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# **Convergence or divergence? A computer-assisted analysis of how Chinese state-sponsored and market-oriented newspapers discursively construct the newsworthiness of the Kunming terrorist attack**

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## **Convergence or divergence? A computer-assisted analysis of how Chinese state-sponsored and market-oriented newspapers discursively construct the newsworthiness of the Kunming terrorist attack**

### **Abstract**

Government and market are the two main factors that drive the practices of the Chinese media system and influence the news construction process. A dramatic, socially disruptive event like the 2014 Kunming terrorist attack has the potential both to damage the government image and to attract readers. Analyzing how different types of media, more specifically the state-sponsored and the market-oriented press, construct a terrorist attack may therefore reveal essential characteristics of the Chinese media system and its relationship with both government and market. In doing so, the present study makes a contribution in terms of methodology, resources, and empirical description. From a methodological perspective, drawing on a dataset of 275 news articles about the Kunming attack that was collected from 16 mainstream Chinese newspapers, we explore the possibilities of combining computer-assisted techniques (i.e. part-of-speech tagging, sentiment analysis, collocation, and concordance) and Discursive News Values Analysis (DNVA), based on which we identified 699 Chinese lexical indicators distributed across ten news values. The open-source wordlist produced by this procedure will facilitate future quantitative DNVA, but also fills a resource gap in non-English news values studies. After calculating the mean normalized frequency of indicators under each news value on a more empirical level, we found that the state-sponsored and the market-oriented press converge in foregrounding the news values of Eliteness and Personalization, in line with public expectations, while at the same time diverging in their use of the news values of Positivity, Negativity, and Superlativeness, which we can relate to the different aims and responsibilities of these two types of newspapers.

**Keywords:** Discursive News Values Analysis (DNVA), Corpus linguistic techniques, Kunming attack, Chinese media system, terrorism

## Introduction

If government and market are the two “hands” that control and drive the Chinese media system, then different media types may serve different “hands”. In the wake of the reform and open policy, dating back to the 1980s, the Chinese media system transformed deeply, with the majority of newspapers becoming market-oriented, no longer subsidized by the government (Zhao, 2008; Duan & Miller, 2019). This has led to two main categories of Chinese media: the state-sponsored press (including party press and official press) and the market-oriented press (e.g. metropolitan/city press). The state-sponsored press (e.g. People’s Daily) is directly and/or indirectly subsidized by the government or Communist Party of China (CPC), and their primary loyalty is to the government, while for the market-oriented press (e.g. Huaxi City Daily), the priority is to generate revenues to meet economic needs by attracting audiences (Wang & Sparks, 2019) and engaging ordinary people (Duan & Miller, 2019). However, government control and economic needs are interactional rather than oppositional. On the one hand, with the progress of marketization, the Chinese government loosened control over the media system (Winfield & Peng, 2005) and even the state-sponsored media tend to appeal to audience and market needs (Wang, 2007). On the other hand, Chinese media, including the market-oriented press, are obliged to “uphold the Party principle” (Stockmann, 2013:54). As such, the state-sponsored press and the market-oriented press may converge to some extent while using different strategies in the news construction process.

Negative social issues have the potential to harm the positive image of the government, yet at the same time they exhibit news values that appeal to audiences and meet market needs. Terrorist attacks are a typical example, which threaten social stability, cause public panic and possibly damage government legitimacy (Canel & Sanders, 2010), sharpening the tension between political control and market pressures. Examining the construction of news reporting

on a terrorist attack, therefore, makes it possible to analyze the defining features of the Chinese media system and the relationship between these two “hands”.

Methodologically, news values theory provides a useful and established analytical framework to analyze the news construction process, shedding light on how events become “news” (Galtung & Ruge, 1965; Harcup & O’Neill, 2001) and what is included and excluded from “the news” (Osborne et al., 2016). Looking into what kinds of factors or values inform the perceived “worth of a happening or issue to be reported as news” (Caple & Bednarek, 2016:436), news values research contributes to rendering news selection into “a more transparent and better-understood process” (Harcup & O’Neill, 2001:279).

As such, this work will take the Kunming attack as a case study to explore how Chinese print media discursively construct the newsworthiness of a specific terrorist incident, what kinds of news values are dominant, and whether the application of news values varies across different newspaper types. The Kunming knife attack happened in the province of Yunnan, China, on March 1st, 2014, resulting in 31 deaths and more than 140 injuries, with East Turkestan separatist forces claiming responsibility for the attack. It was one of the deadliest domestic terrorist attacks in recent Chinese history, attracting extensive media and public attention.

In addressing the newspaper coverage of this terrorist attack, the present study aims to make a methodological, resource, and empirical contribution. On the methodological level, we will explore the possibilities of a computer-assisted, quantitative identification of news values based on Corpus Linguistics (CL) techniques and Discursive News Values Analysis (DNVA), continuing to work along the lines put forward by Bednarek and Caple (2012; 2014; 2017). On the resource level, we will identify Chinese language resources representing each news value and provide an open-source wordlist of Chinese lexical indicators of news

values, facilitating future large-scale, quantitative news values research on, or including, Chinese language data and filling the resource gap in non-English news values studies. On the empirical level, this study will provide an analysis demonstrating how Chinese newspapers discursively established the news values of a domestic terrorist attack, shedding light on how newspaper type involved influences the discursive construction of newsworthiness.

## **1 Literature review**

### **1.1 News values theory**

The study of news values comprises four dimensions: material, cognitive, social, and discursive (Bednarek & Caple, 2017:42-43). In the discursive dimension, news values are considered not as journalists' beliefs or criteria during the news selection process but as "choices in language and image" in the process of news treatment (Bednarek & Caple, 2012:103). On the premise that news values are embedded or/and constructed in discourse (Bednarek & Caple, 2014), DNVA can reveal how news values are established by analyzing the linguistic or semiotic choices in the construction of news articles (Caple & Bednarek, 2016), providing a systematic approach to investigating discourse construction across text types in the news production process (Bednarek & Caple, 2012). It should be noted that the discursive dimension is not exclusive but complementary to the other dimensions (Bednarek & Caple, 2012), yet often overlooked or conflated with the other dimensions in news values research (Bednarek & Caple, 2017).

Focusing on the discursive dimension, this work will examine how Chinese media linguistically construct the newsworthiness of a terrorist attack. As such, we subscribe to Bednarek and Caple's narrow definition of news values as "the 'newsworthy' aspects of actors, happenings and issues as established by a set of recognized values" (Caple & Bednarek, 2016:438). Starting from this definition, this work mainly focused on ten news values that are well-established, frequently used, and practical from a linguistic perspective (Bednarek & Caple, 2012;

2014)– the definitions of these specific news values and linguistic devices are shown in Table

1.

**Table 1 The definition of news values in previous studies**

News values	Definition	Linguistic devices <sup>1</sup>	Possible POS <sup>2</sup>
<b>Eliteness</b>	The event is of “high status or fame in the eyes of the target audience” (Potts et al., 2015:151; Bednarek, 2016; Bednarek & Caple, 2012), including powerful individuals, organizations, institutions or corporations, or countries (Harcup & O’Neill, 2017; Makki, 2019).	Status markers; status-indicating adj; recognized names; achievement/fame	Noun
<b>Personalization</b>	Personalization focuses on ordinary people, including eyewitnesses, survivors, or other private citizens, non-elite individuals (Bednarek, 2016).	Ordinary people, their emotions, experiences	Noun
<b>Proximity</b>	The construction of an event as happening geographically (Harcup & O’Neill, 2017; Wendelin et al., 2017) or emotionally (Schultz, 2005; Joye, 2010) near the target audience.	Place/nationality near the target community; nation/community via deictics, generic place references, adj; first-person plural pronouns	Pronoun; Locative words
<b>Timeliness</b>	The event is “timely in relation to the publication data: as recent, ongoing”, new, current, about to happen (Caple & Bednarek, 2016; Potts et al, 2015:152; Makki, 2019), or “temporally relevant to the reader at the time of publication” (Bednarek & Caple, 2017:64; 70).	Temporal references; present and present perfect; implicit time references through lexis; current trends, newness, seasonality, change	Temporal words
<b>Superlativeness</b>	An event is of high intensity, large scope/scale/size/extent, or involves a large number of people, huge impacts, large size of entities, excessive force of actions or behavior, a degree of extreme behavior or extreme occurrence (Potts et al., 2015; Makki, 2019; Harcup & O’Neill, 2017; 2001; Bednarek, 2016).	Intensifiers; quantifiers; intensified lexis; metaphor and simile; comparison; lexis of growth; only/ just/ along/ already +time /distance or related lexis	Adv; Numeral
<b>Negativity</b>	An event/issue is “constructed as negative for the target audience” (Potts et al., 2015:151), including conflict, accidents, death, injuries, disasters, war, arguments, strikes, insurrections, crime, the act of violence, opposition, controversy, etc. (Bednarek, 2016; Harcup & O’Neill, 2017; Bednarek & Caple, 2012).	Negative/positive emotion and attitude; negative/positive evaluative language; negative/positive lexis; descriptions of negative or positive behavior	Adj; Verb; Noun
<b>Positivity</b>	An event is constructed as positive (Bednarek & Caple, 2017; Makki, 2019), including success, victory, peace, heroic or selfless acts, lack of crime, injuries, or damage, recoveries, breakthroughs, cures, celebrations, rescues (Harcup & O’Neill, 2017).		
<b>Impact</b>	An event has “significant effects or consequences” (Potts et al., 2015:151; Makki, 2019:441; Bednarek, 2016; Bednarek & Caple, 2012), like “serious repercussions or national/global impact” (Bednarek & Caple, 2012:104).	Significance; actual/non-actual significant/ relevant consequences, including abstract, material or mental effects	Verb; Noun

<sup>1</sup> This column is cited from Bednarek and Caple (2017:79-80).

<sup>2</sup> Note that there is no one-to-one correspondence between “possible POS” and “news values”. The POS tagging categories in the table are only a summary of the possible general categories based on the content of the “linguistic devices” column.

<b>Novelty</b>	An event is new, unexpected, unusual, rare, different, strange, out of the ordinary in some way for the target audience (Potts et al., 2015; Bednarek, 2016), including evaluations of unexpectedness, or unusual happenings (Makki, 2019).	Unexpectedness; surprise/expectations; comparisons; unusual happenings	Adj; Adv
<b>Consonance</b>	An event shares a “similarity with past” (e.g. yet another, once again), or includes “explicit references to general knowledge/ traditions” (e.g. well-known) (Potts et al., 2015:151; Bednarek & Caple, 2017:79).	Similarity with past; General knowledge/ traditions; Expectedness /typicality	Adv; Adj

Note that, as far as terrorism is concerned, we defined Positivity as the resolution of terrorist attacks, including the investigation and punishment of the perpetrators, and government measures against terrorism. As expressions of condolence and mourning towards victims are essentially a type of sorrow, so we assigned them to Negativity. We also narrowed down the definition of Consonance to refer to the closeness to past experiences, knowledge, and cognition, disregarding the dimension of stereotypes, ideologies, and preconceptions, which was too abstract, we would argue, to identify through a computer-assisted DNVA approach. We also limited Proximity to physical proximity, defined as “how close to home an event is” in geographical terms (Ahva & Pantti, 2014:325), as well as emotional proximity, defined as how an event triggers “a common emotional chord in the audience, regardless of where it takes place” (Schultz, 2005:40). Emotional proximity typically materializes through the use of “emotional appeals or personal identifications” (e.g. “同胞 compatriot”, “我国 our country”) with the intent to “evoke affective interpretations and a sense of closeness to the events covered” (Ahva & Pantti, 2014:325).

## 1.2 News values in terrorism reporting

Previous studies about media representation of terrorist attacks usually drew on framing theory (e.g. Godefroidt et al., 2016; Zeng & Tahat, 2012; Powell, 2011), while fewer studies examined the newsworthiness of terrorist attacks by using news values theory (Zhang et al., 2013). Some studies have focused on the characteristics of specific terrorist attacks from a material dimension, such as the type of targets, the type of actions, terrorists or terrorist



groups, location, or casualties. For instance, Weimann (1991) as well as Chermak and Gruenewald (2006) investigated the relationship between the characteristics of several terrorist attacks and media attention they received, including the number of news articles and the amount of space in the press and screen time, so as to clarify the news selection process related to terrorist attacks. Combining news values and framing theory, Ruigrok and Van Atteveldt (2007) looked at how US, British, and Dutch newspapers depicted various terrorist attacks and whether geographical proximity played a role in news selection. Others have not only examined the event properties, but also how perceptions towards these events – which relate to the social and/or cognitive dimensions – such as social change caused by, or the social significance of, terrorist attacks (e.g. Zhang et al., 2013) influence the process of news selection.

In terms of methodology, previous studies have mainly considered event characteristics (e.g. the number of victims, the type of attack) or social significance (e.g. political, economic, cultural impacts) as independent variables, and the number of news articles as the dependent variable. Through statistical approaches such as regression and MANOVA analysis, these studies can further scrutinize the media selection process, including the question concerning which factors contribute to news selection in a statistically significant manner (e.g. Weimann, 1991; Zhang et al., 2013). In short, content analysis and manual coding are prevalent, while computer-assisted approaches have been less frequent so far.

Additionally, some studies (e.g. Zhang et al., 2013; Du & Li, 2017) examined news articles about terrorism in Chinese media while others (e.g. He & Caple 2020; Caple, et al., 2020; Zhang & Caple, 2021) explored how DNVA could be applied to Chinese media in an attempt to reveal processes of news selection in the Chinese media system. Yet, relatively few studies discuss how Chinese media discursively construct news values, especially from a quantitative

perspective and based on Chinese language, and what linguistic resources they adopt to establish news values in terms of terrorism reporting. Furthermore, relatively few studies on the Chinese media system have looked into the differences between types of newspapers thus far (Wang et al., 2016). To fill these voids, this work proposes three research questions:

Q1: How does the Chinese press discursively construct news values in news coverage about a domestic terrorist attack, more specifically from a discourse perspective? What kinds of linguistic resources are used to establish news values?

Q2: What are the dominant news values in Chinese newspapers, which make the specific terrorist attack newsworthy?

Q3: (How) does the distribution of news values vary across newspaper types?

## **2 Methods and data**

Previous studies that combined CL methods and DNVA have adopted several established computer-assisted techniques, including frequency statistics, analyses of keywords or clusters, the use of semantic tags and part-of-speech (POS) tagging, collocation analysis, and the use of linguistic concordances (e.g. Bednarek & Caple, 2014; 2017; Potts et al., 2015). Drawing on Bednarek and Caple's Discursive News Values Analysis (DNVA), this paper will further explore the possibility of employing computer-assisted approaches to investigate how the Chinese press linguistically construct a terrorist attack as newsworthy. As such, we aim to contribute to enriching the computer-based approach to DNVA, while also providing empirical insights into how a specific terrorist attack was discursively established as newsworthy in mainstream Chinese newspapers, and whether news values vary across newspaper types. Our analytical point of entry is a set of Lexical Indicators of News Values (LINV) – particular lexical items (e.g. 总统[president]) which are assumed to indicate the presence of a particular news value (e.g. Eliteness). After describing our corpus dataset in Section 2.1 below, we will explain the analytical procedure we developed to obtain a valid set of lexical indicators of

specific news values in Section 2.2, and how we applied this to calculate scores per news value, in Section 2.3.

## 2.1 Newspaper data

We collected the news articles about the Kunming attack from the Dynamic Circulating Corpus (DCC), compiled by the Institute of Language Monitoring and Social Computation at Beijing Language and Culture University. The DCC is the most representative and diverse corpus of the Chinese language, and it includes textual data of about 18 of the highest-circulation Chinese newspapers from 2001 until the present. As DCC has 16 newspapers for the year 2014, which is the year for our dataset, our data were collected from these 16 newspapers, as shown in Table 2. Specifically, we extracted all news articles about the Kunming terrorist attack mentioning it in the title or lead (the first sentence or paragraph) of the article, or mentioning the Kunming attack at least twice in the body of the article (the detailed steps are shown in Figure 1), using the keywords “昆明[Kunming]” plus one of the keywords “袭击[attack]”, “恐袭[terrorist attack]”, “暴恐[violent terrorist attack]” or “恐怖主义[terrorism]”.

After manually deleting duplicate and unrelated articles, we obtained a final dataset of 275 articles from a range of different newspapers, both state-sponsored as well as market-oriented. Note that we extracted all articles discussing the Kunming attack for the years 2014 and 2015, that is within 2 years of the attack. This is the period when the attack received the most newspaper coverage, as in subsequent years there are less than 5 articles per year matching our selection criteria.

**Table 2 The profile of the 16 Chinese newspapers<sup>3</sup>**

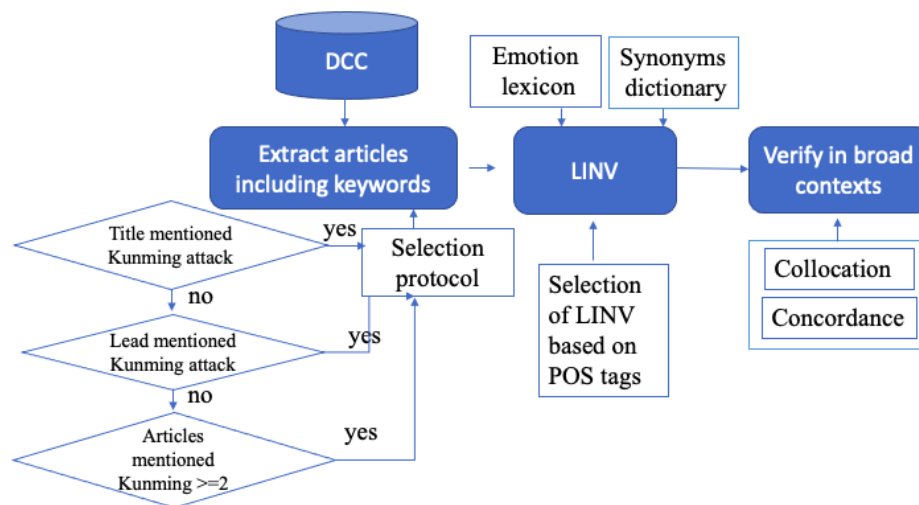
Types	Newspapers	Number of articles	Locations	Circulation (daily)
State-sponsored press	People’s Daily	20	Beijing	2,300,000
	Guangming Daily	13	Beijing	809,000
	Legal Daily	31	Beijing	/

<sup>3</sup> This table is based on Tong (2014:352), in addition to information available on Wikipedia, Baidu Baike, and the official websites of the newspapers mentioned.

	Chinese Youth Daily	15	Beijing	300,000
	Beijing Daily	10	Beijing	400,000
	Beijing Evening News	19	Beijing	100,000
	Beijing Youth Daily	26	Beijing	650,000
	Tonight News Paper	9	Tianjin	700,000
	Guangzhou Daily	23	Guangzhou	1,850,000
	Shenzhen Special Zone Daily	24	Shenzhen	500,000
	Southern Metropolis Daily	34	Guangzhou	1,690,000
Market-oriented press	Southern Weekly	2	Guangzhou	1,600,000
	Huaxi City Daily	5	Chengdu	800,000
	Xinmin Evening News	24	Shanghai	1.1-1.2million
	The Beijing News	19	Beijing	730,000
	Yangcheng Evening News	1	Guangzhou	1,500,000

## 2.2 Lexical Indicators of News Values

To arrive at a solid list of LINV, we developed the procedure outlined in Figure 1 below, combining, on the one hand, a bottom-up strategy starting from the data itself, with, on the other hand, a more top-down strategy starting from existing lexical databases, which complement each other.



**Figure 1 Flow chart of research steps**

For our bottom-up strategy, departing from the dataset obtained using the selection criteria outlined in Section 3.1, we used POS tagging in JiebaR package<sup>4</sup> to automatically extract potential linguistic resources (i.e. lexical indicators) of each news value (with frequency $\geq 2$ ).

Building on the results of POS tagging, we manually assigned these “words” to specific news

<sup>4</sup> This package is based on ICTPOS3.0 lexical tags set (<https://gist.github.com/luw2007/6016931>), including 8 content word categories, namely noun, verb, adjective, descriptive word, attributive word, numerical, quantifier, and pronoun, and six function word categories.

values according to the definitions, linguistic devices (cf. Table 1), and examples of each news value from previous studies (<https://github.com/laceylam/Chinese-LINV>). That is, some word classes can be easily associated with certain news values, such as adverbs and numerals → Superlativeness, noun → Personalization or Eliteness, temporal words → Timeliness, locative words and pronoun → Proximity (cf. Table 1 “Potential POS” column), while lexical indicators under several news values (esp. Negativity and Positivity) varied across word classes, which will be further determined by sentiment analysis. Taking a more top-down approach, we further obtained potential LINV using existing emotion lexicons. The Emotional Vocabulary Ontology Database created by the Dalian University of Technology (<https://github.com/ZaneMuir/DLUT-Emotionontology>) categorizes a large number of lexical items into seven main emotional categories: 乐[happy], 好[good], 怒[angry], 哀[sad], 惧[fear], 恶[disgust], and 惊[surprise]. We linked this semantic categorization to different news values relevant to our analysis, thus expanding our base of LINV. Specifically, items in the categories “happy” and “good” were added to our set of lexical indicators for Positivity, items in the “surprise” category were added as lexical indicators for Novelty, and items in the categories “angry”, “sad”, “fear” and “disgust” were assumed to indicate Negativity. Next, to further expand our base of indicators obtained from POS tagging and sentiment analysis, we also used a Chinese synonym dictionary ([https://github.com/guotong1988/chinese\\_dictionary/](https://github.com/guotong1988/chinese_dictionary/)) to include words with a similar semantic profile to the ones already in our list of LINV. For instance, based on the POS tagging, we extracted “救援[rescue]” under Positivity with high frequency, and then according to the synonym dictionary, we also selected its synonym “驰援[rush to the rescue]” with lower frequency.

During the process of manually assigning, we found that most LINV we identified can be straightforwardly linked to corresponding news values, yet some LINV are more ambiguous. To verify our list of LINV, we also examined the wider contexts of use by manually checking

the indicators' use in collocations and concordances. In doing so, we found and corrected four main types of errors:

- First, some indicators have several word classes, leading to ambiguities between different word classes. For instance, the word “代表” can be either the verb “to represent”, or the noun that means “representatives”. As only the noun version of this word can construct Eliteness, we just kept relevant collocations of this word, like “人大代表[NPC deputies]”, “代表团[delegations]”, etc.
- Second, some indicators themselves are negative or positive, but their emotional valences are opposite in terms of terrorism. For instance, “惩治[punish]” was originally assigned into “anger”, a sort of Negative emotion according to the sentiment analysis, but as punishment in our corpus usually related to penalizing perpetrators of terrorist crimes, as a more general measure of the crackdown on terrorism, we assigned this indicator to Positivity.
- Third, some indicators may be assigned to the wrong news values category without a context. For instance, “沉痛[bitterly (grieved)]” was initially automatically assigned into “sad” by sentiment analysis, and we manually assigned it to Negativity, but it co-occurred frequently with verbs (e.g. “悼念[mourn]”) to describe the degree of the verbs, so we moved it to intensifiers under Superlativeness.
- The last type resulted from the errors in word segmentation. For example, “最高[highest]” was originally assigned to Superlativeness, but it proved to be a part of “最高人民法院[Supreme People's Court]” based on a concordance and collocation analysis. As such, we adjusted the list of LINV to improve validity.

To sum up, starting from our dataset, we used POS-tagging to automatically identify potential LINV, and then manually assigned them to specific news values, as the definition and

linguistics devices of each news value (cf. Table 1) indicated a link between specific word classes and news values. As certain word classes can be associated with different news values, sentiment analysis, as a supplementary approach, was used to find the associations between certain news values and emotional categories, providing a standard for manual assignment. Drawing on these, we manually extended the wordlist by looking up our set of lexical indicators in the synonymous dictionary. Finally, to verify the list of LINV, we did a collocation and concordance analysis, which allowed us to examine the context of ambiguous words. Our selection, therefore, includes 699 LINV, distributed across 10 news values (<https://github.com/laceylam/Chinese-LINV>). Notably, the final list of LINV was a consensus reached after many discussions among the authors of the paper. Still, as Bednarek and colleagues (2021:708) argue, “DNVA is not an exact science”, and different selections and interpretations of LINV are of course possible.

### 2.3 Analysis

Based on our final list of LINV, we used concordance searches to obtain the normalized frequency per LINV, calculated as follows:

$$\text{Normalized frequency per news value} = (\sum_{ij} \frac{\text{absolute frequency of LINV } i}{\text{number of words per article } j} * 1000) / N_j / N_i$$

Note that  $i$  refers to per LINV,  $j$  refers to per article,  $N_j$  refers to the number of articles,  $N_i$  refers to the number of LINV

This means we calculated a normalized frequency per 1,000 words for each LINV in each article. Subsequently, we obtained a mean normalized frequency across all articles and across all LINV to obtain a mean normalized frequency score per news value. As such, the distribution of each news value is not influenced by the number of LINV, the number of articles, or the length of each article. That means, following this formula, we avoid the pitfall of variable list lengths and can validly compare the frequencies of the different news values. After obtaining

the frequency and distribution of each news value, we examined whether the application of news values varied across newspaper types, as discussed in the Results section below.

### 3 Results

In the following paragraphs, we will present our results regarding the overall distribution of news values (see 3.1), as well as their variation across newspaper types (see 3.2).

#### 3.1 The distribution of news values

This section will first discuss some general observations based on the whole dataset, and then focus on the most prominent news values and their subcategories. As shown in Figure 2 below, generally news coverage of the event appears to primarily stress elements of Eliteness and Personalization. On the one hand, Eliteness was related to politicians, institutions, and experts, which was used to express the government attitude towards this attack (see Example 1) and provide professional suggestions and help (see Example 2):

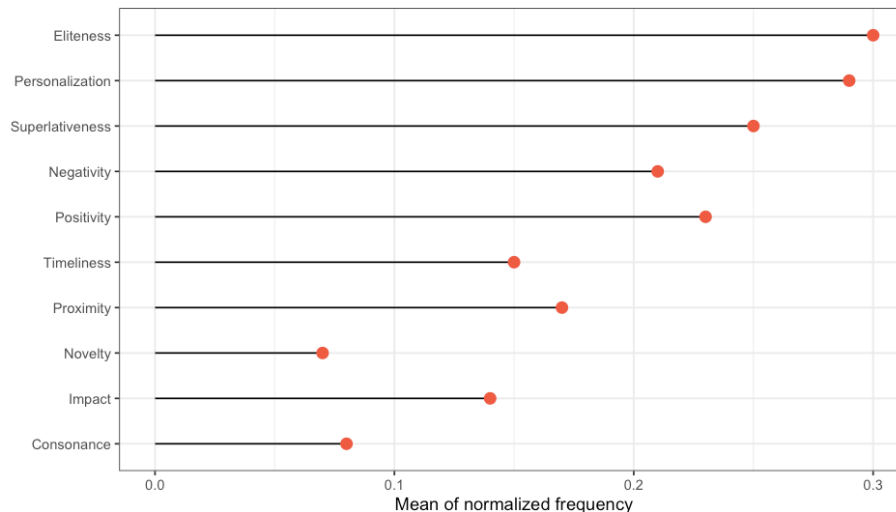
**Example 1:** 案发后党中央、国务院高度重视，习近平总书记立即作出重要批示，要求政法机关迅速组织力量全力侦破案件，依法严惩处暴恐分子。[After the incident, the **Party Central Committee and the State Council** attached great importance to the case, and **General Secretary Xi Jinping** immediately issued an important instruction, requesting the political and legal organs to quickly organize forces to **make every effort to solve the case and severely punish** the terrorists under the law.]

[--Beijing Youth Daily and The Beijing News](#)

**Example 2:** 目前，国家卫生计生委派出的 29 名专家与省、市专家组成联合专家组，加强重症抢救、专科救治和巡诊指导。[At present, 29 **experts** sent by the **National Health and Family Planning Commission** and provincial and municipal **experts** form a joint **expert group** to strengthen critical **resuscitation**, specialized **treatment**, and inspection guidance.]

[--The Beijing News, Shenzhen Special Zone Daily, and Beijing Daily](#)





**Figure 2 Overall distribution of news values**

Personalization, on the other hand, was applied to describe the “experiences” of ordinary people, notably including the injured, victims, witnesses, or local citizens (i.e. citizens from Kunming) (see Examples 3, 4, 5, [and 6](#)), to portray a heroic image (cf. Example [7](#)), and to enable identification ([cf. Example 8](#)) or mourning with the victims (cf. Example [3](#)).

**Example 3:** 在事发地昆明火车站，3月2日下午2点35分许，即有**市民**来到火车站站前广场，为**遇难者**敬献花圈。[At the Kunming Railway Station, where the incident occurred, at 2:35 p.m. on March 2, **citizens** came to the square in front of the station to lay a wreath for **the victims**.]

--[Shenzhen Special Zone Daily](#)

**Example 4:** 根据事发后**目击者**的描述，他们手持长长的砍刀，身穿黑衣。四周人纷纷向不同方向逃散。一群人这时候开始使用砍刀，见人便砍。[According to **eyewitness** accounts after the incident, they were armed with long machetes and dressed in black. People were fleeing in different directions around them. A group of people began to use machetes at this time, slashing at anyone they saw.]

--[Southern Metropolis Daily](#)

**Example 5:** 来自贵州凯里的石睿（化名）是事件的**亲历者**，事件发生后，她抱起孩子就跑，躲过了一劫，每每回想那惊心动魄的夜晚，她就浑身发抖。[Shi Rui (a pseudonym) from Kaili, Guizhou province, was an **eyewitness** to the incident, and after this accident happened, she picked up her child and ran away to escape, shivering every time she thought back to that frightening night.]

--[The Beijing News](#)

**Example 6:** 一些**旅客**逃进了进站口旁边的德克士、一家面馆和宾馆。店员用东西顶住门，阻挡暴袭分子。Some **travelers** fled into the Dicos, a noodle shop and hotel next to the entrance to the station. **Store clerks** held things against the door to block the terrorists.

--[Southern Metropolis Daily](#)

**Example 7:** 在昆明火车站严重暴力恐怖袭击事件中，在人民群众生命受到威胁的一刻，人民警察没有退缩，他们喊出“来砍我”，用自己的身躯挡住暴徒的刀，毅然与暴徒搏斗，护佑人民群众生命。[When the serious violent terrorist attack hit Kunming railway station and threatened people's lives, the people's police did not retreat, they shouted “go ahead and cut me”, with their own bodies to block the mob's knife, determined to **fight with** the mob, to **protect people's lives**.]

--Legal Daily

**Example 8:** 截至3月2日1时，暴力案件已造成28名群众遇难、113名群众受伤 [As of 1 o'clock on March 2, 28 **people** have been killed and 113 **people** injured in the violence.]

--People's Daily, Guangming Daily, and Beijing Daily

In addition, Negativity, Positivity, and Superlativeness were also used frequently to establish a positive or negative attitude and emotion towards perpetrators and/or victims, intensified by degree indicators, as in the following extracts:

**Example 9:** 联合国秘书长潘基文发表声明，**最强烈谴责**这起针对平民的恐怖袭击，强调没有任何借口滥杀无辜平民，犯罪分子应被绳之以法。[U.N. Secretary-General Ban Ki-moon issued a statement **condemning in the strongest terms** this terrorist attack against civilians, stressing that there is no excuse for the indiscriminate killing of innocent civilians and that the perpetrators should be brought to justice.]

--People's Daily, Chinese Youth Daily, Beijing Youth Daily, Tonight News paper, Shenzhen Special Zone Daily

**Example 10:** 3月3日和4日，克罗地亚总统约西波维奇、议长莱科分别致函中国领导人，**强烈谴责**发生在中国云南昆明的“3·01”严重暴力恐怖事件，对遇难者表示**沉痛哀悼**，对受伤人员及家属表示**深切慰问**，并支持中国政府的反恐行动。[On March 3 and 4, Croatian President Josipović and Speaker of Parliament Leko wrote to the Chinese leadership to **strongly condemn** the “March 01” serious violent terrorist incident in Kunming, Yunnan Province, express their **deep condolences to the victims**, express their **deep sympathy** to the injured and their families, and support the Chinese government's anti-terrorist actions.]

--Guangming Daily

**Example 11:** 声明说，安理会向“这起非常丑恶的恐怖袭击”的受害者及其家人，以及中国人民和政府表示**最深切的同情和慰问**。安理会重申将根据《联合国宪章》规定的职责，**坚决打击**一切形式的恐怖主义。The statement said the Council expressed its **deepest sympathy and condolences** to the victims of “this very ugly terrorist attack” and their families, as well as to the Chinese people and government. The Council reaffirmed its determination to **resolutely crack down** terrorism in all its forms and manifestations, in accordance with its responsibilities under the Charter of the United Nations.

--Beijing Daily

Proximity also stood out, which seems to follow logically from the fact that our dataset is about a domestic attack, which is likely of general interest to the newspapers' readership due to the geographical proximity (cf. Example 12). Moreover, as will be further explained below, accentuating Proximity could also be a way of enhancing national unity and presenting a local event such as the Kunming attack as a common concern of the Chinese people (cf. Example 13, 14).

**Example 12:** 哈里说，恐怖分子选择在中国两会即将召开之际制造恐怖事件，是为了破坏中国国内的稳定，是不能容忍的犯罪行为，不仅是对中国人民的挑战，也是对进步人类的严重挑衅。[Hariri said that the terrorists chose to create a terrorist incident on the eve of China's two sessions in order to destroy **domestic stability**. This criminal act cannot be tolerated and it is a serious provocation not only to the Chinese people but also to progressive humanity.]

--Guangming Daily

**Example 13:** 此次恐怖分子的暴行，也让全体同胞明白，在无差别的恐怖袭击面前，没有人可以置身事外。[This terrorist atrocity also makes it clear to all of our **compatriots** that no one can stand in the face of an indiscriminate terrorist attack.]

--Beijing Youth Daily

**Example 14:** 刚刚发生的昆明“3·01”，这些暴恐分子毫无人性，罪行令人发指，反人类、反社会、反文明，是**我们共同的敌人**，包括新疆各族人民的共同敌人。必须以雷霆之势把这种嚣张气焰打下去。[These terrorists are inhumane, heinous, anti-humane, anti-social, and anti-civilization, and are **our common enemy**, including the common enemy of all ethnic groups in Xinjiang. We must beat down such threatening manners rapidly and violently.]

--Guangzhou Daily and Southern Metropolis Daily

Timeliness was constructed through temporal words, like “today” or “yesterday” to accentuate the closeness of the terrorist attack to the publication date (as shown in Example 15), which corresponds with news discourse's focus on the recent. Finally, Impact, Novelty, and Consonance were used relatively less (the discursive construction of these three news values are shown as Example 16, 17, and 18 respectively). This may be seen to indicate that Chinese media tend to somewhat weaken the social significance and public panic or shock caused by

the Kunming attack, or assert that the attack did not cause serious consequences due to timely government measures.

**Example 15:** 在昆明火车站站前广场，昨日一早，很多人自发来到铜牛雕像前祭奠遇难者。 [In Kunming Railway Station Square, early **yesterday** morning, many people spontaneously came to the bronze bull statue to pay tribute to the victims.]

--Guangzhou Daily

**Example 16:** 昆明站相关负责人表示，该事件除**影响** 3 趟抵昆列车的 3000 余乘客，出站列车没有受到太大**影响**，从 1 日 21 时 30 分至 23 时 50 分，从昆明共发出 9 趟列车。 [The incident, according to the person in charge of Kunming Station, only **affected** the 3 trips to Kunming train, which carried over 3,000 passengers. It did not **affect** outbound trains, which ran from 21:30 to 23:50 on the 1st, a total of 9 trains from Kunming.]

--Guangzhou Daily and Beijing Daily

**Example 17:** 恐怖暴行**震惊**了中国，**震惊**了世界，国际社会和国内各界一致强烈谴责。 [The terrorist atrocities **shocked** China and **shocked** the world, and the international community and domestic circles unanimously and strongly condemned them.]

--Southern Metropolis Daily

**Example 18:** 声明说，这一恐怖事件**再次**表明，国际社会必须进一步加强合作，打击一切形式的恐怖主义和极端主义。 The statement said this terrorist incident **once again** demonstrates the need for the international community to further strengthen cooperation to combat all forms of terrorism and extremism.

--Southern Metropolis Daily

To further examine the six main news values (i.e. Eliteness, Personalization, Superlativeness, Positivity, Negativity, Proximity), we found it is useful to distinguish between subcategories of lexical indicators (as shown in Table 3). As Figure 3 demonstrates, the application of sub-categories under the same news value often varies meaningfully.

“Elite” people were constructed mainly by selecting indicators related to public officials, institutions, or national conferences rather than professionals or experts, while indicators about the “general public”, victims and their family members, and others, like witnesses or bystanders, were used to construct “ordinary” people. Further, Negativity may refer to a negative “Attitude/emotion towards perpetrators”, “Negative attitude towards foreign nations”, “Tribute to the victims”, “Terrorist actions”, “Casualty information”, and other negative “Emotion,

attitude, and statuses”, including “fear”, “anger”, and “sorrow”, which cannot be straightforwardly assigned to the other subcategories. The negative attitude applied mainly towards victims (e.g. mourning) and perpetrators (e.g. denouncement) rather than to the government, while Positivity was mostly about government measures, expressions of national cohesion or unity, and effective treatment of the problem, like punishment and investigation towards perpetrators. The frequent use of “Emotional proximity” rather than “Physical proximity” may also indicate that Chinese media attempt to enhance national cohesion by closing the distance with the audience, strengthening their collective consciousness and shaping perpetrators as the public enemy of the nation (cf. Example 14). Moreover, these positive and negative emotions or attitudes were enhanced by “Intensifiers” under Superlativeness, indicating that the Chinese newspapers prefer selecting degree intensifiers rather than depicting scale and quantity to construct Superlativeness.

**Table 3 The subcategories or characteristics of LINV**

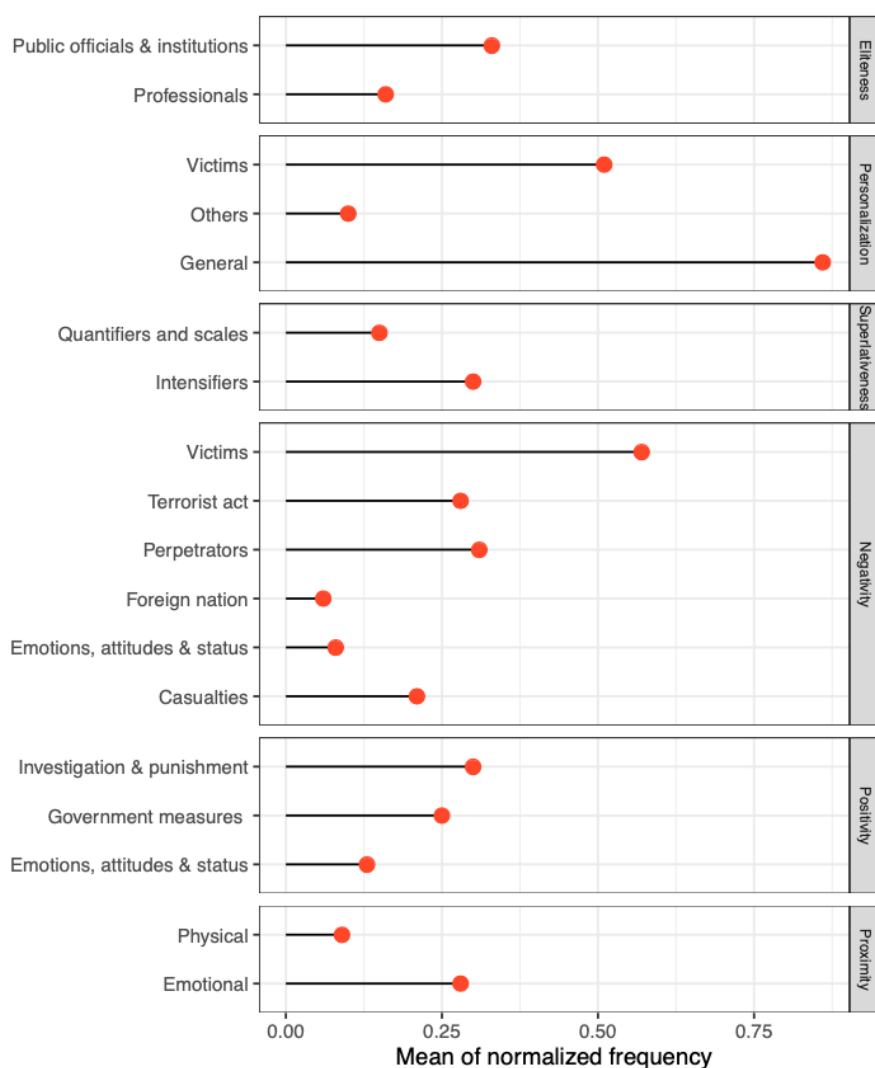
News values	Subcategories/Characteristics: high-frequent indicators
Eliteness	<p><b>A. Public officials or institutions:</b> 委员[(CPPCC) committee member]; 医院[hospital]; 法院[court]; 公安部[Ministry of Public Security]; 全国人大[National People’s Congress]; 公安机关[Public security authorities]; 主席[chairman]</p> <p><b>B. Professionals:</b> 专家[expert]; 医护人员[medical staff]; 医生[doctor]</p>
Personalization	<p><b>A. Victims:</b> 遇难者[victim]; 伤员[the wounded]; 伤者[the wounded]; 受害者[victim]</p> <p><b>B. The general public:</b> 群众[the masses]; 人们[people]; 市民[citizen]</p> <p><b>C. Other ordinary people:</b> 旅客[traveller]; 同胞[compatriot]</p>
Superlativeness	<p><b>A. Intensifiers:</b> 坚决[resolutely]; 强烈[strongly]; 全力[completely]; 共同[jointly]; 严厉 [sharply]; 迅速[promptly]; 充分[fully]; 非常[very much]; 从严[strictly]</p> <p><b>B. Quantifiers + scales:</b> 多名[many]; 很多[many]; 多次[multiple times]; 全面[comprehensive]; 广大[widespread]; 大量[mass]; 整个[entire]</p>
Negativity	<p><b>A. Attitude/emotion towards perpetrators:</b> 谴责[condemn]; 嚣张[rampant]; 残忍[ruthless]; 残暴[cruel]; 惨无人道[be brutal and inhuman]; 恶劣[wicked]</p> <p><b>B. Terrorist actions:</b> 恐怖活动[terrorist activity]; 砍杀 [slash and kill]; 暴行[atrocities]; 伤害[kill]; 滥杀[indiscriminate killing]; 砍伤[chop at]</p> <p><b>C. Tribute to the victims:</b> 默哀[moment of silence]; 哀悼[grieve]; 祭奠[hold a memorial ceremony for]; 悼念[mourn]; 致哀[express one’s condolences]</p> <p><b>D. Negative attitude towards foreign nations:</b> 别有用心 [ulterior motives]; 双重标准[double standards]; 偏见[bias]; 态度暧昧 [ambiguous attitude]; 虚伪[hypocritical]</p> <p><b>E. Casualty information:</b> 受伤[injured]; 死亡 [death]; 伤亡[casualties]</p> <p><b>F. Emotion, attitude, and statuses:</b> 令人发指[ridiculously]; 恐惧[fear]; 恐慌[panic]; 愤慨[indignant]; 愤怒[outrage]; 悲痛[grief]; 不能容忍[intolerable]; 悲伤[sadness]</p>
Positivity	<p><b>A. Government measures after the attack:</b> 打击[crack down]; 救治[treat and cure]; 维护[defend]; 稳定[stabilize]; 慰问 [condole]; 措施[measures]; 加强[intensify]</p> <p><b>B. Justice:</b> 严惩[severely punish]; 处置[disposal]; 抓获[arrest]; 侦破[uncover (a criminal plot)]; 惩处 [punish]; 审理[trial]; 破案[solve a case]; 判处[sentence]</p>

**C. Emotion, attitude, and statuses:** 团结[solidarity]; 积极[positive]; 尊重[respect]

Proximity

**A. Emotional proximity:** 我国[our country]; 同胞[compatriot]

**B. Physical proximity:** 附近[nearby]; 国内[domestic]; 境内[within the border]



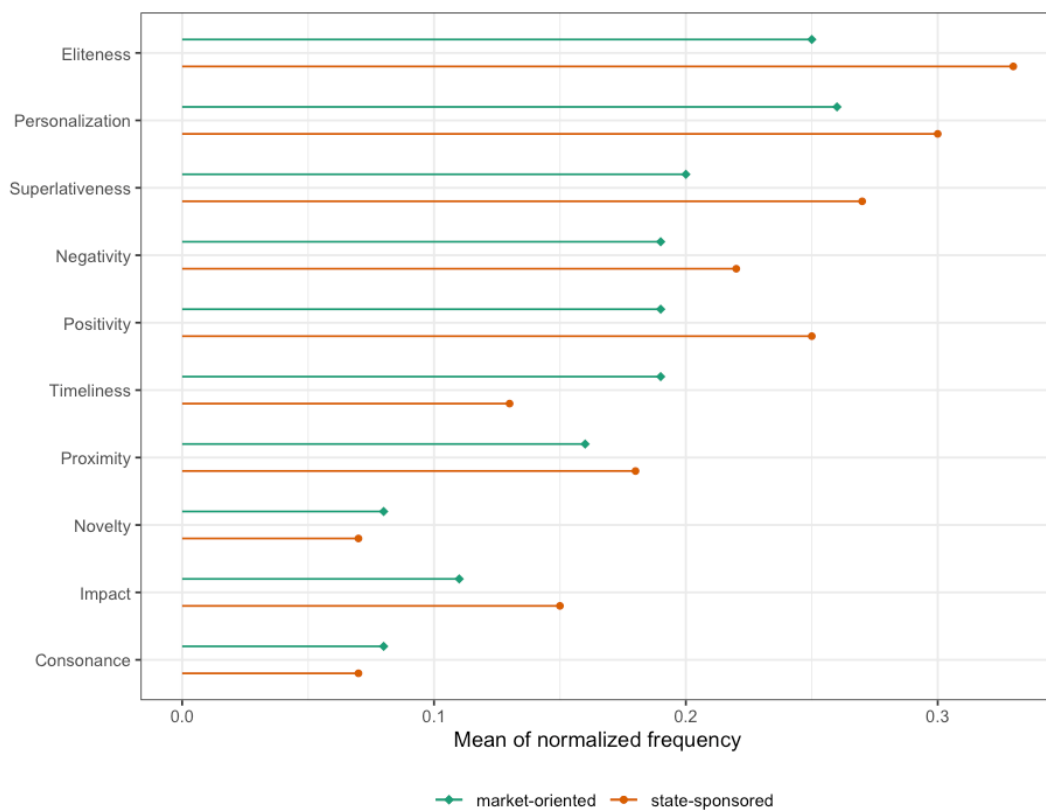
**Figure 3 Overall distribution of subcategories under Eliteness, Personalization, Superlativeness, Negativity, Positivity, and Proximity**

### 3.2 Variation across newspaper type

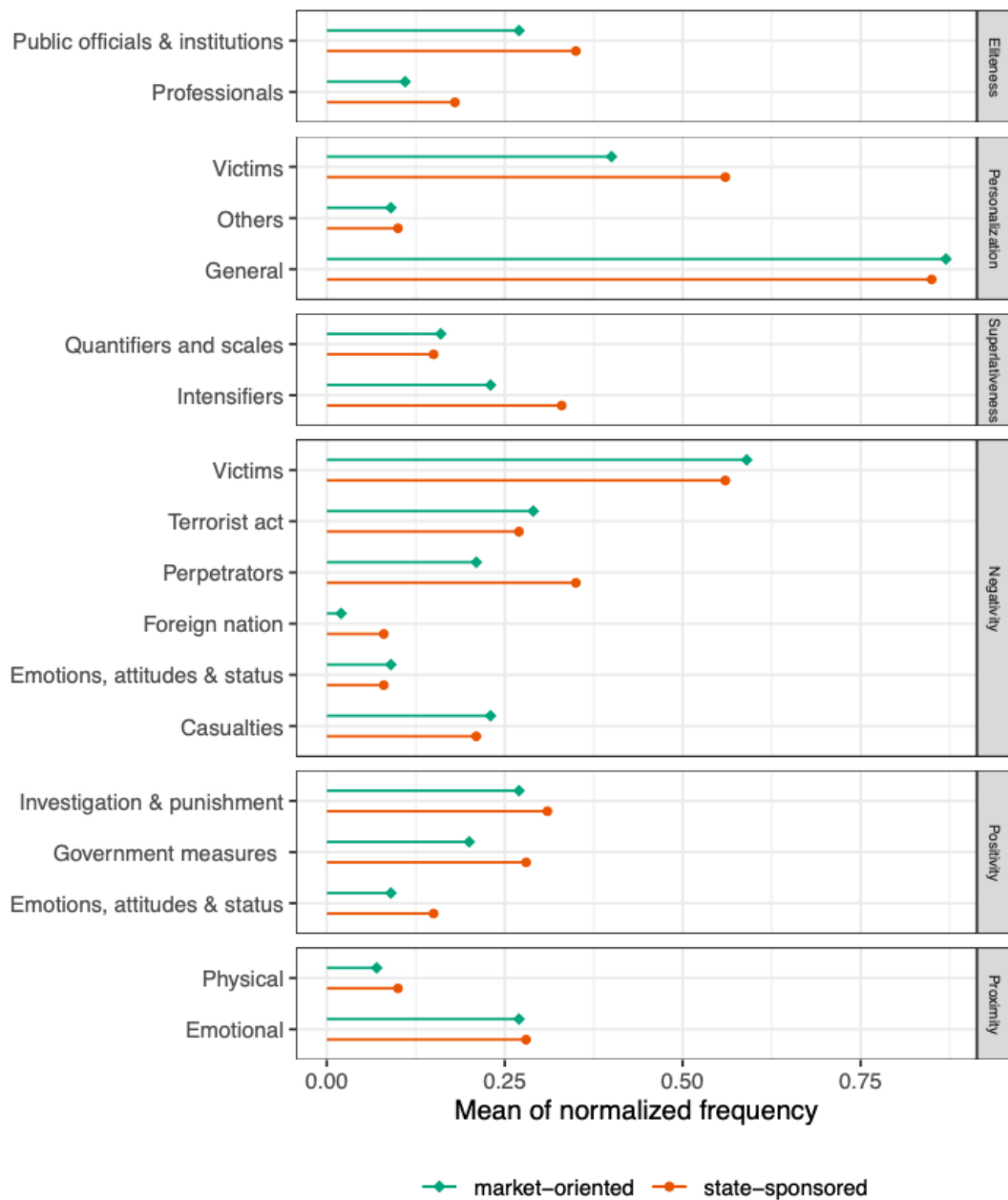
As mentioned above, we classified these 16 Chinese newspapers into two categories, either as the state-sponsored press or as the market-oriented press, and examined whether newspaper type influences the use of news values.

We will discuss three main results. First, the state-sponsored press constructed Positivity and Negativity (as shown in Figure 4) by stressing positive “Emotion, attitude, and status”,

“Government measures after the attack”, and “Justice”, and negative “Attitude/emotion towards perpetrators”. In addition, they enhanced these emotions and attitudes by using more “Intensifiers” under the news value Superlativeness (cf. Figure 5, as also illustrated in Example [9, 10, and 11](#)). The market-oriented press, on the other hand, was more likely to construct Negativity through “Terrorist actions”, “Tribute to the victims”, and “Casualty information”, while highlighting “Justice” rather than “Government measures” to establish Positivity. Second, the state-sponsored press focused on the international and political and/or governmental angles, involving criticism of (perceived) bias in international reports on the attack (i.e. “Negative attitude towards foreign nations” subcategory), and more indicators representing leaders or politicians and the news value of Impact that may involve the consequences of the Kunming attack. Third, the market-oriented press focused more on Timeliness, Novelty, and Consonance.



**Figure 4 News value variation across different newspaper types**



**Figure 5 Variation of news value subcategories across newspaper types**

### 3.3 Validation analysis

To further test the validity of our results of this computer-assisted analysis of news values, we manually annotated 30 randomly selected articles. All of these articles were coded by the first and fourth authors of this paper, who are native Chinese speakers and both very familiar with the categories and annotation system of this paper and that of similar studies on news values. Note that the coders did not depart from the extracted LINV lists, but operated purely on the basis of the more general definitions of each news category as well as the definitions of each



subcategory as explained in Table 1 and 3. Each coder independently coded every article according to these definitions, and the final results were subsequently compared. Comparing the results of the double manual annotation with the results from the automated machine annotation (as shown in Table 4) yielded a high degree of intercoder agreement (Krippendorff's  $\alpha$  reliability estimate is 0.88 for the first coder, 0.902 for the second coder, and the level of agreement between the two manual coders is 0.816). These scores indicate that both types of annotations lead to similar degrees of news values being identified in the same selection of texts, thus offering a first validation of our approach, albeit at a relatively small scale.

**Table 4 The validation of the results**

Category Name	Absolute count Coder 1	Absolute count Coder 2	Absolute count Automated annotation
Eliteness-Public officials or institutions	328	342	264
Eliteness-Professionals	33	50	34
Personalization-Victims	110	137	120
Personalization-The general public	79	68	100
Personalization-Others	104	136	126
Superlativeness-Intensifiers	152	170	179
Superlativeness-Quantifiers + scales	48	50	63
Negativity-Attitude/emotion towards perpetrators	84	86	62
Negativity-Verbs to describe the terrorist acts	94	105	74
Negativity-Tribute to the victims	88	92	75
Negativity-attitude towards foreign nations	14	21	10
Negativity-casualty information	43	59	40
Negativity-Emotion, attitude, and statuses	25	40	35
Positivity-Government measures after the attack	205	211	236
Positivity-Justice	127	120	125
Positivity-Emotion, attitude, and statuses	41	56	59
Proximity-Emotional proximity	18	20	16
Proximity-Physical proximity	2	18	10
Timeliness	29	46	35
Novelty	25	32	33
Impact	45	31	42
Consonance	43	38	40

## 4 Discussion

In this section, we will focus on the six primary news values, namely Eliteness, Personalization, Superlativeness, Positivity, Negativity, and Proximity, attempting to provide possible explanations for the observed distributions as related to the characteristics of the Chinese media system, while at the same time delving into the reasons behind the variation across newspaper types. To get a deeper insight into the use of news values, we will consider the specific political and social context in which news selection in China takes place (Luther & Zhou, 2005). With the economic reforms in the 1970s, a contradictory but interactional relationship between government and market has developed in China, dramatically influencing the evolution of the Chinese media system (Wang & Sparks, 2019; Winfield & Peng, 2005), which was transformed from “a rigid totalitarian state control mode to a state-media-market-society negotiation model” (Huang, 2007:405). Through the interactional relationship between the government and the market in this “negotiation model”, generally, news values of Eliteness and Personalization were highlighted by the state-sponsored and market-oriented press to meet both the political and the economic needs at the same time, while there were some divergences in the application of news values of Positivity, Negativity, and Superlativeness.

### 4.1 Convergences in Eliteness and Personalization

Eliteness and Personalization were constructed frequently in the Kunming news coverage by both the market-oriented press and the state-sponsored press.

#### 4.1.1 Eliteness

Guided by political control, Eliteness was prioritized by both the state-sponsored press and the market-oriented press. Specifically, one of the main responsibilities of Chinese media is to express the state ideology (Akhavan-Majid & Ramaprasad, 1998), and support the Chinese government’s efforts at maintaining the social order and stability (Lu, 1999). However, ter-

terrorist attacks put social stability and public security at risk, as acts such as bombing, kidnapping, or killing civilians (CDC, 2014) aim to cause economic damage, fear, and social disruption (Matthes et al., 2019). This typically creates a unique challenge for public communication to inform citizens, without at the same time increasing public fear (CDC, 2014). In this regard, Chinese media are expected to restore social order and maintain social stability by reducing public fear and building public confidence in their government (Rogers, et al., 2007). So, through Eliteness, Chinese media highlighted government efforts and strategies (cf. Example 1), expert opinions and suggestions (cf. Example 2), and the firm determination of domestic or international leaders/organizations to counter terrorism (e.g. Example 11), so as to provide a sense of relief, enhance public trust in their government and maintain social stability (Mumford, 2018; Yang, 2012).

The market press also stressed Eliteness to satisfy people's expectations (ranking third, cf. Figure 4). In Chinese, there is a word “国家”, including several concepts, namely “country” (from a geographical perspective), “national community”, “state apparatus”, and “government”. Unlike the premise of modern Western political thoughts, these concepts about “国家” are mixed without any distinction (Xiang, 2010:117). Guided by the concept of “国家”, “state, economy and society in China are much less clearly distinguished than is the norm in Western capitalist societies” (Sparks, 2012:61). As such, the general public does not (or is not expected to) take a skeptical attitude towards the government legitimacy and justice, but “rely on” their government, and expect their government to solve the social problems, and bring justice to them (Xiang, 2010:118-119), especially after a massive disaster. Such “public expectations” may drive the market-oriented press to foreground the news value of Eliteness (cf. Example 1, 2, and 9) (as well as to stress the “Justice” subcategory in Positivity, as Example 1 illustrated), as attracting as large an audience (i.e. ordinary people) as possible is the main aim of the market-oriented press.

Moreover, the emphasis on Eliteness by the market-oriented and the state-sponsored press could also be explained on a traditional cultural level. As Chinese people habitually defer to authorities (Loo, 2019), news articles that involve (political) leaders are more likely to become the front page, which informs the relative prominence of the news value of Eliteness (Huan, 2016). In this case, the attitude of leaders, or the measures or actions they took after the Kunming attack drew a significant amount of media attention. In this regard, within Eliteness, the subcategory “Public officials or institutions” was much more prevalent than “Professionals”, which may also underscore the argument that relaying the government attitude, actions, and stance are required not only by the government but also by the market to appeal to their audience.

An additional reason for the prominence of Eliteness is that the Kunming attack happened before the opening ceremony of the “Two Sessions” (which are annual sessions of the National Committee and have far-reaching implications for national development), which led to numerous articles about the representatives’ and leaders’ attitudes and opinions towards the events. Notably, there was a one-minute silence before the opening ceremony of the Two Sessions, which was the first time that citizens were mourned during one of the most important conferences of the Communist Party.

#### 4.1.2 Personalization

Personalization can also help to meet the needs of government and market at the same time. Steered by market forces, Chinese media have transferred their focus from informing citizens to serving audiences (Wang & Sparks, 2019). The “stories” about ordinary people, the main audience of the market-oriented press, are therefore welcomed by this kind of media type. The construction of Personalization implies more emphasis on ordinary people and reporting close to the ordinary life of the public (Huan, 2016). As such, the prevalence of Personalization in the Kunming coverage served to attract public attention through adding a “human

face”, telling the stories of the victims and witnesses (cf. Example [4 and 5](#)), or referring to the general public (cf. Example 3).

Expressing leaders’ or officers’ concerns and mourning towards ordinary people meets political needs (Huan, 2016), which may explain why the state-sponsored press used more indicators about “Victims” in Personalization, compared with the market-oriented press (cf. Figure 5). Specifically, the government aid and rescue towards people (cf. Example [19](#)), expressing the sorrow towards the victims and their family members (cf. Example [20](#)), were constructed to highlight how much the Chinese government cared about the people, served the people. As such, the ordinary people, as the object of government concern and aid, cannot be neglected by the state-sponsored press.

**Example 19:** 为妥善做好遇难者的善后工作，当地政府成立了由市领导带队的遇难群众善后工作组，按照一名遇难群众成立一个工作小组原则，对遇难者家属进行“一对一”的帮扶，切实做好家属接待、心理抚慰，了解诉求和意愿，全力协助处理善后工作。 [In order to properly **deal with the aftermath, the local government** set up a working group led by the municipal leaders for the victims. In accordance with the “one-to-one” **support** principle, each working group took charge of one corresponding victim and their families, and effectively did a good job of family reception, psychological **comfort**, understanding the demands and wishes, and **fully assisting in dealing with the aftermath.**]

--Beijing Youth daily, Southern Metropolis Daily, Shenzhen Special Zone Daily, Beijing Evening News

**Example 20:** 3月3日，全国政协十二届二次会议开幕会上，全体与会人员为3月1日在昆明火车站发生的严重暴力恐怖事件中遇难的群众默哀。 [At the opening meeting of the second session of the 12th session of the **Chinese People’s Political Consultative Conference (CPPCC)** on March 3, all participants **observed a moment of silence for the victims of the serious violent terrorist incident that took place at Kunming Railway Station on March 1st.**]

--People’s Daily

## 4.2 Divergences in Negativity versus Positivity

However, besides elements of convergence, the different aims and responsibilities of these two newspaper types also lead to divergences, which becomes particularly evident in their respective treatment of the news values of Negativity and Positivity.

Coverage of negative social problems is more likely to attract ordinary people's attention, while the government needs "a positive spin" to highlight the solution to solve the "conflict", rebuild social order, and enhance its legitimacy (Stockmann & Gallagher, 2011:444). Moreover, "[p]ositive news may appear in the media as embedded in bigger negative news events" (Leung & Lee, 2015:292). Although a terrorist attack is a negative event per se, there are still numerous articles or paragraphs that report on the event from a positive perspective, mainly including the (official) measures and aid after the attack, and the treatment or punishment of the offenders to indicate "how caring, considerate, or concerned power elites are about risk victims or risk events" (Huan, 2016:119). In the meantime, the news value of Positivity plays a role in reducing public panic, improving public trust in their government, and bringing hope to the public (Leung & Lee, 2015), which also reflects the highlighted ideology of "social harmony" in Chinese media (Loo, 2019:1). In this vein, the application of Negativity and Positivity in the reporting of the Kunming attack could again be seen as indications of how Chinese newspapers attempt to circumvent the dilemma between government control and economic pressures (Huan, 2016).

So, the state-sponsored press engaged more in expressing a negative "attitude/emotion towards perpetrators", which may create a "common enemy" and attribute the responsibility to perpetrators in order to emphasize that the Chinese government and Chinese people stand together. The use of the "Emotional proximity" subcategory (like the LINV "我们共同(的敌人) [our common (enemy)]") may also help construct the "common enemy" (cf. Example 14). As such, the government prefers to rebuild an image of itself as reliable and benign by depicting timely "Government measures after the attack" under Positivity, relaying positive "Emotion, attitude, and status", and attributing the responsibility to the "common enemy" by strongly denouncing perpetrators or describing their atrocities in Negativity.

Instead of highlighting government efforts, on the contrary, the market-oriented press focused more on the “Terrorist actions”, “Tribute to the victims”, and “Casualty information” in Negativity to “enlarge” rather than “repair” the “scar”, and render negative (i.e. sadness, and fear) rather than positive emotions, attempting to obtain more audience attention to satisfy market needs. Put differently, terrorist attacks essentially share similar characteristics with conflict, accidents, death, injuries, crime, violence, etc., which are undisputedly negative. Detailed information about the description of the atrocities (i.e. “Terrorist actions” under Negativity) served to vividly construct the actual situation on-site to the public, which may trigger negative emotions, like public fear and concerns. These “negative” reports are more likely to draw readers, thus satisfying market needs but being divergences in political needs.

#### **4.3 Divergences in Superlativeness and Scope**

Finally, according to the collocation analysis, Superlativeness was frequently used together with Negativity or Positivity to enhance emotions, highlighting the strictness of the punishment the government imposed, the effectiveness of the measures that relevant departments took, or the strength of the emotions felt towards terrorists. Notably, some intensifiers under Superlativeness with strong markers of modality (e.g. “certainly”, “inevitably”, “undoubtedly”, etc.) may indicate an “authoritative voice”, expressing the government standpoint at the expense of other voices (Wang, 2008). The discrepancy in the use of “Intensifiers” between the state-sponsored press and the market-oriented press may support this argument to some extent, as conveying the government voice is the primary role that the state-sponsored press should play, but it is not the case for the market-oriented press. In order to meet market needs, the aims of the market-oriented press are more diversified than those of the state-sponsored press. Moreover, the “Quantifiers and scales” subcategory was used more in the market-oriented press, which may be associated with the description of casualties or detailed information about the scene of the attack.

One of the possible reasons for the emphasis of “Intensifiers” in Superlativeness is proximity (Ruigrok & Van Atteveldt, 2007), which means news reports tend to cover local events with more details compared to stories about other regions and countries. The Kunming attack is a domestic event, and the news reports involved more details, such as treatments, emotions, and attitudes, while Superlativeness is also used to enhance the degree. However, this work just analyzed the reports about the domestic attack; further validation in the contexts of international attack is needed.

Additionally, due to geographical proximity (Ruigrok & Van Atteveldt, 2007), the market-oriented press almost exclusively focused on the domestic angle (as shown in the mean of indicators under the criticism of Western biased reports in Figure 5), while the state-sponsored press also included an international and multinational perspective, like the criticism of what were perceived to be Western biased reports of the Kunming attack (cf. Example 21) and accusations of prejudice against other ethnic groups, especially for Uyghur people (cf. Example 22). This perspective may be helpful for the Chinese government to promote national unity by creating an external enemy.

**Example 21:** 外国专家和人民网网友表示，一些西方媒体有关云南昆明暴力恐怖事件的报道阴阳怪气、逻辑混乱，甚至别有用心地挑拨离间，这种做法背弃了最基本的职业道德，应该深刻反省 [Foreign experts and netizens of the People's Daily Online said that the reports of some Western media on the violent terrorist incident in Kunming, Yunnan are **bizarre**, illogical and even **sow discord with ulterior motives**, which **betray** the most basic professional ethics and should be reflected upon deeply.]

--People's Daily

**Example 22:** 恐怖分子与我们的较量，不是民族问题，不是宗教问题，而是政治问题。维吾尔族是勤劳勇敢、热爱和平的民族；伊斯兰教是倡导和平、反对暴力的宗教。恐怖分子，不代表哪个民族，也不代表哪个宗教，相反，是民族的败类，教义的叛徒，是人类社会共同的敌人。 [The fight between terrorists and us is not an ethnic issue, not a religious issue, but a political issue. The Uighurs are a hard-working, brave, peace-loving people; Islam is a religion that advocates peace and opposes violence. Terrorists, instead of representing any nationality or religion, are national scum, traitors to doctrine, and common enemies of human society.]

--Beijing Youth Daily



## 5 Conclusion

Overall, this paper attempted to improve the corpus-assisted DNVA approach to make it possible to semi-automatically reveal the construction of news discourse based on large-scale datasets. Our LINV lists, which were derived from Chinese newspapers, can also serve as examples or resources for future research. Furthermore, this paper utilized the Kunming attack as an example of competition and mutual goals between the state-sponsored press and the market-oriented press in order to provide a better understanding of the Chinese media system. More specifically, we adapted Bednarek and Caple's framework to fit our research purposes and dataset, and in doing so refined their set of news values into 18 subcategories which enabled us to deepen and add nuance to the analysis of the discursive construction of news in the Chinese press and differences occurring between newspaper types.

To be specific, from a *methodological perspective*, we explored the possibility of quantitatively detecting news values by combining a computer-assisted approach and DNVA, providing a systematic and feasible methodological framework to extract language resources that represent news values (i.e. LINV), quantifying the distribution of 10 news values by calculating the mean of normalized frequency of LINV, and attempting to facilitate future quantitative DNVA studies. From a *resource perspective*, previous DNVA studies generally focused on news value construction in English language discourses. This work attempts to fill in the resource gap by providing an open-source list of Chinese language resources, especially (yet not exclusively) for terrorism reporting. From an *empirical perspective*, we found that the news value of Eliteness was dominant in news reports on the Kunming terrorist attack, followed by Personalization, Superlativeness, Positivity, Negativity, and Proximity, while Impact, Novelty, and Consonance were accentuated relatively<sup>5</sup> less. Moreover, with the interaction between government and market in the Chinese media system, the state-sponsored press

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<sup>5</sup> “Relatively”, in this case, refers to relative, in comparison to other news values.

and the market-oriented press converged in foregrounding the news values of Eliteness and Personalization, but diverged in the application of the news values of Positivity, Negativity (especially “Attitude/emotion towards perpetrators”, “Terrorist actions”, and “Tribute to the victims”) and Superlativeness to establish the idea of a benevolent and responsible government while serving market demands to attract readers by describing the actual events in vivid details.

However, the approach we adopted also entails a number of limitations. First, since there is not a “closed list of news value devices” but “an open-ended range of lexical or grammatical resources” to construct news values (Potts et al., 2015:168), it is inevitable that linguistic resources also indicative of particular news values are missed. Such a problem would be avoided in a more fine-grained manual coding approach, although this would not fit within a computer-assisted quantitative approach, as adopted for this dataset. Second, we did not manually check all concordance lines, but only a random sample, which could have resulted in some errors. This is because one of the aims of this paper is to explore the potential of quantitative, machine-assisted DNVA methods while minimizing human involvement. Moreover, we conducted extensive exploration and revision, as well as efforts to filter and fine-tune the list of LINV, which we believe will provide useful lexical resources for future quantitative DNVA analyses that may further test, expand or refine it. Third, this work limited itself to news coverage of the Kunming attack in the Chinese press, and did not study news coverage about other international terrorist attacks or news reports about the Kunming attack in international press reports, so we cannot make claims about whether the choice of news values will vary across countries or different attacks. To achieve this aim, further research will be set up to collect data of news reports about international terrorist attacks in Chinese media, as well as news reports about the Kunming attack in non-Chinese media, in order to compare possible differences between domestic versus international attacks, as well as domestic versus

international reports, so as to fully reveal how terrorist attacks were discursively constructed by newspapers.

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