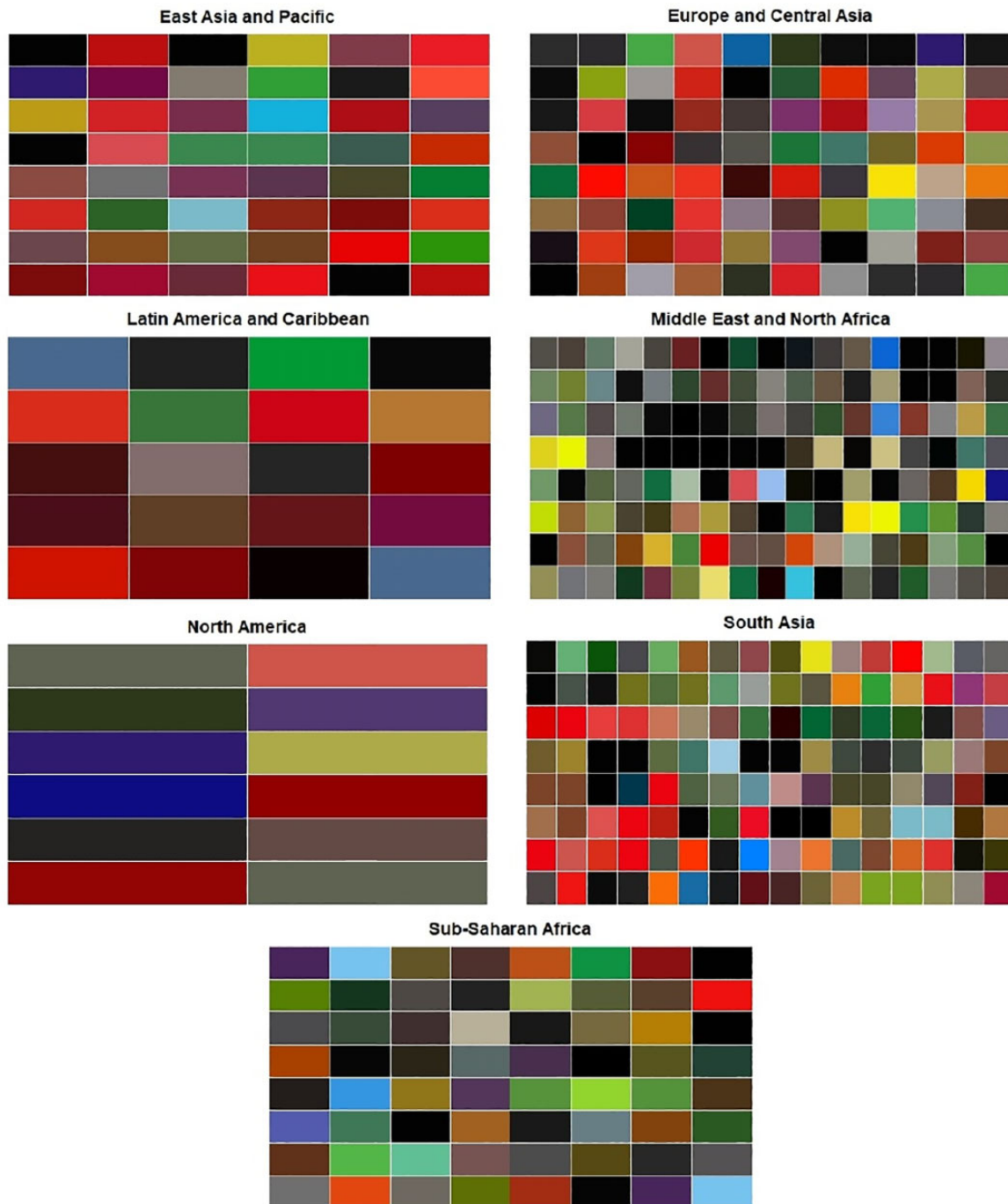
Figure 2. The colours of terrorism (by region)

stigma attached to items like swastikas.[8] However, right-wing groups promise more violence – that is, the average size of violent symbols in their logos is higher – compared to both left-wing and nationalist groups.

This value is even higher for religious terrorist groups, which showcase their violent intentions most often and clearly. Such descriptive results seem to support the findings of previous literature, which demonstrate that religious organizations have enacted the most violent terrorist agenda (Horowitz & Potter, 2014). Interestingly, the difference in the size of violent symbols grows larger when we only focus on those groups that visually

---

[8] See the Online appendix for a table with all correlations among our ideological and visual variables.

Table IV. Predicting attacks and casualties

VARIABLES	Model 1 (count) Attacks	Model 1 (inflate) Attacks	Model 2 (count) Lethality	Model 2 (inflate) Lethality
Violent symbol (size)	0.129*		0.119†	
	(0.0559)		(0.0682)	
Black logo	0.936**		0.826**	
	(0.135)		(0.126)	
Religious symbol	1.409**		0.118	
	(0.152)		(0.145)	
Nationalist symbol	0.108		-0.522**	
	(0.139)		(0.130)	
Left-wing symbol	1.273**		-0.400*	
	(0.194)		(0.202)	
Right-wing symbol	1.255**		-0.791	
	(0.422)		(0.511)	
Peace symbol	-1.177**		-0.313	
	(0.228)		(0.267)	
Violent symbol (dummy)		-1.460†		-0.694†
		(0.795)		(0.438)
Group age		0.0612**		-0.0210
		(0.0203)		(0.0144)
Democracy score		-0.249**		-0.0694†
		(0.0455)		(0.0376)
Religion (ideology)		-1.101		-13.05
		(0.824)		(565.3)
Left-wing (ideology)		1.964**		0.523
		(0.663)		(0.451)
Right-wing (ideology)		4.828**		1.728**
		(0.881)		(0.637)
Constant	1.297**	1.417*	3.019**	-0.613†
	(0.281)	(0.557)	(0.370)	(0.316)
Observations	4,385	4,385	4,348	4,348

Standard errors in parentheses
Coefficients in the inflate models indicate the likelihood of having zero-observations
** p<0.01, * p<0.05, † p<0.1
Model 1 zip test of alpha=0: chibar2 (01) = 7.0e+04 Pr>=chibar2 = 0.0000
Model 1 Vuong test of zinb vs. standard negative binomial: z = 3.46 Pr>z = 0.0003
Model 2 zip test of alpha=0: chibar2(01) = 2.7e+04 Pr>=chibar2 = 0.0000
Model 2 Vuong test of zinb vs. standard negative binomial: z = 0.89 Pr>z = 0.1875
Nationalist ideology variable omitted
Regions' coefficients hidden (see the Online appendix)

signal their ideology through a symbol associated thereto. Table III shows that nationalist and above all left-wing groups use their logos to signal their ideology rather than their violent intentions, while right-wing and religious groups are more likely to showcase violent symbols. Hence, there seems to exist a reinforcing mechanism for religious and right-wing terrorist groups, at least in what they promise. Groups that are willing to clearly signal their ideology in their logos are also more likely to communicate their violent intentions, a result that highlights the role of visual symbols as a window on the level of ideological extremism of terrorist groups.

Our analysis so far has shown the broad visual patterns displayed by different types of terrorist organizations. The quantitative models displayed in Table IV test what factors best predict terrorist groups' likelihood of engaging in attacks and causing casualties. Model 1 (count) confirms H1, showing that violent symbols are robust predictors of terrorist groups' likelihood to engage in attacks. As the size of violent symbols in the logos grows, so does the number of terrorist attacks. By contrast, and unsurprisingly, the presence of peace symbols reduces this probability. The display of religious and black symbols also positively correlates with the number of attacks, thereby confirming H2,

and so does, to a slightly lower degree, the presence of far-left and far-right symbols, which supports H3. By contrast, since nationalist symbols have no significant effect, H4 is not confirmed.

Model 1 (inflate) provides additional insights: in this case as well, the presence of a violent symbol remains a significant predictor of violent behaviour. Notably, terrorist groups' ideologies offer mixed results. Surprisingly, religious ideology has no effect on the likelihood of observing violent behaviour, whereas both left-wing and right-wing ideologies reduce such probability. Finally, older groups and groups in non-democratic countries tend to engage in terrorist attacks less often, a result that confirms previous findings (Wilson & Piazza, 2013). Hence, ideologies only partly predict terrorist behaviour. Consistent with extant terrorism scholarship, left- and right-wing groups do indeed showcase a lower propensity to engage in deadly attacks. However, in contrast with previous studies, religious ideology has no significant effect. These results remain robust when we reduce the number of observations to control for additional factors in line with previous literature, such as the number of allies and territorial control (see the Online appendix).

Overall, these findings suggest that visual signalling strategies matter more than ideology in predicting terrorist attacks, as confirmed by the fact that groups with violent symbols in their logos produce non-zero observations more often. This result is corroborated by the count model, where larger violent symbols increase the probability of attacks. The signalling of violent intentions, however, is also conducted through ideological symbols, in particular religious symbols, the colour black, and symbols of extreme ideologies. We therefore observe an interesting mismatch between the effect of ideology and that of ideological symbols: ideology per se only predicts left- and right-wing groups' lower likelihood of engaging in attacks, whereas the presence of ideological symbols stands out as a powerful indicator of violent behaviour across all groups.

As previous studies highlight that religious ideology should be the most powerful predictor of terrorist lethality, our results add to these findings by highlighting which religious groups specifically are more likely to engage in violence. Religious terrorist organizations that uphold a religious symbol in their logo perform an average of 16.6 terrorist attacks per year in the period 2000–16. Those religious groups that do not display a religious symbol, by contrast, engage, on average, in only 2.4 terrorist attacks in the same time frame, a result that

we explore further in the discussion of interaction models below.[9]

Model 2, which focuses on lethality (i.e. average number of victims per attack per year), offers additional findings. The inflate model shows that the presence of a violent symbol increases the likelihood of non-zero observations, confirming that visual brands provide accurate insights into groups' propensity to use violence. Like in Model 1, and in contrast with previous studies (Asal & Rethemeyer, 2008), religious ideology is not significant. While there is no effect for left-wing ideology, right-wing ideology inversely correlates with casualties consistent with existing literature.

The count model further supports H1, as the size of violent symbols positively correlates with lethality as well. Black logos are again a significant predictor of lethality, whereas religious and right-wing symbols, unlike in Model 1, are not, a result that is clarified by interactions models below. Interestingly, left-wing symbols increase the likelihood of attacks, but reduce their deadliness. Arguably, those terrorist groups employ logos to signal their violent intentions, consistent with their propensity to engage in a higher number of attacks. However, more attacks do not automatically translate into a significantly larger number of casualties, which depends on the violent strategies these organizations choose to perpetrate. Finally, nationalist symbols have the opposite effect, as expected by H4.

To provide a more thorough picture of the relation between ideology and terrorist groups' visual communication and shed more light on some mixed results on the attacks versus lethality divide, we test additional models with interaction terms between (i) violent and ideological symbols and (ii) violent symbols and ideology (see the Online appendix for the full models). Results show that in the latter case (ii) the interactions are not significant, confirming that the violent intentions shown in logos do not simply descend from different ideological positions and are not in a clear, direct relation with those. The interaction models serve as additional robustness checks for our results, which remain largely similar in such additional models as well.

The interactions between violent and ideological symbols (i) offer more fine-grained and ambivalent findings. First, the interaction term for religious and nationalist groups is positive and significant for both attacks and lethality, implying that terrorist organizations showing

---

[9] Descriptive statistics from average values per year across religious groups with religious logos and religious groups without.

both an ideological and a violent symbol engage in more attacks and cause more victims than groups showcasing their ideology but no violent symbol in their logos. Such findings strongly resonate with our theoretical expectations on symbols as cues on groups' intentions. While religious ideology per se proves to be a poor predictor of violence, the combination of violent and religious symbols provides more accurate insights into terrorist groups' behaviour. Since religious terrorist groups have been the most violent in recent decades, this finding is particularly important, helping counterterrorism practitioners to flag which groups within the broader family of religious extremist organizations require closer attention.

Although the presence of nationalist symbols in terrorists' logos correlates with lower lethality, those nationalist groups showcasing violent symbols are consistently more lethal, an interesting result showing that the moderating effect of nationalist goals on terrorist groups' violence disappears in the case of those groups that have already chosen to signal their intention to pursue a violent agenda. The results of these interactions help explain the mixed findings on the role of religious and nationalist symbols in Models 1 and 2 above and between these models and those with interactions.

The interaction terms for left- and right-wing groups are, on the other hand, negative. Contrary to our expectations, groups showcasing both their political ideology and a violent symbol in their logos seem to engage in fewer and less lethal attacks. This seemingly inconsequential use of violent symbols may derive from the tendency of these groups to uncritically copycat the same violent symbols previously used by the fascist or communist regimes inspiring them and be contingent on the low-profile adopted by far-left and far-right groups in the 2000–16 timeframe. The rebirth of far-right violence in the Western world in the last few years may yield different results in the future.

The next section will exemplify how logos serve as effective cues of groups' violent intentions by focusing on the example of Aum Shinrikyo. Rather than as a source of hard evidence, the overview of Aum Shinrikyo's evolution is only meant as an illustrative case study. As the only organization in our population that changed its logo, Aum Shinrikyo exemplifies the connection between logos and extremist organizations' behaviour, effectively illustrating the findings of our quantitative analysis.

Terrorist groups' rebranding: The case of *Aum Shinrikyo*

In March 1995, the extremist Buddhist sect *Aum Shinrikyo* (Supreme Truth) conducted a chemical attack

Figure 3. *Aum Shinrikyo*'s rebranding (old logo on the left, new logo on the right)

using Sarin gas in Tokyo's subway, killing 27 people and injuring over 4,000. This terrorist attack – the gravest in Japanese history – was the culmination of a violent strategy leveraging the use of chemical and biological weapons to maximize casualties and destabilize Japanese society. Initially operating under the façade of a lawful religious organization, the group – led by Asahara Shoko – secured large financial resources and recruited over 50,000 followers, including university graduates and scientists. Inspired by a messianic belief in the doom of modern society, *Aum Shinrikyo* initiated ten chemical and seven biological attacks between 1990 and 1995, which included the use of phosgene, hydrogen cyanide, anthrax, and botulin against civilians and state officials (Post, 2007). Long before Islamist organizations like Daesh, *Aum Shinrikyo* stood out for its willingness to use far greater and more indiscriminate violence than secular, politically motivated terrorist groups (Reader, 2002: 152).

Captured after the 1995 attack, Asahara was sentenced to death and executed in 2018, together with 12 others. Since then, *Aum Shinrikyo* reduced its footprint and splintered into different groups, but remains active at the time of writing. Fumihiro Joyu – the head of its largest branch *Aleph* – stressed that while they follow the same ideology as their predecessor, he and his followers oppose the violent tactics embraced by the group under Asahara's leadership. While it remains closely monitored by law enforcement, and has recently been subjected to criminal investigations in various countries, the group has not conducted any lethal attack since the 1990s (Gunaratna, 2018: 3).

What is worth noting for the purpose of this article is that Aum Shinrikyo's departure from violent tactics was also signalled by a change in its logo. According to the US National Counterterrorism office, the group – which previously upheld a widely black Buddhist religious symbol – now showcases the stylized silhouette of a dove carrying an olive branch (see Figure 3). Of course,

whether the group sticks to the intentions showcased in their new logo or their rebranding is merely a strategic attempt to avoid further indictments remains to be seen. The choosing of a new symbol, however, currently serves as an effective illustration of our findings, exemplifying the broader connection between terrorist organizations' visual communication strategies and violent tactics demonstrated by our quantitative analysis.

Conclusion

Besides providing a novel empirical contribution to the study of violent non-state actors' visual communication, our article offers important insights for terrorism scholars and counterterrorism practitioners. Notably, the correlation we demonstrated between violent, religious, and extremist symbols and the perpetration of violent attacks has important theoretical and policy implications.

As showcased by our models, the quantitative analysis confirms our expectations on the relationship between logos and terrorist violence. A significant correlation exists between the presence and size of violent symbols and terrorist groups' involvement in deadly attacks. Conversely, as illustrated by the case of *Aum Shinrikyo*, the choice to display peaceful symbols correlates with greater restraint. The use of black as the main colour and the display of religious symbols also holds significant power in predicting the tendency to engage in violence, a correlation that appears more robust than the often-studied connection between religious ideology and violent behaviour. This is also true for left-wing and right-wing terrorist organizations, but only for those groups that do actually display extremist symbols. This finding is largely corroborated by our interaction models, which reveal that groups showing both religious and violent symbols show the highest lethality. The same mutually reinforcing tendency is also shared by the interactions between nationalist and violent symbols, but does not apply to left- and right-wing groups.

Organization theorists have long held that the communication and the behaviour of complex organizations are often inconsistent. The need to simultaneously pursue different objectives and juggle incompatible norms and interests frequently prompts political organizations to decouple talk and action (Brunsson, 1989). The visual communication strategies of terrorist organizations, however, rarely follow this pattern. Far from being decoupled from groups' action, the logos of terrorist organizations tend to be reliable cues of their intentions, showcasing their position in the spectrum of ideological extremism. The shortage of such instances of decoupling

confirms previous findings depicting most terrorist groups as relatively cohesive, single-minded organizations largely insulated from environmental logics of appropriateness and actively engaging in breaking societal taboos.

Besides showing the correlation between certain symbols and the actual perpetration of lethal attacks by the organizations upholding them, our results also provide some additional insights into how ideology shapes terrorist groups' visual choices. As mentioned above, while around two-thirds of both nationalist and religious groups do visually signal their beliefs through symbols, left-wing and right-group showcase the symbols of their ideology less often. This unwillingness to display symbols that carry heavy stigma suggests that right-wing and left-wing political groups may be at least partly subjected to the same logic of appropriateness of lawful political organizations. Consequently, only the most extreme among right-wing groups showcase visual taboos like swastikas or Celtic crosses.

Likewise, the overwhelming majority of left-wing groups have relinquished the use of communist symbols like hammers and sickles after the end of the Cold War in order to distance themselves from the Soviet Union and its demise. The adherence of these groups to prevailing chromatic schemes is another case in point. Terrorist groups at the left wing of the political spectrum frequently display red logos, while blue and brown hues prevail among organizations at the right side of the political spectrum. This finding suggests that extremist political groups are socialized to the same chromatic norms upheld by political parties.

From a policy standpoint, the coherence of terrorist organizations' logos and tactics forcefully illustrates the importance of monitoring violent organizations' visual brandscape. Since signalling through logos appears to be an even more effective predictor of violence than ideology, counterterrorism experts should not dismiss terrorist groups' visual brands as cheap talk, but carefully study them as important behavioural cues. While examining organizations' logos cannot replace a more in-depth analysis of groups' history, belief systems, and organizational structures, visual analysis does provide vital policy-relevant insights, helping identify which extremist groups are most likely to pose a threat.

Our findings on the importance of logos as behavioural cues are not solely relevant for counterterrorism scholars and practitioners, but may be of interest for social scientists at large. Scholars focusing on causal explanation and using quantitative methodologies have too often dismissed visual artifacts as irrelevant trivia. As

a result, logos have largely remained the preserve of interpretivist and critical scholars. This overlook has hindered cross-fertilization between different paradigms and disciplines. By showing how visual artifacts like logos serve as windows into extremist groups' violent tendencies, our article provides a first step in the opposite direction. Far from being inconsequential, studying the visual artifacts developed by terrorist organizations and other violent non-state actors may actually be a matter of life and death.

Replication data

The dataset, codebook, and do-files for the empirical analysis in this article, along with the Online appendix, can be found at http://www.prio.org/jpr/datasets.

Acknowledgements

ORCID iD

Matteo CM Casiraghi https://orcid.org/0000-0003-0851-6311

References

Altheide, David L (2007) The mass media and terrorism. *Discourse & Communication* 1(3): 287–308.

Am, Ari Ben & Weimann Gabriel (2020) Fabricated martyrs: The warrior-saint icons of far-right terrorism. *Perspectives on Terrorism* 14(5): 219–236

Arnold, Stephen J; Robert V Kozinets & Jay M Handelman (2001) Hometown ideology and retailer legitimation: The institutional semiotics of Wal-Mart flyers. *Journal of Retailing* 77(2): 243–271

Asal, Victor & Karl R Rethemeyer (2008) The nature of the beast: Organizational structures and the lethality of terrorist attacks. *Journal of Politics* 70(2): 437–449.

Beifuss, Arturm & Francesco Trivini Bellini (2013) *Branding Terror: The Logotypes and Iconography of Insurgent Groups and Terrorist Organizations*. London: Merrell.

Bishop, Ron (2001) Stealing the signs: A semiotic analysis of the changing nature of professional sports logos. *Social Semiotics* 11(1): 23–41.

Casiraghi, Matteo CM; Luigi Curini & Eugenio Cusumano (2022) The colors of ideology. Chromatic isomorphism and political party logos. *Party Politics*. 10.1177/13540688221080539

Crenshaw, Martha (1988) Theories of terrorism: Instrumental and organizational approaches. In: David C Rapoport (ed.) *Inside Terrorist Organizations*. New York: Columbia University Press, 13–31.

Cusumano, Eugenio (2021) Private military and security companies' logos: Between camouflaging and corporate socialization. *Security Dialogue* 52(2): 135–155.

Duyvesteyn, Isabelle (2004) How new is the new terrorism? *Studies in Conflict & Terrorism* 27(5): 439–454.

El Damanhoury, Kareem (2019) Constructing place identity: ISIS and Al-Qaeda's branding competition over the Caliphate. *Place Branding and Public Diplomacy* 16(1): 265–278.

El Damanhoury, Kareem; Carol Winkler, Wojciech Kaczkowski & Aaron Dicker (2018) Examining the military–media nexus in ISIS's provincial photography campaign. *Dynamics of Asymmetric Conflict* 11(2): 89–108.

Fahmy, Shahira S (2020) The age of terrorism media: The visual narratives of the Islamic State Group's Dabiq magazine. *International Communication Gazette* 82(3): 260–288.

Foret, François (2009) Symbolic dimensions of EU legitimisation. *Media, Culture and Society* 31(2): 313–324.

Fortna, Virginia Page; Nicholas J Lotito & Michael A Rubin (2018) Don't bite the hand that feeds: Rebel funding sources and the use of terrorism in civil wars. *International Studies Quarterly* 62(4): 782–794.

Gorski, Philip S & Gülay Türkmen-Dervişoğlu (2013) Religion, nationalism, and violence: An integrated approach. *Annual Review of Sociology* 39(1): 193–210.

Guillaume, Xavier; Rune S Andersen & Juha A Vuori (2016) Paint it black: Colors and the social meaning of the battlefield. *European Journal of International Relations* 22(1): 49–71.

Gunaratna, Rohan (2018) Counter terrorist trends and analyses. *RSIS Publications* 10(1): 1–6.

Hansen, Lene (2011) Theorizing the image for security studies: Visual securitization and the Muhammad cartoon crisis. *European Journal of International Relations* 17(1): 51–74.

Hoffman, Bruce (2006) *Inside Terrorism*. New York: Columbia University Press.

Horowitz, Michael C & Philip BK Potter (2014) Allying to kill: Terrorist intergroup cooperation and the consequences for lethality. *Journal of Conflict Resolution* 58(2): 199–225.

Hou, Dongfang; Khusrav Gaibulloev & Todd Sandler (2020) Introducing Extended Data on Terrorist Groups (EDTG), 1970 to 2016. *Journal of Conflict Resolution* 64(1): 199–225.

Huddy, Leonie; Oleg Smirnov, Keren LG Snider & Arie Perliger (2021) Anger, anxiety, and selective exposure to terrorist violence. *Journal of Conflict Resolution* 65(10): 1764–1790.

Ingram, Haroro J (2017) An analysis of Inspire and Dabiq: Lessons from AQAP and Islamic State's propaganda war. *Studies in Conflict and Terrorism* 40(5): 357–375.

Johannessen, Christian M (2017) Experiential meaning potential in the Topaz Energy logo: A framework for

graphemic and graphetic analysis of graphic logo design. *Social Semiotics* 27(1): 1–20.

Joly, Jeroen K (2019) Modeling two-stage policymaking processes using a zero-inflated Poisson model. *SAGE Research Methods Cases Part 2*. https://dx.doi.org/10.4135/9781526464606.

Lokmanoglu, Ayse D (2020) Coin as imagined sovereignty: A rhetorical analysis of coins as a transhistorical artifact and an ideograph in Islamic State's communication. *Studies in Conflict & Terrorism* 44(1): 1–22.

Lury, Celia (2004) *Brands: The Logos of the Global Economy*. New York: Routledge.

Lynggaard, Kennet (2021) The role of images in EU politics. *Journal of Common Market Studies* 59(5): 1213–1229.

Martin, Thomas (2018) Identifying potential terrorists: Visuality, security and the Channel project. *Security Dialogue* 49(4): 254–271.

Matusitz, Jonathan (2014) *Terrorism & Communication: A Critical Introduction*. London: Sage.

Matusitz, Jonathan & James Olufowote (2016) Visual motifs in Islamist terrorism: Applying conceptual metaphor theory. *Journal of Applied Security Research* 11(1): 18–32.

Miller-Idriss, Cynthia (2020) *Hate in the Homeland: The New Global Far Right*. Princeton, NJ: Princeton University Press.

Müller, Marion G & Esra Özcan (2007) The political iconography of Muhammad cartoons: Understanding cultural conflict and political action. *PS: Political Science & Politics* 40(2): 287–291.

Novenario, Celine M (2016) Differentiating Al Qaeda and the Islamic State through strategies publicized in Jihadist magazines. *Studies in Conflict & Terrorism* 39(11): 953–967.

O'Shaughnessy, Nicholas J & Paul R Baines (2009) Selling terror: The symbolization and positioning of Jihad. *Marketing Theory* 9(2): 227–241.

Peirce, Charles (1991) *Peirce on Signs*. Edited by Hoope James. Chapel Hill, NC: University of North Carolina Press.

Pokalova, Elena (2018) The Al-Qaeda brand: The strategic use of the 'terrorist' label. *Terrorism and Political Violence* 30(3): 408–427.

Post, Jerrold M (2007) *The Mind of the Terrorist*. Basingstoke: Palgrave.

Rapoport, David C (2004) Modern terror: The four waves. In: Audrey K Cronin & James M Ludes (eds) *Attacking Terrorism: Elements of a Grand Strategy*. Washington, DC: Georgetown University Press, 46–73.

Reader, Ian (2002) Spectres and shadows: Aum Shinrikyo and the road to Megiddo. *Terrorism and Political Violence* 14(1): 145–186.

Rogers, Amanda E (2018) Evil™ – Islamic State, conflict-capitalism, and the geopolitical uncanny. *Critical Studies on Security* 6(1): 118–135.

Schechter, Alvin H (1993) Measuring the value of corporate and brand logos. *Design Management Journal* 4(1): 3–39.

Schlag, Gabi & Anna Geis (2017) Visualizing violence: Aesthetics and ethics in international politics. *Global Discourse* 7(2–3): 193–200.

Schmidt, Alex P (2014) Challenging the narrative of the Islamic state. *ICCT Research Papers*. The Hague: International Center for Counterterrorism.

Simons, Greg (2018) Brand ISIS: Interactions of the tangible and intangible environments. *Journal of Political Marketing* 17(4): 322–353.

Sprinzak, Ehud (1991) The process of delegitimation: Towards a linkage theory of political terrorism. *Terrorism and Political Violence* 3(1): 50–68.

Toft, Monica D & Yuri M Zhukov (2015) Islamists and nationalists: Rebel motivation and counterinsurgency in Russia's North Caucasus. *American Political Science Review* 109(2): 222–238.

Wilson, Matthew C & James A Piazza (2013) Autocracies and terrorism: Conditioning effects of authoritarian regime type on terrorist attacks. *American Journal of Political Science* 57(2): 941–955.

Winkler, Carol & Kareem El Damanhoury (2022) *Proto-state Media Systems: Al-Qaeda and ISIS as Exemplars*. Oxford: Oxford University Press.

Winkler, Carol; Kayla McMinimy, Kareem El Damanhoury & Monerah Almahmoud (2020) Shifts in the visual media campaigns of AQAP and ISIS after high death and high publicity attacks. *Behavioral Sciences of Terrorism and Political Aggression* 13(4): 251–264.

Winter, Charlie (2018) Apocalypse, later: A longitudinal study of the Islamic State brand. *Critical Studies in Media Communication* 35(1): 103–121.

Winter, Charlie (2020) Framing war: Visual propaganda, the Islamic State, and the battle for east Mosul. *Cambridge Review of International Affairs* 33(5): 667–689.

Wolfsfeld, Gadi; Paul Frosh & Maurice T Awabdy (2008) Covering death in conflicts: Coverage of the Second Intifada on Israeli and Palestinian television. *Journal of Peace Research* 45(3): 401–417.

MATTEO CM CASIRAGHI, b. 1989, PhD in Political Science (University of Milan, 2020); Marie Skłodowska-Curie Global Fellow, University of Denver and University of Warwick (2022–); current main interest: international norms; most recent book in English: *The International Politics of Logos: Colours, Symbols, Cues and Identities* (Routledge, 2023 forthcoming).

EUGENIO CUSUMANO, b. 1985, PhD in Political Science (European University Institute, 2012); Fulbright Scholar, Korbel School of International Studies, Denver (2012–13); Assistant Professor, University of Leiden (2014–21); Associate Professor, University of Messina (2021–); most recent book: *Mobilization Constraints and Military Privatization* (Palgrave, 2023).