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Taking Hoaxes Seriously: Characteristics of Terrorism Hoaxes and their Perpetrators

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**TAKING HOAXES SERIOUSLY:
CHARACTERISTICS OF TERRORISM HOAXES
AND THEIR PERPETRATORS**

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ABSTRACT

The academic literature on terrorism has failed to accord serious attention to terrorist hoaxes; where they are acknowledged (in terms of inducing fear and draining financial resources), they are subsequently discounted since they do not pose a serious threat of bodily harm or property damage. This paper reviews existing literature and available cross-national data to outline the contours of hoaxes. Hoaxes are understood as a low-resource mode of low-severity terrorism, whereby perpetrators: 1) use benign materials to give the impression that a terrorist act is, or has been, underway (hoax devices); 2) threaten a future terrorist act, without the intention of actually carrying out this act (hoax warnings); 3) claim responsibility for incidents they did not cause (hoax claims of responsibility); or 4) exploit false claims or staged activities as a means to facilitating an act of “serious” terrorism (instrumental hoaxes). Using data drawn primarily from ITERATE and the Monterey WMD Terrorism Database, the paper also provides descriptive statistics to delineate the scope and nature of terrorist hoax activities worldwide; present preliminary profiles of hoax perpetrators; and highlight substantial inconsistencies in the ITERATE dataset itself. It concludes with an assessment of potential contributions that serious attention to hoaxes can provide to broader terrorism studies theory, approaches, and debates.



INTRODUCTION

The academic literature on terrorism has failed to accord serious attention to terrorism hoaxes. Theoretical and empirical academic works referencing hoax activity contribute only small fragments of the total picture, and significant gaps remain. In those rare cases where hoaxes are acknowledged, they are frequently discounted since they do not pose a serious threat of bodily harm or property damage. However, hoaxes *do* impose costs on governments and their populations in terms of inducing fear and draining financial resources. Because the costs of falsely identifying a serious attack as benign may be high, hoaxes must be treated as legitimate terrorist attacks until they are definitively uncovered as deceptions (see Enders and Sandler 2012, 72; Munroe 2009, 299; Ryder 2005, 50-56, 128). They thus place unnecessary strains on emergency responder capabilities (Dishman 2001, 311) and over-extend security service response units (Horgan and Morrison 2011, 650; Ryder 2005, 50, 128). Within the target population, a credible hoax generates widespread fear, and can cause almost as many socio-psychological outcomes as its “serious” analog (Dougherty, Green, and Harrington 2001; Giuffrida 1987, 75).

Although they may be meaningfully distinguished from “serious” terrorism—that is, those incidents where property damage, bodily harm, and death are possible direct outcomes—hoaxes are not exclusively the weapon of those who lack the desire or means to carry out serious attacks. The Scottish National Liberation Army (SNLA), the Earth Liberation Front (ELF), and Army of God are among those established terrorist groups who use hoaxes in addition to a range of serious tactics. Since successful counter-terrorism (CT) has been demonstrated to reduce the sophistication and complexity of terrorists’ attacks (Enders and Sandler 2012, 255), it is likely that the continuation of—and improvements in—effective CT will lead terrorists to rely more significantly on low-complexity tactics. In such a context, the frequency of hoaxes would likely increase, and the need to distinguish between hoaxes and serious attacks would become particularly important: a requirement that can only be pursued by according greater attention to past hoax activity.

This paper’s purpose is to review existing literature and available data to outline the con-

tours of hoaxes and their perpetrators, as a preliminary effort in developing a theory of hoaxes as a mode of terrorism. Using data drawn primarily from *International Terrorism: Attributes of Terrorist Events* (ITERATE) and the *Monterey WMD (Weapons of Mass Destruction) Terrorism Database* (herein WMDDDB) the paper:

- Introduces a working definition of hoaxes;
- Provides descriptive statistics to delineate the scope and nature of terrorist hoax activities worldwide;
- Presents preliminary profiles of hoax perpetrators; and
- Highlights substantial inconsistencies in the ITERATE dataset.

The paper concludes with an assessment of potential contributions that serious attention to hoaxes can provide for broader terrorism studies theory, approaches, and debates.

WHAT ARE TERRORISM HOAXES?

At the most superficial level, terrorism hoaxes are those incidents that are believed to be acts of serious terrorism, but do not actually involve any real risk of harm. The literature on terrorism hoaxes is sparse and fragmented, and only rarely includes definitions of what exactly hoaxes comprise. Where definitions are presented, they are often inconsistent and frequently conflated with related terms. To better interpret this literature, hoaxes writ large can be divided into four subcategories.¹ In order of the hoaxers' investment of resources, from lowest to highest, these are:

1. Hoax claims of responsibility – perpetrators claim responsibility for incidents they did not cause;²
2. Hoax warnings – perpetrators threaten a future terrorist act, without the intention to actually carry out this act;

¹ Hoax "device" and "warning" categories are used by Horgan and Morrison (2011), who appear to be the only other authors acknowledging subsets of hoax activity. However, they do not provide definitions or explain the difference between them; they simply contrast "hoax" devices with "viable" ones.

² For example, the Rajah Solaiman Islamic Movement (RSIM) claimed responsibility for an October 19, 2007, explosion in Makati City, the Philippines, but the police investigation later determined the blast to have resulted from an industrial accident (see Banlaoi 2009). Similarly, Mickolus (2002) discusses how "rejectionist Palestinian groups often claimed credit for virtually anything that went wrong in Israel—as such as explosions from faulty gas lines" (153).



3. Hoax devices – perpetrators use benign materials to give the impression that a terrorist act is, or has been, underway; and
4. Instrumental hoaxes – perpetrators exploit false claims or staged activities as a means of facilitating an act of “serious” terrorism.³

Since hoaxes do not actually involve the carrying out of the violent act, they have been treated in the literature as low-severity terrorism,⁴ with a low resource input requirement.⁵ There is frequent ambiguity in the literature surrounding hoaxes’ distinction from other forms of “non-serious” terrorist-related activities, notably threats, pranks, and false alarms, which are equally ill-defined in the literature, but differ in their degree of intentionality and scope of intended harm.⁶

Hoax-able Tactics

While there is ambiguity surrounding the definition of hoaxes, the sources that acknowledge hoaxed acts consistently characterize them as a specific tactic or method of terrorism (Aguirre 2009, 47; Enders, Sandler and Cauley 1990; Horgan and Morrison 2011; Richards 2014, 222). As a tactic, however, hoaxes have an ambiguous relationship with other methods of terrorism—especially from the perspective of emergency responders: a terrorist bomb hoax *is* a hoax, but until it is uncovered as such, it must be treated as a *real* terrorist bombing (see Enders and Sandler 2012, 72; Munroe 2009, 299; Ryder 2005, 50-56, 128).

3 Murray (1984), for instance, describes a Provisional Irish Republican Army campaign where terrorists made hoax telephone calls to law enforcement authorities reporting “crimes” as a means of luring police officers to a place where they could then be discriminately killed. In some cases, the IRA actually staged crimes to hoax police officers into response.

4 In Prunckun Jr. and Mohr (1997), methodological details describe how the authors rated terrorist tactics, including hoaxes, in terms of their level of severity. Eighteen independent, adult judges drawn from various professional and nonprofessional backgrounds were asked to rate each terrorist tactic on a ten-point scale “for its perceived severity as an act of violence” (272). The authors then converted the mean ratings into standard scores and trichotomized them into classifications of high-, medium-, or low-severity. Hoaxes scored in the low-severity category, along with arms smuggling, conspiracy, occupation, threat, and theft. In Horgan and Morrison (2011), hoax bombings are distinguished from “all types of violent activity, both high level and low level” (660), implying that hoaxes are so mild that they would not even figure on a continuum of violence.

5 In Enders, Sandler, and Cauley’s (1990) words, hoaxes “do not really use up resources” (101). Accordingly, dramatic changes in the frequency of hoaxes “can occur at the will of terrorists” (Enders and Sandler 2012, 73).

6 Hoaxes are distinct from—although frequently conflated with—forms of non-serious terrorist-related activities, such as threats, with which perpetrators actually have the intent and/or capability of following through; pranks, which differ from hoaxes in their degree of intended influence; false alarms, where benign occurrences are perceived as threatening by the public and/or responders; or unsuccessful or failed “serious” attacks, where a serious attack is thwarted by the authorities or impeded by faulty operational or tactical practices within the terrorist group.

Almost any type of serious terrorist activity can also be hoaxed, from biological attacks involving “white powder” letters, to product contamination incidents, to bombs and explosions, and even assassinations and hostage scenarios. The vast majority of academic references to hoaxes in the terrorism literature are examples of specific hoax activities.

The most commonly hoaxed tactic discussed in the literature is a biological attack whereby a substance, usually said to be anthrax, is delivered by mail to the targeted victim (see Donohue and Kayyem 2002, 5; Erickson and Barratt 2004; and McCauley and Moskalenko 2014, 75). Product contamination hoaxes, supposedly involving various forms of chemicals and poisons, are also present in the literature.⁷ Although discussed to a far lesser degree, and usually as a hypothetical case, nuclear hoaxes also occur.⁸ The potential high costs of viable chemical, biological, radiological, and nuclear (CBRN) devices make these types of hoaxes particularly likely to inflict broad-based fear, and to garner serious attention from responders and policymakers.

Hoax bombs and explosions are the second-most discussed hoaxed tactic in the literature. Bomb hoaxes may comprise hoax devices,⁹ hoax warnings,¹⁰ or hoax claims of responsibility.¹¹ Arson hoaxes are also addressed within the literature as a possibility, but with no confirmed cases.¹²

Lentini and Bakashmar (2007) present examples of two less frequently—and more imaginatively—hoaxed tactics: an assassination and a hostage scenario. The assassination hoax involved

7 Monaghan (2000, 258-259; 2013, 936) discusses a 1984 Animal Liberation Front product contamination hoax involving Mars Bars, as well as other contamination threats like mercury in turkeys and toothpaste, spiked baby oil, and bleach in shampoo. Leman-Langlois and Brodeur (2005, 128) discuss product contamination hoaxes in Canada, intended to protest the South African Apartheid government, by claiming to have poisoned South African fruit; and hoaxes perpetrated by Direct Action, who claimed to have poisoned bottles of wine.

8 Jenkins (1983) writes that, since 1970, there had been approximately sixty nuclear threats against American cities, most of which were extortion threats (i.e. hoax warnings); writing only three years later, Beckman (1986) claims that over one hundred nuclear hoaxes had already taken place (360).

9 As an example of intra-group hoax bomb devices, Monaghan (2000) discusses the Animal Liberation Front’s use of hoax letter bombs against individuals suspected of being informers (260). As an example of a single actor hoax bomb device, Nesser (2012) discusses the hoax bomb device placed by Dutch-British “wannabe” jihadist Nicholas Roddis on a United Kingdom bus in 2007 (66, 72).

10 Enders and Sandler (1991) discuss the ETA campaign against foreign tourists in Spain, beginning April 26, 1985, where the group made hoax warnings of three bombs at tourist hotels. The group did eventually bomb hotels, but months later, and seemingly not in connection with their earlier hoaxes. Breemer (1983, 455) and Kashubsky (2011, 141) discuss the anonymous hoax phone calls received by the Philips Petroleum Company in Yarmouth, England, that delayed-action fuses had been attached to underwater charges of offshore production platforms. The platforms were evacuated, and nearly \$500,000 USD in costs were incurred prior to the incident’s identification as a hoax two days later.

11 Banlaoi (2009) discusses the hoax claim of responsibility by the Rajah Solaiman Islamic Movement (RSIM), who claimed responsibility for an October 19, 2007 blast in Makati City, Philippines, which was later determined to be the result of an industrial accident (64; 73).

12 Joyner’s (1990) discusses the fire at Libya’s Rabta chemical factory on March 14, 1990, which may have been a false alarm, a hoax, or an incidence of foreign sabotage.



supposed video evidence from the Badr Brigade showing members disguised as the Iraqi National Guard beheading Bahjat Atwar, an Iraqi journalist. The incident was uncovered as a hoax when it was discovered that the video was actually a two-year-old image of a Nepalese citizen's execution (320). The hostage hoax occurred when the Mujahideen Brigades posted a photo online of an African-American soldier, "John Adams," and claimed that they would behead him; the incident was uncovered as a hoax when it was determined that the soldier in the photo was really an action figure (322).

In all of these cases, the hoaxes in question corresponded to a specific tactic of serious terrorism. The immediate responses to the hoax involved the same reactions that actors would have in response to a real incident. For instance, a 1984 Mars Bars product contamination hoax cost the company an estimated \$9 million USD (Monaghan 2000, 258-259; 2013, 936), and Clayton Waagner's 2001 anti-abortion anthrax letter hoax campaign "seriously disrupted" clinic operations (McCauley and Moskalenko 2014, 75). The hoax label is only applied to these incidents *ex post*, when the act's incorporeality is uncovered. For responders, policymakers, and affected citizens, immediate reactions are a function of the hoax's serious terrorism counterpart, not its hoaxed quality.

Hoaxes as a Mode—not a Tactic—of Terrorism

While different sources emphasize different hoax categories or hoaxed tactics, one consistency in the literature is that hoaxes themselves are characterized as a specific tactic or method of terrorism (Aguirre 2009, 47; Enders, Sandler and Cauley 1990; Horgan and Morrison 2011; Richards 2014, 222). Classifying hoaxes as a tactic, however, obscures the relationship between hoaxes and the serious terrorism act of the corresponding kind.

Given the wide range of terrorist acts that can be hoaxed, it is this author's contention that terrorist hoaxes themselves should be treated as a mode rather than a tactic of terrorism. In other words, rather than being viewed as an alternative type of terrorist event, the hoax label refers to the "way or manner in which a thing [i.e. a terrorist act] is done" (*Concise Canadian Oxford Dictionary*, 2005 ed., s.v. "mode"). "Hoax" can therefore be applied in the same way that "suicide"

has been applied to describe certain types of terrorist activity (e.g. a suicide bombing, a suicide skyjack mission, etc.). The specific tactic, for instance, is a bombing, but it can be carried out by a perpetrator whose death is integral to the mission's completion (i.e. a suicide bombing), or by a perpetrator who uses benign materials to give the impression that a bomb has been placed (i.e. a hoax bombing device).

This distinction is not just one of semantics. Because hoaxes initially generate the same responses as their corresponding serious tactics, it is essential to consider them in relation to—rather than as alternatives to—these serious tactics, if one is to fully appreciate the tactic's societal impact. More importantly, and discussed in greater length below, the distinction between “tactic” and “mode” helps to resolve significant coding challenges in terrorism events datasets.

THE DATA: HOW WE KNOW WHAT WE KNOW ABOUT HOAXES

Not all terrorism data sources provide information on hoaxes. For instance, the *Global Terrorism Database* (GTD)—often recognized as the world's most comprehensive terrorism dataset—does not include hoaxes as a possible event or weapon type (START 2013b). It explicitly excludes foiled and failed plots, as well as “threats to act where no action is taken” (START 2013a) due to its requirement that coded attacks “must actually be attempted to qualify for inclusion in the database.” Similarly, the methodology of the *Worldwide Incidents Tracking System* (WITS)—active 2005 through 2012 under the National Counterterrorism Centre (NCTC)—required that terrorists “must have initiated and executed an attack [...] result[ing] in some sort of active, kinetic effect—such as an explosion or inflicted injury or damage” for inclusion in the dataset (NCTC 2012, 7). Hoaxes—along with failed and foiled attacks, spontaneous hate crimes, and genocide—are explicitly excluded.

The two cross-national terrorism databases that explicitly *do* code for hoaxes are the WMDDDB (the world's most comprehensive open-source data set on CBRN terrorism events) and ITERATE (the most frequently-cited dataset on transnational terrorist activities). In the WMDDDB (Monterey Terrorism Research and Education Program 2012), hoaxes are specifically coded for as a “type of event,” and applies to those cases where, “although use was threatened, the threat



was not credible, or an ‘empty threat’” (Cameron et al. 2000, 158).¹³ Like the WMDDDB, ITERATE (Mickolus et al. 2011a) codes for hoaxes as a “type of incident” in the common file of all incidents (Mickolus et al. 2011b). Incidentally, it is the only of the twenty-five listed incident types for which an accompanying description is provided: “e.g., claiming a nonexistent bomb.” It is distinct from “threat with no subsequent terrorist action.” Hoaxes are also implied in the sky-jack-specific file, as an option for “type of weapon used.” In this file, incidents involving hoaxed weapons and those involving no weapons are conflated.

Challenges with Hoax Data

Terrorism datasets, in general, are plagued with many challenges (see Mickolus 2002, 151-154; Sheehan 2012), especially those based on open source media accounts (Erickson and Barratt 2004, 3). With respect to hoaxes, these challenges are particularly acute.

Hoaxes are likely underreported in the media (Dahl 2011, 625; Giroux, Burgherr, and Melkunaite 2013, 120; Horgan and Morrison 2011, 650; Iglarsh 1989, 65; Ross 1988, 219). First, media sources may be uninterested in such non-lethal incidents (Horgan and Morrison 2011, 650), unless they have serious economic consequences (Enders and Sandler 2012, 73). Second, the victims of hoaxes—especially businesses and owners of critical infrastructure—have an incentive to keep confidential any threats to their assets (Giroux, Burgherr, and Melkunaite 2013, 120). ITERATE, specifically, may have experienced an underreporting of hoaxes since mid-1996, the point at which the Foreign Broadcast Information Service (FBIS) *Daily Reports*—which had included threats and hoaxes not present in other sources—became unavailable to ITERATE coders (Enders and Sandler 2012, 73).

In addition to the underreporting of hoax events themselves, missing data presents a major challenge (Iglarsh 1989, 65). With respect to hoaxes, questions of attribution—and *certainty* of attribution—affect how incidents are coded (Mickolus 2002, 153). For instance, if a group makes a hoax claim of responsibility, it would presumably be reported—and thereby coded—as a real attack perpetrated by that group until evidence comes to light that the group’s claim was a hoax.

¹³ The Center for Nonproliferation Studies (CNS) at the Monterey (now Middlebury) Institute of International Studies does not publish its own codebook; Cameron et al. (2000) is the most thorough published source of information on the dataset’s methodology.

Table 1 (column D) shows how perpetrators are identified for less than half of the events coded in large- n datasets, with an even weaker identification record for hoaxes than the sample of all incidents.

There are also limitations with respect to the scope of hoax activity captured in existing datasets. While ITERATE and the WMDDDB do code for hoaxes, neither dataset covers domestic incidents using conventional weapons (a likely large portion of overall terrorist activity, given the more than ten-fold number of incidents coded in GTD as compared with ITERATE or the WMDDDB). Although it speaks only to the Canadian context, the *Canadian Incident Database* (CIDB), publicly launched in May 2015, is particularly useful for highlighting the degree of hoax under-reporting in these cross-national datasets. Table 1 also shows the number of hoaxes relative to all terrorist incidents coded in each of the three datasets, in their full cross-national samples (columns A and B, for ITERATE and the WMDDDB), as well as the incidents coded as Canada-specific (column C). Canadian hoaxes account for eight of the 322 transnational hoaxes coded in ITERATE, and thirty-nine of the CBRN hoaxes coded in the WMDDDB. The CIDB contributes an additional 191 hoaxes, demonstrating the significant degree to which the cross-national datasets fail to capture the full scope of hoax activity in each individual country.

The CIDB's success in this area is partially attributed to its explicit and intentional inclusion of hoaxes (coded as a "yes"/ "no" indicator variable) from the beginning of data collection. The coders accepted the broad definition of hoaxes provided in this working paper, including all four possible hoax sub-categories, allowing for a broad scope of identifiable events. The CIDB's success is further attributed to the wide range of data sources that its coders consulted in the data contribution process. In consulting reliable sources beyond media reports, the CIDB circumvents some of the challenges with hoax data present in other terrorism events databases.



TABLE 1. THE FREQUENCY OF HOAXES (AS COMPARED WITH ALL INCIDENTS) IN ITERATE, WMDDDB, AND CIDB

	(A) FULL CROSS-NATIONAL SAMPLE		(B) POLITICALLY/ IDEOLOGICALLY- MOTIVATED ONLY		(C) CANADIAN SAMPLE ¹⁴		(D) INCIDENTS WITH PERPETRATOR GROUP IDENTIFIED ^{15 16}	
	ALL INCIDENTS	HOAXES ONLY	ALL INCIDENTS	HOAXES ONLY	ALL INCIDENTS	HOAXES ONLY	ALL INCIDENTS	HOAXES ONLY
	ITERATE	13327	322	-	-	54	8	6380
WMDDDB (beginning 1968) ¹⁷	1718	796	1030	370	46	39	358	16
CIDB	-	-	-	-	1821	238	851	33

THE EMPIRICAL LITERATURE: WHAT IS ALREADY KNOWN ABOUT HOAXES

As with data sources, the empirical literature on terrorism includes a handful of studies that explicitly exclude hoaxes from the analysis,¹⁸ but—fortunately—there is a greater number of studies that explicitly include them. These studies use data from ITERATE and the WMDDDB, as well as other, less-well-known, sources of statistical and qualitative data. Other studies may exist

14 For the WMDDDB, the figures presented here exclude criminally-motivated incidents. When criminal incidents are included, the numbers rise to fifty-nine events total occurring within Canada, of which forty-nine are hoaxes/pranks. For ITERATE, these figures cover only the “location end” variable. For CIDB, incidents occurring outside of Canada but with Canadian perpetrators, victims, or targets, have not been culled.

15 In ITERATE, some group names are coded in situations where they do not represent designated groups (e.g. “criminals,” “no group involved,” “unknown,” as well as various categories of “indeterminate” nationals, “agents,” “rebels,” “sympathizers,” and “students” of a given country). All those perpetrators without ambiguous descriptors as group names have been excluded from this count and the “number of perpetrator groups.” This culling removes 312 incidents from the sample with a populated field for “perpetrator.”

16 In CIDB, individuals’ names are recorded in the perpetrator name field, in addition to some general categories (as in ITERATE). These are culled from the sample in this and the “number of perpetrator groups” categories; it removes 175 incidents from the sample with a populated field for “perpetrator.”

17 The original WMDDDB sample included two duplicates that have been removed in these counts: event IDs #1219 and #1543 refer to the same incident (although the coded information varies across the two entries), and #862 is part of a larger campaign that is summarized in #838 (the October and November 2001 anthrax hoax letter campaign targeting United States abortion clinics).

18 For instance, Asal, Ackerman, and Rethemeyer (2012) exclude “hoaxes, pranks, and groundless threats involving CBRN weapons” (237) from their examination of the factors that influence the terrorist organizational decision to pursue CBRN weapons; they do not explain their data culling decision, but it can be assumed that hoaxes, pranks, and groundless threats are eliminated because they do not reflect the *actual pursuit* of CBRN weapons by the organization. In a study examining the relationship between regime characteristics and the likelihood of CBRN terrorist incidents, Ivanova and Sandler (2006) cull from their sample those instances where there is no evidence of CBRN agent possession; this means they exclude “plot only” incidents as well as threats without possession, hoaxes, and pranks (427). They do not provide an explanation for this culling. Ivanova and Sandler (2007) make the same culling decision, but this time present a justification: “Such incidents are removed from our sample, because they do not really represent a CBRN risk even though they may result in inconvenience and costs” (276).

that subsume hoaxes in their general findings, but they do not accord any specific attention to hoaxes in their description of the data and/or findings, and so they are not relevant to furthering knowledge about hoaxes as a distinct mode of terrorism.

The three studies relying on ITERATE data were all published in the 1990s. In the first article, Enders, Sandler, and Cauley (1990) use intervention analysis to assess substitution between different types of terrorist activity over the observation period 1968-1988. They find that, following the United States' 1986 retaliatory raid against Libya, there was a brief surge in terrorist activity and then a sustained reduction in resource-intensive terrorism incidents. When resource-intensive terrorism declined, however, there was a substitution toward hoaxes and threats, which require few inputs.

Similarly, Prunckun Jr. and Mohr (1997) use ITERATE data, supplemented with James P. Wotton's chronology of terrorist events involving Americans and United States (US) property abroad, to study the frequency and severity of international terrorism in relation to the US raid against Libya. Although the authors consider twenty-three common types of terrorist events, of which hoaxes are one, they do not examine any of them individually; instead, they deduce a methodology to classify each event as high-, medium-, or low-severity terrorism. Hoaxes rank second lowest in the low-severity classification. Similar to Enders, Sandler, and Cauley (1990), the authors observed a substantial shift toward terrorist activities of lesser severity following the US raid against Libya.

Enders, Parise, and Sandler (1992) conduct a time series spectral analysis to identify trends and cycles in transnational terrorism between 1970 and 1989. The authors include time series dedicated to each of the following categories: all incidents, hostage incidents, bombings, assassinations, and "threats and hoaxes." For each of the series, the authors identify cycles of different lengths. Threats and hoaxes had the shortest cycle (only 3.6 quarters), which demonstrates the authors' more general finding that the logistical complexity of an attack type is positively related to cycle length. Since 3.6 quarters is roughly equivalent to a one-year cycle, the authors propose that threats and hoaxes may have a seasonal component: "seasonal factors, such as high tour-



ism in the summer months, may account for the cyclical behaviour of the Threats [and Hoaxes] series” (Enders, Parise and Sandler 1992, 316). However, their analysis suffers from a fallacy of division: the cycles exist across the entire sample of ITERATE data—it does not take into account which groups are hoaxing or conducting serious attacks and when. It may be that the relative frequency of hoaxes is affected by a larger number of hoaxing groups or individuals than by specific groups choosing to hoax more frequently rather than conduct serious attacks. The authors also discuss cycles in relation to the interconnection of methods. Their often-cited finding that the installation of metal detectors in airports curbed skyjackings also had follow-on effects—“threats and hoaxes became less credible in [such] situations and, hence, were curtailed” (308). Therefore, in addition to a substitution effect, there is also a complementarity effect within specific target environments when hoaxes, as a mode of terrorism, are carried out.

The two identified studies that rely on WMDDDB data are more current than those that use ITERATE, and—by virtue of their primary data source—emphasize CBRN terrorism.¹⁹ Rowlands, Littlewood, and Kilberg (2012) combine WMDDDB data with that of GTD to contribute a set of explanatory variables that help to distinguish between the likelihood of CBRN use over conventional weapons. They also describe differences between CBRN hoaxes and non-hoaxes, finding that strongly religious terrorist groups, and those organized in a “hub-spoke” structure, are more likely to perpetrate hoaxes over serious attacks. Although they identify these group-based characteristics for hoaxes, they recognize that hoaxes are twice as likely to be perpetrated by individuals than by terrorist groups.

In Tishler (2013), multinomial logit regression using chemical, biological, radiological, or nuclear as a categorical dependent variable is used to test the technological determinism assumption that the more readily accessible CBRN technology, materials, and knowledge are to terrorists, the more likely the terrorists will be to use unconventional weapons of the corresponding kind. The study tests the technological determinism hypothesis on the full sample of WMDDDB incidents, and then compares a stratified sample of serious attacks with that of hoaxes. While it was expected that technological determinism would be stronger for serious attacks—since they

¹⁹ Two other sources (Cameron 1999; and Cameron et al. 2000) used WMDDDB data as the basis for descriptive statistics on CBRN terrorism, but did not employ econometric techniques.

actually require materials, and hoaxers are unconstrained by reality—the regression results showed the opposite: “the widely held technological deterministic hypothesis, while seemingly false for perpetrators of serious attacks, appears to be internalized by hoaxers and pranksters who may draw on the availability of technology and knowledge to make their claims and acts more believable” (66). This finding poses a particular challenge to policymakers, who are also inclined to believe the technological determinism hypothesis; if hoaxers and policymakers are both informed by the same logic, then hoaxes conforming to this hypothesis will be viewed by policymakers as more plausible and credible (67).

Empirical Findings Based on Alternative Data Sources

There are also studies addressing hoaxes that rely on data sources other than ITERATE and the WMDDB. Horgan and Morrison (2011) use data from the open-source-based Violent Dissident Republican Project at Pennsylvania State University’s International Center for the Study of Terrorism. Examining Violent Dissident Republican (VDR) activity in Northern Ireland between 1997 and 2010, the study finds that hoax devices and warnings increased substantially as of 2009. They identify hoax incidents as the third most common VDR activity in 2010, only minimally trailing shootings and punishment attacks, and defused bomb incidents. Hoax incidents were marginally more common than detonated bomb incidents, and substantially more frequent than petrol bomb incidents, assaults, violent riots, arson riots, violent robberies, and other types of VDR activity (651).

Leman-Langlois and Brodeur (2005) also include hoaxes in their database, which is a narrative-based qualitative dataset regarding terrorism in Canada between 1973 and 2003. While the authors explicitly intend to consider acts together, rather than as discrete events as incident-based datasets do, they present some count data “for the more quantitatively inclined” (123). Of a total of 400 entries, they identify seventy-three “disruptive hoaxes,” along with fifty-nine “threats,” and fourteen “plots and failed attacks” (123). While they use these distinct categories, they do not define how they differentiated between them in their classifications.

Hoaxes have also been addressed in two studies using case study analysis. McCauley and



Moskalenko (2014) present a case study comparison of lone wolf terrorists in an attempt to profile them. One of the cases they include in their comparison is Clayton Waagner, who committed a large-scale anthrax letter hoax campaign, but never actually crossed the threshold into violent terrorist action. Examining their cases in relation to two pyramid models of radicalization, one for violent opinion and the other for violent action, they suggest that he moved from the apex of the opinion pyramid to that of the action pyramid when he began “stalk[ing] abortion providers with the intention of killing them,” but then moved down the action pyramid to continue his fight by harmless means (i.e. hoaxing) when he “could not pull the trigger” (76).²⁰

Tucker (2000) presents an edited compilation of various chemical and biological terrorism incidents. While none of the historical case studies deals exclusively with hoaxes, Tucker addresses them explicitly in the key observations he draws from the multi-case methodology. He concludes that elaborate and plausible hoaxes “should not be dismissed as irrelevant to CBW terrorism,” but that simple and implausible attacks like anthrax letter hoaxes “are more of a nuisance than a serious danger” (254).

DATA ANALYSIS: THE SCOPE AND NATURE OF TERRORIST HOAX ACTIVITIES WORLD-WIDE

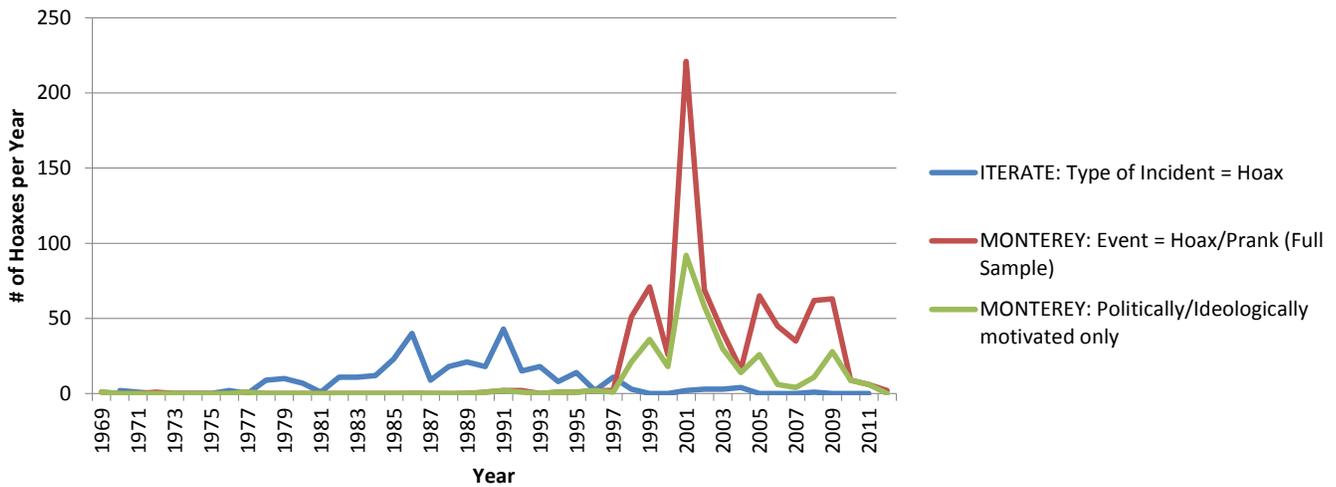
This section presents descriptive statistics to define hoaxes empirically, as they exist in the two cross-national datasets that presently code for them: ITERATE and the WMDDDB. Far from eschewing the challenges with hoax data explained above, this section also seeks to highlight inconsistencies and ambiguity in these data sources’ treatment of hoaxes.

When Do Hoaxes Occur?

Figure 1 shows the number of hoaxes per year coded in both ITERATE and the WMDDDB (including a series for the full sample of hoaxes, and one for true “terrorist” hoaxes, i.e. those with political or ideological motivation). The two WMDDDB series demonstrate that terrorist hoaxes follow the same trends as criminal and other hoaxes. In contrast, the discrepancy between the hoaxes covered by the ITERATE and WMDDDB series is drastic.

²⁰ The opinion radicalization pyramid progresses from “personal moral obligation” at the apex, to justifiers, sympathizers, and ultimately a “neutral” base (McCauley and Moskalenko 2013, 71). The action radicalization pyramid progresses from terrorists, at the apex, to radicals, activists, and ultimately an “inert” base (73).

FIGURE 1. HOAX FREQUENCY IN ITERATE AND WMDDDB



While ITERATE’s transnational hoaxes occurred predominantly between the late-1970s and mid-1990s, the CBRN hoaxes in the WMDDDB occurred mostly from the late 1990s to the end of the 2000s. The only empirical studies using ITERATE data were published in the 1990s, and so while they help to explain the shift toward hoaxes by the substitution away from resource-intensive terrorism after the US retaliatory raid on Libya (Enders, Sandler, and Cauley 1990; and Prunckun Jr. and Mohr 1997) and the complementary effects of certain counter-terrorism measures that would make hoaxes less credible (Enders, Parise, and Sandler 1992), the near extinction of transnational hoaxes that occurred after the 1990s is beyond their scope. The observed drop-off in transnational hoaxes is likely a function of the fact that, after mid-1996, the FBIS Daily Reports were unavailable to ITERATE coders (Enders and Sandler 2012, 73). This coding challenge, however, does not explain the lack of CBRN hoaxes until that point. The initial peak in the WMDDDB series reflects the late-1990s wave of chemical and biological weapons hoaxes and their causes discussed in Tucker (2000, 3, 246) and Dishman (2001, 311). The spike in 2001 reflects the surge in post-9/11 anthrax letter hoaxes. That the bulk of hoaxes in each dataset diverge so significantly implies that transnational hoaxes are unlikely to involve CBRN weapons, and that CBRN hoaxes are unlikely to be transnational in nature.²¹

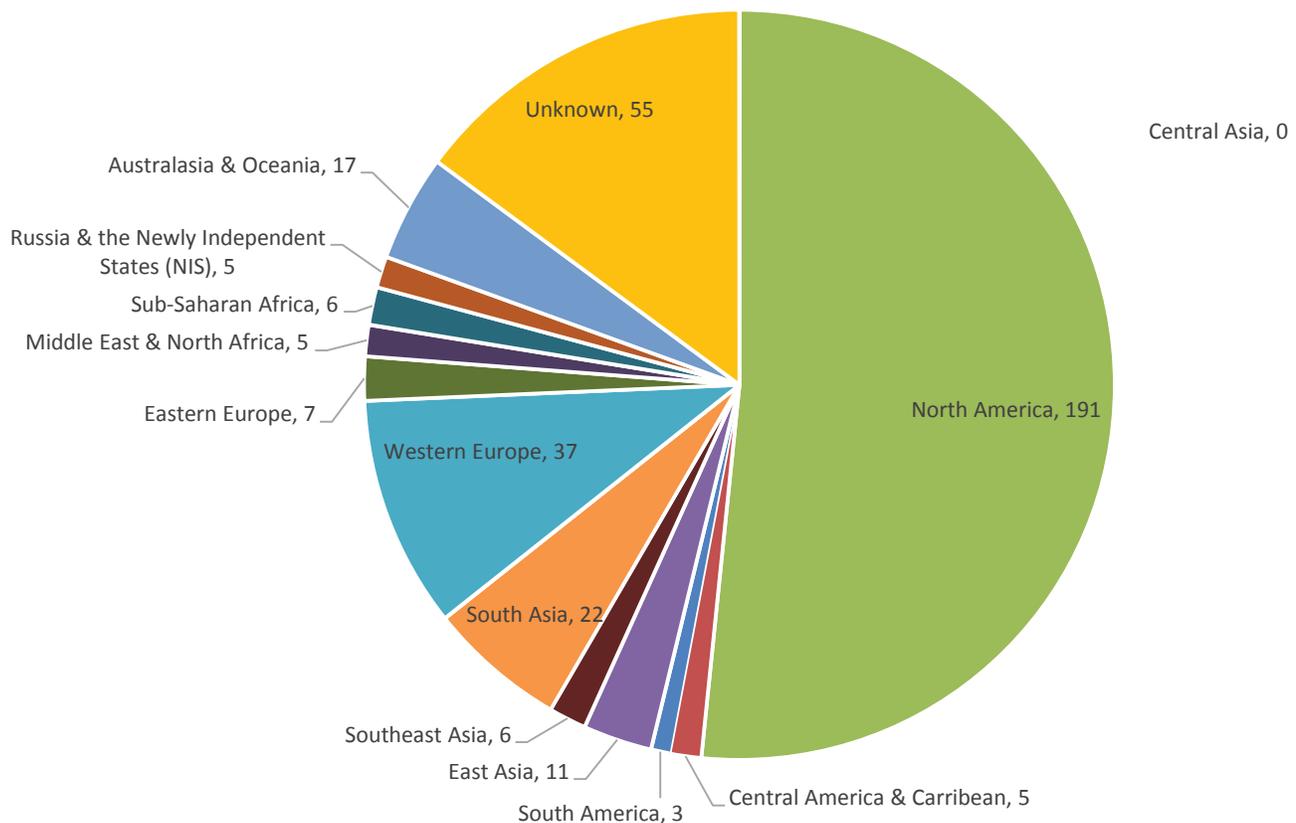
21 Since the WMDDDB does not rely on the FBIS Daily Reports for coding, if transnational CBRN hoaxes had been perpetrated, they would have been captured by ITERATE coders using the same open sources as the WMDDDB.



Where Do Hoaxes Occur?

Figures 2 and 3 present the geographic distribution of all terrorist hoaxes in the WMDDDB and ITERATE, respectively, according to the GTD's regional classifications (START 2013b) of hoaxes' end-points.

FIGURE 2. CBRN HOAXES AND PRANKS BY REGION, 1969-2012²²

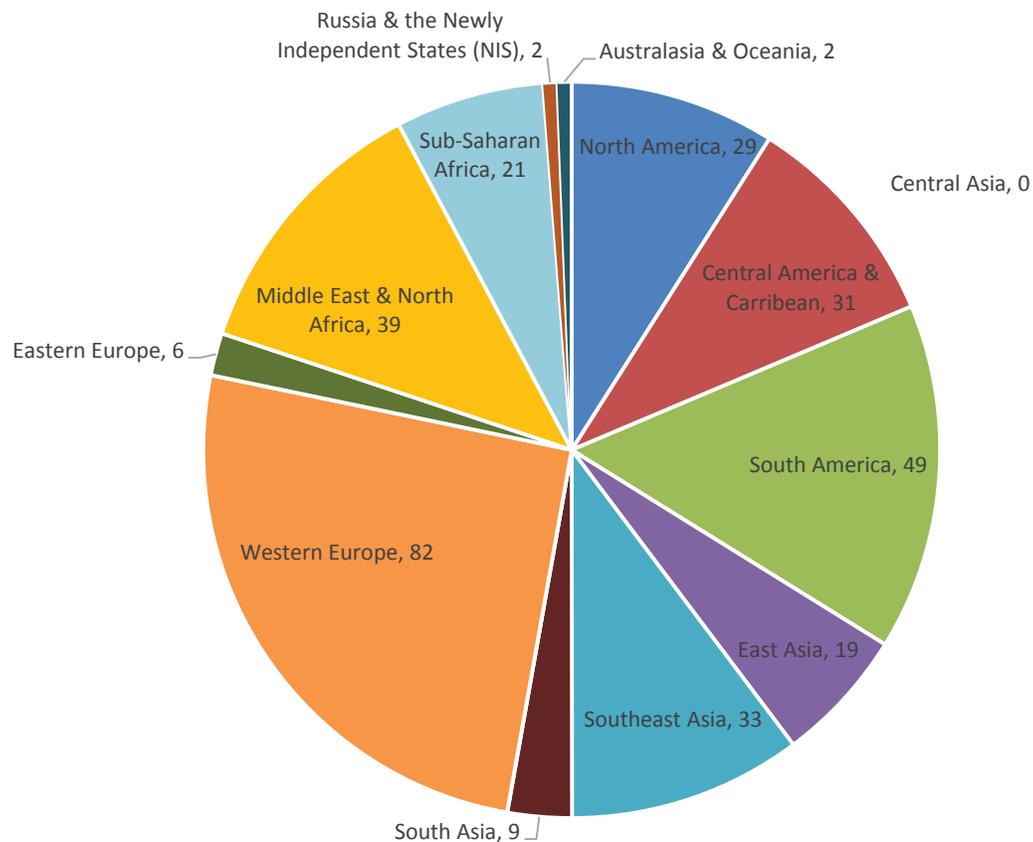


In absolute terms, CBRN hoaxes are predominantly an American phenomenon; of the 191 terrorist hoaxes in North America—which, combined, account for more than half of the WMDDDB's terrorist hoax sample—153 were committed in the US. That CBRN hoaxes are so strongly geographically concentrated appears to corroborate the finding by Cameron et al. (2000) that “the fear of WMD terrorism and the publicity associated with each incident within the US have strengthened the likelihood of more incidents” (159). The geographic distribution of trans-

²² Data drawn from the WMDDDB; data labels reflect absolute number of politically and ideologically motivated hoax and prank incidents.

national hoaxes (Figure 3) is far less telling. The largest proportion (one quarter) of transnational hoaxes occurred in Western Europe, but the remaining three quarters of incidents are relatively evenly dispersed. Worthy of acknowledgment is the relative infrequency of transnational hoaxes in Russia and the Newly Independent States, as well as Australasia and Oceania.

FIGURE 3. TRANSNATIONAL HOAXES’ END LOCATION BY REGION, 1969-2011²³



Neither CBRN nor transnational hoaxes occurred in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan). While this absence of hoaxes may be reflective of a true reluctance to use hoaxes in this region, it may also be an artifact of the datasets’ reliance on media reports for gathering data; Central Asia is also the lowest-ranked region in both datasets for non-hoax incidents. In the 2011-2012 Reporters Without Borders “Press Freedom Index,” these Central Asian countries all rank in the lowest 40% of countries with regard to “government respect of media freedom.” Given governmental incentives to keep information about vulnera-

²³ Data drawn from ITERATE; data labels reflect absolute number of hoax incidents.



bilities quiet, it is likely that media in these un-free countries would be particularly unlikely to receive and/or be able to print details about terrorist events in their news outlets.

To account for such systematic biases in the datasets' inclusion of events as well as varying levels of overall terrorist activity across regions, it is instructive to consider the proportion of hoaxes in each region's overall terrorist activity, in addition to the absolute frequency of hoaxes described above. Figure 4 compares the absolute numbers of transnational hoaxes (left axis) with the percent of hoaxes among all transnational terrorist activity (right axis) in each region. While Western Europe experienced the highest overall number of hoaxes ($n=82$), the proportion of hoaxes in its overall transnational terrorist activity (2.1%) was lower than the cross-regional average (3.1%). Conversely, the region experiencing the highest proportion of hoax activity was East Asia (9.3%), despite ranking eighth in absolute number of hoaxes (see Table 2 for ranking comparisons), and accounting for less than 6% ($n=19$) of all hoaxes worldwide. That the regions experiencing higher proportions of hoax activity are not for the most part also those regions experiencing higher overall levels of terrorism (North America is the exception, ranking fifth for both overall levels of terrorism as well as the proportion of hoaxes among all terrorist activity, at 3.5%)²⁴ suggests that there is some qualitative difference among regions that would lead some to be more attractive hoax targets than others.

Similar inconsistencies present themselves for CBRN hoaxes, as illustrated in Figure 5. While North America experiences the vast majority of CBRN hoaxes, it also experiences a greater proportion of non-hoax CBRN activity than other regions. While Eastern Europe and Central America experience far lower frequencies of both hoaxing and serious CBRN incidents, as compared with North America, they rank in first and second place respectively for the proportion of hoaxes as a percentage of overall CBRN activity. Australasia and Oceania (53.1%), South Asia (33.8%), and Sub-Saharan Africa (31.6%) also rank above the 30% cross-regional average for hoaxes as a percent of overall CBRN terrorist activity.

²⁴ The regions experiencing higher than average proportions of hoaxes—from highest to lowest—were East Asia (9.3%), Southeast Asia (5.0%), Central America and the Caribbean (3.9%), Eastern Europe (3.6%), and North America (3.5%).

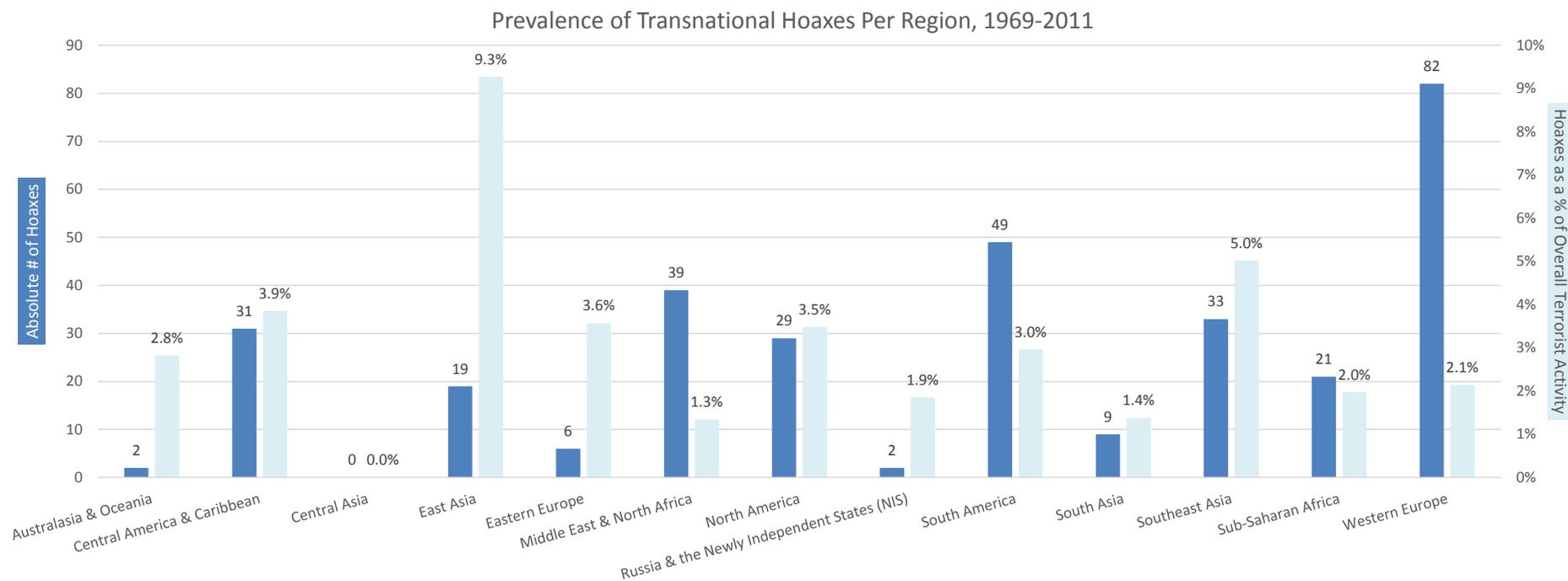
TABLE 2. REGIONAL RANKINGS FOR CBRN AND TRANSNATIONAL HOAX AND OVERALL TERRORISM PREVALENCE

	# OF CBRN HOAXES	# OF CBRN NON-HOAXES	TOTAL # OF CBRN INCIDENTS	HOAXES AS A % OF OVERALL CBRN TERRORIST ACTIVITY	# OF TRANSNATIONAL HOAXES	# OF TRANSNATIONAL NON-HOAXES	TOTAL # OF TRANSNATIONAL INCIDENTS	HOAXES AS A % OF OVERALL TRANS-NATIONAL TERRORIST ACTIVITY
Australasia & Oceania	4	9	8	4	12	12	12	7
Central America & Caribbean	9	12	12	2	5	6	6	3
Central Asia	13	13	13	13	13	13	13	13
East Asia	5	4	5	9	8	9	9	1
Eastern Europe	6	11	11	1	10	10	10	4
Middle East & North Africa	11	3	3	12	3	2	2	12
North America	1	1	1	3	6	5	5	5
Russia & the Newly Independent States (NIS)	10	5	6	11	11	11	11	10
South America	12	8	9	10	2	3	3	6
South Asia	3	6	4	5	9	7	8	11
Southeast Asia	7	7	7	8	4	8	7	2
Sub-Saharan Africa	8	10	10	6	7	4	4	9
Western Europe	2	2	2	7	1	1	1	8

More broadly, a comparison of Figures 4 and 5 highlights the nearly ten-fold higher prevalence of hoaxes among general CBRN terrorist activity (30% cross-regional average) as compared with transnational terrorist activity (3.1% cross-regional average). Evidently, there is something in the nature of CBRN terrorism that makes it particularly prone to hoaxing.



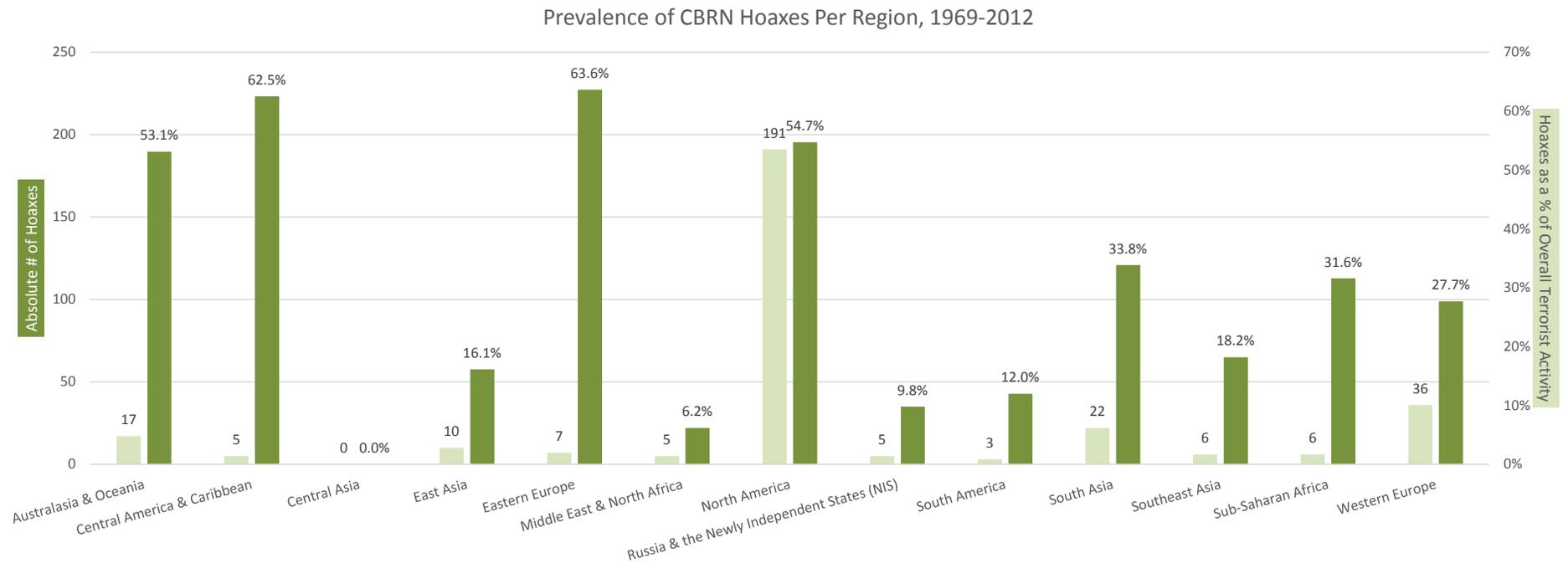
FIGURE 4. PREVALENCE OF TRANSNATIONAL HOAXES PER REGION, 1969-2011 ²⁵



²⁵ Data drawn from ITERATE, based on coding for each incident's location end.



FIGURE 5. PREVALENCE OF CBRN HOAXES PER REGION, 1969-2012 ²⁶



²⁶ Data drawn from the WMDDDB's sample of politically and ideologically motivated incidents.



What Kinds of Hoaxes Occur?

Of the 1,040 politically- or ideologically-motivated CBRN events recorded in the WMDDDB, hoaxes and pranks account for the greatest proportion (370 incidents, or 36%), followed by use of agent (261 incidents, or 25%). Figure 6 compares the CBRN weapon type most frequently used in each of these event types, while Figure 7 compares the delivery mechanisms of CBRN agents employed in hoaxes and pranks with actual uses of the agent.

FIGURE 6. TYPE OF WEAPON USED IN CBRN INCIDENTS²⁶

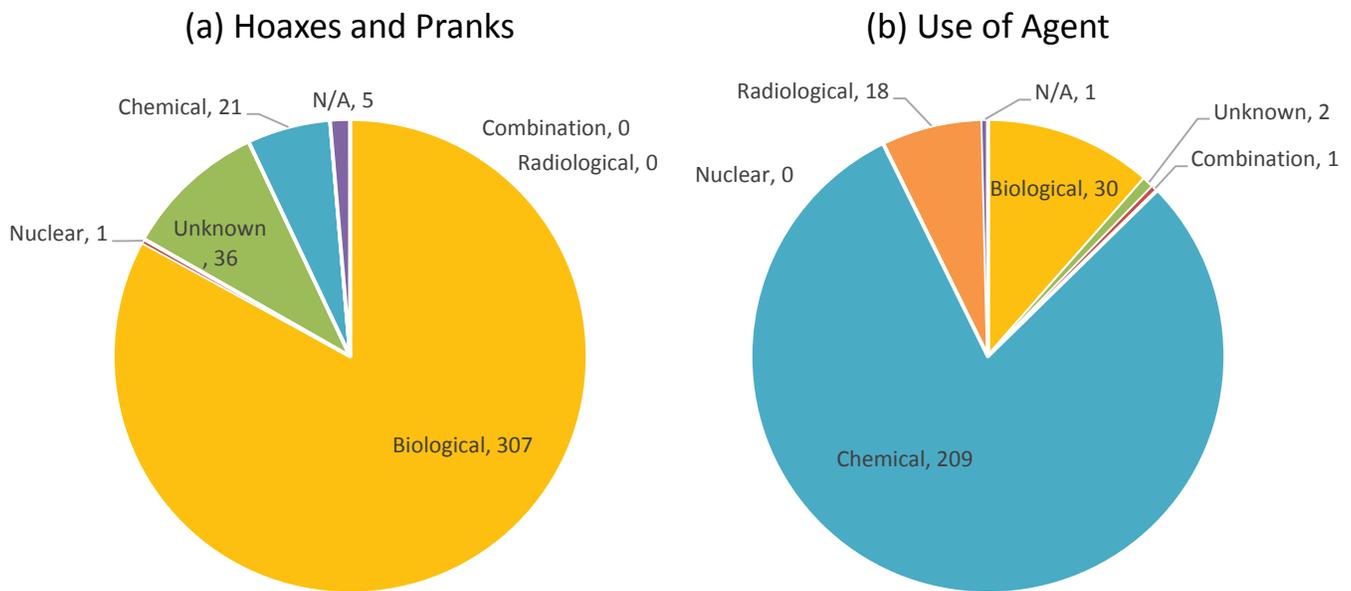


Figure 6 shows that chemical agents dominate in serious attacks (80% of “use of agent” incidents), but biological weapons are by far the most likely to be used in a hoax or prank (83%). Nuclear incidents occur exclusively as hoaxes or pranks (although to a very small degree), and radiological as well as attacks combining multiple CBRN weapon types are never hoaxed or pranked. This implies that incidents suggesting the presence of radiological and/or multiple CBRN weapons should be taken very seriously.

²⁶ Data drawn from the WMDDDB’s sample of politically and ideologically motivated incidents.

FIGURE 7. DELIVERY MECHANISM OF CBRN INCIDENTS²⁷

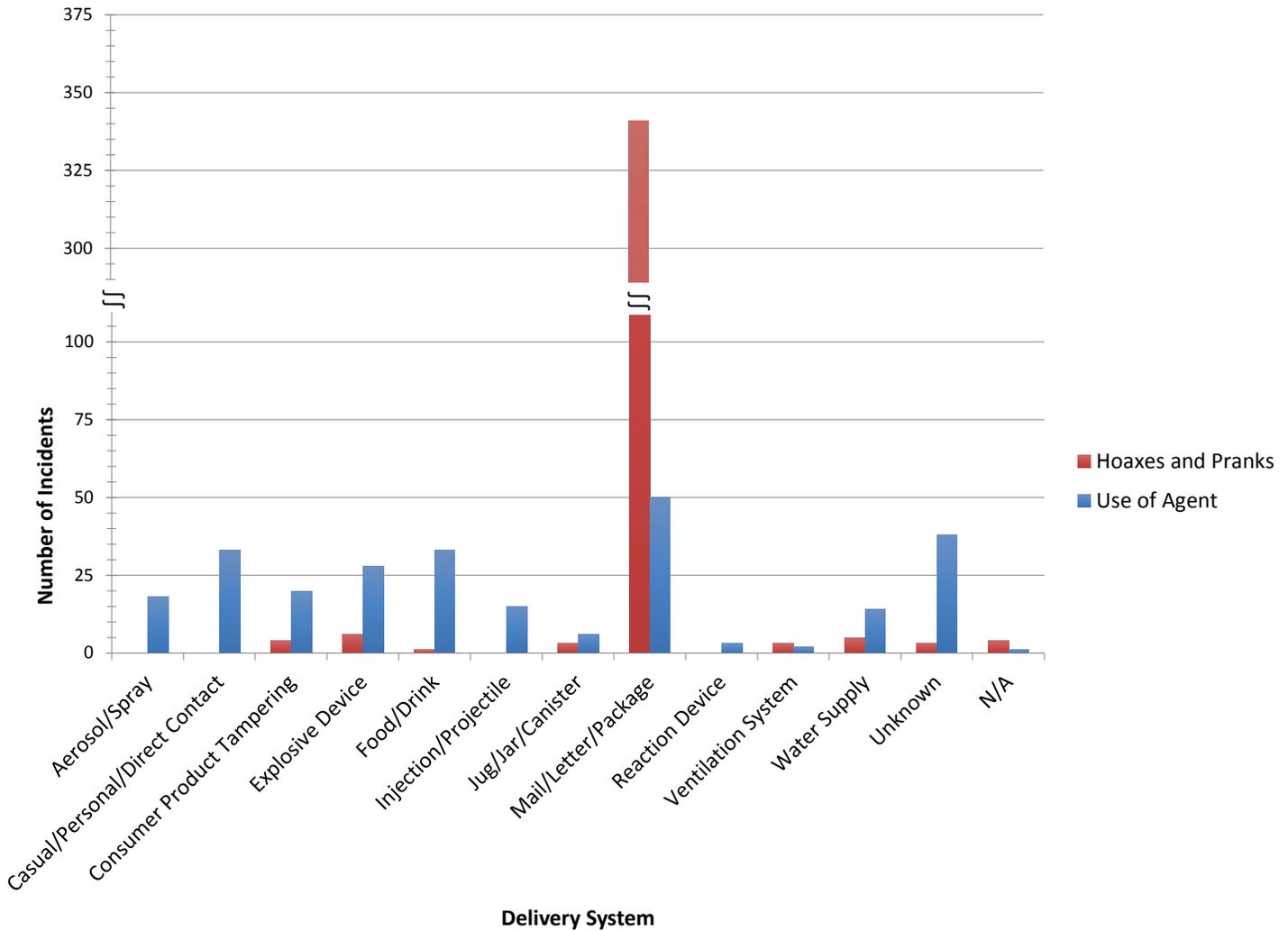


Figure 7 shows that CBRN hoaxes and pranks are almost exclusively delivered via mail, letters, or packages. This delivery mechanism is the only mechanism where a hoax or prank is more likely than actual agent use—and by a large margin. Of the 341 Mail/Letter/Package hoaxes, 87% involved biological weapons; every one of these biological hoaxes and pranks included a substance that purported to be *Bacillus anthracis* (i.e. anthrax). The remaining Mail/Letter/Package hoaxes and pranks included eight chemical incidents, and thirty-seven incidents where the weapon type was unknown or not applicable. It is interesting to note, by comparison, that of the fifty actual uses of agents delivered by mail, letter, or package, only seven (14%) involved biological agents (anthrax). Consistent with the general findings for actual CBRN weapon use, chemical

²⁷ Data drawn from the WMDDDB’s sample of politically and ideologically motivated incidents.



(56%) and radiological (30%) agents delivered by mail, letter, or package were far more common.

Hoaxes as a Mode of Terrorism, Revisited: Implications for Coding

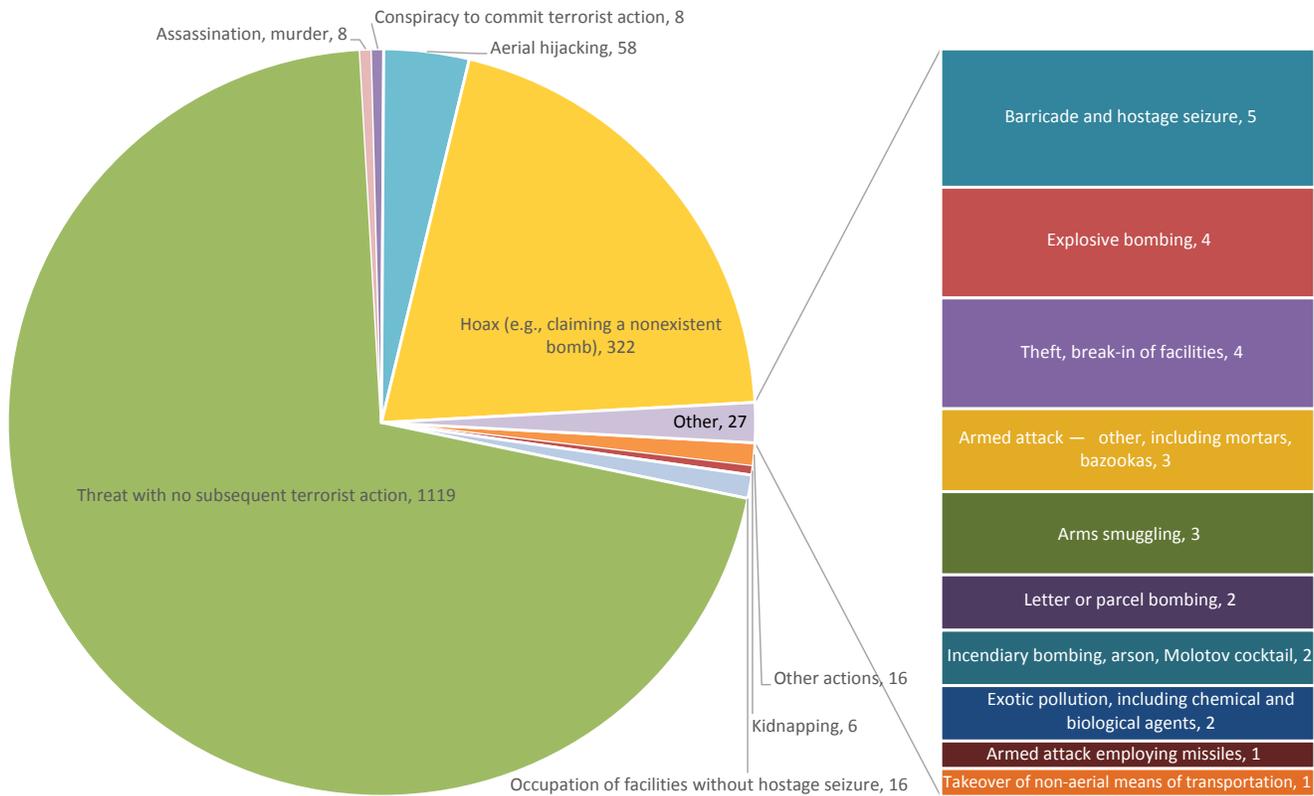
In the WMDDDB, as described above, hoaxes and pranks are together classified as a particular terrorist event. They are then categorized according to the weapon type and agent purported to be present, as well as the delivery mechanism involved (i.e. an anthrax hoax letter would be coded as involving a biological weapon, with *B. anthracis*—not white powder—as the agent, delivered by mail, letter, or package). This classification is useful, since it provides the same details for a hoax incident that would be included if the attack had occurred in its serious form (which is, of course, how targets and responders would themselves experience the hoax in its immediate aftermath).

Other datasets, however, are not so clearly and consistently designed. For instance, ITERATE codes for hoaxes as a “type of incident,” alternative to other “types” like assassinations, hijackings, or bombings. In ITERATE, only 2.4% (322) of the total 13,327-event sample are coded as hoaxes. From the variables included in the dataset, there is no mechanism to further subdivide those incidents coded as hoaxes—as in the WMDDDB—into more detailed weapon-type categories; 100% of those incidents coded as hoaxes in “incident type” are also coded as “hoax, no weapons used” for weapon type. The coding scheme, however, reveals an interesting quirk: a broad range of incident types other than hoaxes are also coded with “hoax, no weapons used” as the type of weapon used. Figure 8 presents the incident type breakdown of all the incidents coded with “hoax, no weapons used.” Hoaxes proper account for only 20% of this sample.

A very wide array of incidents involves hoaxed or no weapons. While it is plausible that certain incident types (i.e. threats with no subsequent terrorist action; conspiracies to commit terrorist action; thefts; arms smuggling; occupations of facilities; barricades; hijackings; and even assassinations) could be carried out without weapon use, other incident types cannot. Armed attacks, “exotic pollution,” and the various forms of bombings listed as potential incident types, by definition, involve some sort of weapons use; therefore the coding of weapon type as “hoax, no weapons used” implies that these incidents are really hoaxes. ITERATE data thus understates

the frequency of hoaxes (when filtering results by incident type), and overstates the occurrence of serious incidents (while concurrently underestimating their lethality), potentially by as much as 12%.

FIGURE 8. TYPE AND NUMBER OF ITERATE INCIDENTS CODED WITH WEAPON TYPE = “HOAX, NO WEAPONS USED”



This confusion could be averted if hoaxing were recognized as an alternative mode—rather than a distinct method or tactic—of terrorism. The ambiguous relationship of hoaxes with their corresponding “serious” tactic leaves excessive discretionary power to coders. The realities of coding the now-defunct WITS dataset exemplify such challenges: while the WITS methodology required that terrorists “must have initiated and executed an attack [...] result[ing] in some sort of active, kinetic effect—such as an explosion or inflicted injury or damage” (NCTC 2012, 7) to be included in the database, the database allowed analysts to categorize incidents by event type, of which “hoax” was one possible method (discussed in Richards 2014; Rome 2013, 813). Accord-



ingly, it is likely that WITS vastly underestimated the frequency of hoaxes—since many would have been excluded at the event-identification stage—and, like ITERATE, failed to provide any coherent information surrounding which tactics were hoaxed.

Who Commits Hoaxes, and Why?

On their own, the WMDDDB and ITERATE provide little information on hoax perpetrators. Both databases provide perpetrator names only for incidents perpetrated by groups, not individuals, and both have challenges identifying hoax perpetrators: only 5% of hoax events in the WMDDDB and 17% in ITERATE have an identified perpetrator (see Table 1).²⁸ Still, hoax perpetrator characteristics may be deduced from those instances of known motives.

Figure 9's presentation of CBRN event type as a function of motive shows that, while the vast majority of hoaxes are committed with unknown or unclear motives, hoaxes are nearly twice as likely to support single-issue terrorism than all other motives combined. Among these single issues, abortion-related sentiments are the most likely motive for hoaxes. Given anti-abortionists' predilection toward the preservation of life (and the logical inconsistency inherent in "pro-lifers" resorting to lethal terrorism), this category of hoaxes seems to support a hypothesis that hoaxes result from an incomplete radicalization to violence—particularly in the case of pure hoaxers, who have not [yet] resorted to "serious" terrorism.

Hoaxers' Attack Profiles: Mixed Strategies?

Most terrorist groups who perpetrate hoaxes are not exclusively hoaxers. Of the twenty-six specific groups named as perpetrators of transnational hoaxes in the ITERATE dataset, only five committed hoaxes as their sole terrorism tactic. The remaining twenty-one committed a total of 1,429 non-hoax terrorist acts. These hoaxers are credible; they perpetrate serious terrorism twenty-five times more frequently than they hoax, and they never make threats with no subsequent terrorist action.

²⁸ While 22% of the hoaxes in ITERATE are accompanied by a text variable for perpetrator group, its identification of perpetrator groups is less impressive, as one possible "group name" is "no group involved," which accounts for seven hoaxes, and another nine hoaxes are attributed to "indeterminate" members of various ethnic, religious, and national groups. This leaves only 17% of hoaxes with identified perpetrators.

FIGURE 9. FREQUENCY OF MOTIVES ACCORDING TO CBRN EVENT TYPE²⁹

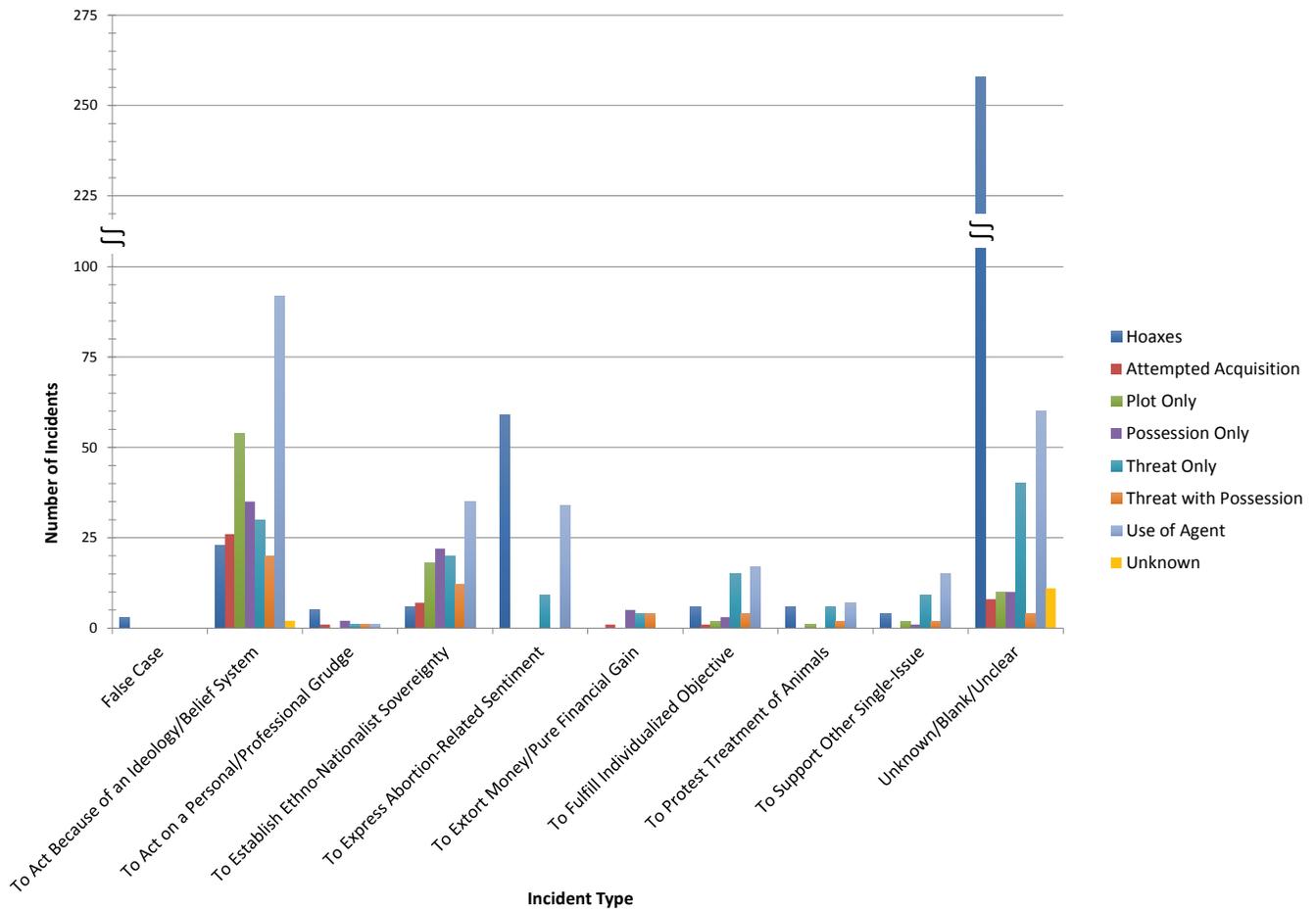


Figure 10 breaks down the types of attacks perpetrated by transnational terrorist groups engaged in both hoaxes and serious terrorism. As per the dataset’s coding methodology, hoaxes are one of twenty-five possible terrorist tactics; they represent a small minority, only 4%, of the terrorists’ total attack repertoire. The most common event perpetrated by these groups is armed attacks employing missiles (42% of incidents), followed by explosive bombings (11%), and incendiary bombings, arson, and Molotov cocktails (9%).³⁰

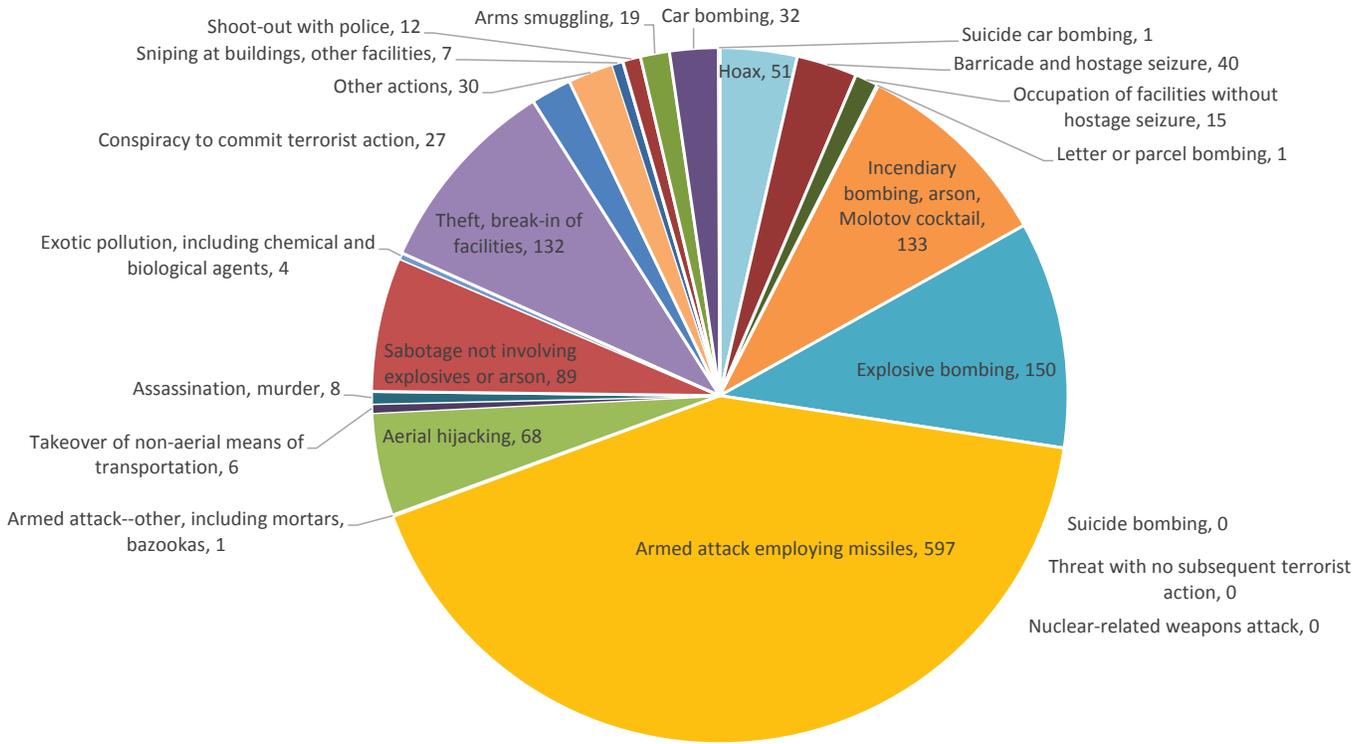
In the WMDDDB, there were only twelve named groups who committed CBRN hoaxes or pranks. Of these, eight were one-time offenders, and four committed more than one hoax or prank. Within the WMDDDB, only two of the named hoaxers also perpetrated serious incidents.

²⁹ Data drawn from the WMDDDB’s sample of politically and ideologically motivated incidents. There is no comparable coding for attack motivation for ITERATE’s transnational hoaxes.

³⁰ The coding challenges stemming from ITERATE’s treatment of hoaxes as a terrorist tactic have been discussed above.



FIGURE 10. TYPES OF EVENTS PERPETRATED BY GROUPS ENGAGING IN BOTH HOAXES AND SERIOUS TRANSNATIONAL TERRORISM³¹



One group, named “September 11”, was responsible for a cyanide hoax, and also used cyanide on two occasions, although its actual cyanide uses relied on a different delivery mechanism (mail/letter/package) than the more logistically complex hoaxed mechanism (water supply contamination). The Scottish National Liberation Army (SNLA), responsible for four hoaxes and pranks, also used chemical agents (sodium hydroxide) on three occasions, and made one threat with possession of B. anthracis. At least two of the group’s three anthrax letter hoaxes³² occurred after the date of their threat with possession of anthrax; at the time of the hoaxes, there was thus evidence that the group could access the biological agent to carry out the attack in its serious form. On the other hand, the group’s ricin hoax was less credible; although the SNLA clearly had interest in CBRN materials, they had never demonstrated their capacity with respect to this particular agent.

³¹ Data drawn from ITERATE.

³² One hoax does not have a specific date attached to it.

When cross-referenced with the GTD (to expand attack profiles beyond the WMDDDB's CBRN-only scope), four of the WMDDDB's twelve named hoaxing groups—September 11, the SNLA, and two others—are shown to have committed a total of 100 serious incidents of terrorism. Earth Liberation Front (ELF) committed a total of sixty-five serious incidents listed in GTD, but did not use CBRN weapons in any of them. Army of God perpetrated twenty-four serious incidents in GTD, none of which involved CBRN weapons, but all of which occurred prior to the end of 1998; given that the Army of God CBRN hoaxes in the WMDDDB occurred in 2001 and that chemical weapons are not their *modus operandi*, it is possible that the true hoaxers were only pretending to be from that terrorist organization.

This analysis assumes that it is the perpetrating group's proficiency in the corresponding serious terrorist attack—and not necessarily the group's proclivity toward hoaxes—that contributes to a given hoax's credibility. In those cases where a terrorist group has the physical capacity to carry out a particular tactic but also chooses to commit that tactic in its hoaxed form, the choice to hoax may be part of a coherent and rational mixed strategy: the group hoaxes and commits serious terrorism according to set probabilities, but by perpetrating hoaxes less frequently than serious attacks, it encourages risk-averse opponents to expect serious acts and respond accordingly. Conversely, where a group seemingly lacks the capacity to carry out a particular tactic, it may be hoaxing as a dry run for future serious use of that tactic, or simply attempting to inflate its attack profile.

CONCLUSION: THE BENEFITS OF ACCORDING SERIOUS ATTENTION TO HOAXES

To date, the academic literature on terrorism has not allocated any serious attention to hoaxes. This paper is a first step in bringing coherence to the presently sporadic, incomplete, and incoherent literature regarding hoaxes. As demonstrated above, hoaxes occur with an undeniable frequency and in curious patterns, and should not be dismissed simply because they do not generate direct human costs or property damage. It is this author's contention that a thorough understanding of hoaxes would substantially contribute to broader terrorism studies theory, debates, approaches, and empirics.



At the theory level, hoaxes may play a considerable role in flushing out alternatives—and alternative routes—to violence in radicalization models. McCauley and Moskalenko's (2014) examination of hoaxer Clayton Waagner, in an attempt to develop a profile of "lone wolf" terrorists and their radicalization to violence, is a first step in this direction, and should be probed further. That anti-abortionist sentiments are 1) the most common motivation for hoaxed CBRN events, and 2) the only perpetrator motivation for which hoaxes are more likely to occur than the use of an actual agent³³ suggests a further avenue for research into radicalization models: the examination of attitudes toward violence and loss of life.

Hoaxes also appear to be relevant in the old-versus-new terrorism debate, although the literature has not yet included them in that context. That CBRN hoaxes have emerged as a dominant mode of terrorism over the past two decades (Figure 1) indicates that terrorism has not shifted toward more excessive and indiscriminate violence in the post-9/11 world, as proponents of "new terrorism" (e.g. Neumann 2009) would have it. Yes, a substantial increase in the incidence of CBRN terrorism—as a particularly heinous form of violence—would support proponents' claims, but this paper's analysis of WMDDDB data shows that CBRN hoaxes are nearly one and a half times more frequent than incidents where CBRN agents are actually used (most of which, incidentally, also involve no casualties). Furthermore, that hoaxes are consistently perpetrated even with very low prospects of negotiation success (based on events coded as weapon type = "hoax, no weapons used" in the ITERATE skyjack file) lends support to the quintessentially old-terrorism claim that terrorists simply want "a lot of people watching, not a lot of people dead" (Jenkins, quoted in Neumann 2009, 25). An incident's propagandistic elements appear to be more significant, in terms of perpetrator motivation, than any immediate benefits—negotiated or otherwise.

A deeper understanding of hoaxes may also help advance economic approaches to the study of terrorism. Since terrorist hoaxes "do not really use up resources" (Enders, Sandler, and Cauley 1990, 101), they pose a challenge to standard models of terrorism that rely on budget constraints to explain terrorists' allocation of effort to various terrorist and non-terrorist activities.

³³ According to data drawn from the WMDDDB, for years 1968-2012.



With respect to game theoretical approaches, this paper's findings regarding hoax perpetrators' commission of serious terrorism acts lends support to the notion that terrorists employ mixed strategies—not just involving probabilities of attacking over not attacking, or of choosing among different tactics, but of instigating serious attacks over hoaxed ones.

At a practical level, according appropriate attention to hoaxes will help to refine coding in large-n terrorism datasets, since putting the spotlight on hoaxes—as this paper has demonstrated—unveils challenges in the coding structure of existing datasets, namely ITERATE (as well as the former WITS). Addressing these coding inconsistencies will directly support research that addresses hoaxes, but it will also refine and clarify statistical understandings of other forms of terrorism by providing a mechanism to accurately filter out hoaxed events while retaining the capacity to assess implications of serious and hoaxed terrorism for responders and the public.

Lastly, careful observation of hoax activity can also contribute to our knowledge of serious terrorist activity inasmuch as hoaxes may be perpetrated: while terrorist groups are accumulating resources and planning to conduct serious terrorist acts; to gain tactical intelligence for—and to practice dry-runs of—planned serious attacks; as a function of an incomplete radicalization to violence or of a group's (ideological) aversion to more severe degrees of violence; or, as a an element of a group's mixed-strategy-informed attack profile. Whether the study of hoaxes is taken seriously as an end in itself or as the means to a more comprehensive understanding of "serious" terrorism, it is time to accord terrorism hoaxes the attention they warrant.



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