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Different actors, different factors? A comparison of the news factor orientation between newspaper journalists and civil-society actors

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Abstract: News factors can be conceptualized as general relevance indicators guiding the attention of all humans. However, that doesn't mean that they are the only factors influencing selection processes or that all news factors have the same importance across different actor types. Within the concept of news factors it is still unclear to what degree those news factors also apply to the communication outside of traditional mass media. We therefore ask whether and how actors with varying degrees of professionalization employ news factors in their communication differently. To answer our research question, we conducted a quantitative content analysis and compared the coverage in traditional newspapers with the communication of civil society actors with varying degrees of professionalization. We analyzed the relevance of news factors within the presentation of a specific issue, namely climate change in Germany. Our results show that news factors are – at least partly – also applied by non-journalist actors. The mass media and the more professionalized civil society actors do not apply news factors more strongly to their communication than do non-professionalized civil society actors. Instead, we find that different actors focus on different news factors.

Keywords: news factors, news values, news selection, civil society, climate change

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1 Introduction

Previous research has shown that the mass media do not simply reflect reality. News organizations and journalists are confronted with a huge amount of information and limited space and time within which to disseminate it; they must therefore select “newsworthy” events (Bennett, 2011; Tuchman, 1978). Different approaches have attempted to explain the selection processes applied by traditional mass media (Shoemaker and Reese, 1996). One of the most prominent of these is the news value approach. In their seminal study, Galtung and Ruge (1965) stated that specific criteria, such as elite-persons and an event’s level of conflict or damage, influence the newsworthiness of events and whether they gain mass media attention. Several studies have confirmed the validity of, at least some, news factors for traditional mass media and thereby for the selection routines of professional journalists (i.e., Harcup and O’Neill, 2001; Østgaard, 1965; Peterson, 1979, 1981; Staab, 1990).

More recent approaches see news factors not only as selection criteria for journalists, but as general relevance indicators guiding the attention of all humans (Eilders, 2006, p. 9). Several studies confirmed, for example, that news factors are also valid for audience selection processes (e.g., Eilders, 1997; Eilders and Wirth, 1999; Fretwurst, 2008).

However, conceptualizing news factors as generally valid relevance indicators, neither means that they are the only factors influencing selection processes nor that all news factors have the same importance across different actor types (Maier, Stengel, and Marschall, 2010). As news factors are a fixed element of the socialization and education process of journalists – and therefore serve as professional selection routines – one can assume that they have greater importance in the communication of professional journalists than for other, less-professionalized actor types (i.e., civil society actors). However, within the concept of news factors and previous research it is still unclear to what degree news factors also apply to communication by these other non-professional actor types. Our study attempts to widen the applicability of the news value approach by examining whether the approach is also valid for actor types outside traditional mass media. We ask whether and how actors with varying degrees of professionalization employ news factors in their communication differently.

Another shortcoming of the research concerning news value theory is that it focuses hitherto on the selection of whole events and neglects that selection processes also occur in the later stages of the news selection process (e.g., in deciding how an issue is presented and which aspects are emphasized). The connection between selection processes and the manner in which an issue is presented in an article was already formulated by Galtung and Ruge (1965,

p. 71) in their distortion hypothesis, which states that the news factors that have led to the selection of an issue are emphasized in the article production process. Following this assumption, we claim that news value research should not only be applied to the selection of issues (as a first decision in the selection process), but also to the selection of specific aspects within an issue. Our study thus makes a twofold contribution: It tests the applicability of news value theory to different actor types and makes it amenable for concepts dealing with framing (Entman, 1993) and second-level agenda setting (Kiousis and McCombs, 2004).

The article proceeds as follows: First we briefly introduce news value theory and discuss its applicability to different actor types and to different stages in the selection process. Second, we present our methodology based on a quantitative content analysis of the issue of climate change in Germany by comparing traditional mass media communication and that of civil society actors. We then present our results before we conclude with a discussion.

2 News value theory

As early as 1922, Lippmann stated that, due to its complexity, media could not represent reality in an objective way. At the same time, journalistic representations of reality are not arbitrary; rather they follow certain patterns and routines. In their seminal studies, Östgaard (1965) and Galtung and Ruge (1965) identify some of these patterns as “news factors”, that is, as those attributes of events which make them newsworthy. The unexpectedness of an event, for instance, and the degree to which it is driven by actors belonging to the elite, pushes coverage. According to this logic, the more news factors apply to an event, the greater its overall news value (Galtung and Ruge, 1965). The obvious downside of this view is that news factors appear as predetermined, invariant givens of a reported event: “The different news factors are regarded as causes (independent variable), the journalists’ reporting is seen as an effect (dependent variable)” (Staab, 1990, p. 427). This problem was addressed by the subsequent development of the concept as it experienced a constructivist turn: News factors were now no longer seen as genuine attributes of events but as journalistic hypotheses of reality (Schulz, 1976; Strömbäck, Karlsson, and Hopmann, 2012). Thus, the decision to publish a news story is based on the journalist’s perception of an event; that is, journalists do not so much reflect reality as they construct it. This extends from the decision to report an event to how the story is presented – which actors are cited in which order and which aspects of an

issue are emphasized (“functional model of news factors”, Staab, 1990, p. 437; see also Westerståhl and Johansson, 1994). In doing so, “journalists, rather than observing world events and selecting the ones with particular news value, would intentionally search for events that serve their purpose and ‘make’ them newsworthy by assigning particular features to them” (Eilders, 2006, p. 12).

Following the constructivist approach, Shoemaker and Reese (1996, p. 106) define news factors as “audience-oriented routines”. Journalists, they suggest, select the news that is most relevant to the audience. In doing so, news value theory helps to predict what the audience will like and directs gatekeepers to make consistent story selections (Shoemaker and Reese, 1996, p. 106). From this perspective, news factors are conceptualized as psychological mechanisms for selection, serving as collective anthropologic relevance indicators (Shoemaker, 1996; Shoemaker, Tsan-Kuo, and Brendlinger, 1987; Shoemaker, Danielian, and Brendlinger, 1992; see also Eilders, 2006).

2.1 The relevance of news factors for different actors

These assumptions allow news value theory to be transferred to the communication of other actor types outside traditional mass media. In general, we can assume that all actor types outside traditional mass media (political actors in the center, economic actors as well as civil society actors) adhere to news factors as all of them try to reach certain target groups with their communication. In this paper we will focus on civil society actors for two reasons: First, it is their communication that has been judged as most valuable for the quality of a debate (Calhoun, 2011; Downey and Fenton, 2003; Habermas, 1996) and second, it is here where we can at least partly observe communication that is less professionalized. We define civil society actors here as those who have no institutionalized access to political power – for example, non-profit-organizations, social movements, and single citizens/laypersons (Kriesi, 2004).

Nevertheless, there might still be differences between different actor types in the relative importance they ascribe to single factors. Depending on their institutional setting, their professional background, their role and the target group they have in mind, different actor types will select other issues and/or emphasize different aspects of them. Based on what we know from the existing studies, it is especially the degree of professionalization that influences to what extent an actor’s communication is oriented towards news factors: The more established the communicator is and the more organized and professional his/her communication, the more likely his/her communication will follow news factors. By following news factors, we mean that the more professional actors

apply these factors more strongly to their communication than the less professionalized actors. We thus regard it as a relational concept which only allows us to say which actors employ specific news factors more or less strongly in their communication.

Previous research shows that political parties, for instance, or other well-established civil society actors have similar communication to traditional mass media. A case in point is Gerhard's and Schäfer's (2010) study in which they compared newspaper articles with the most important websites of a variety of actors, which they had identified through search engine results (which we know favor well-established actors). They found that civil society actors, as actors with little political influence, were not mentioned more often online than offline (see also Koopmans and Zimmermann, 2003). With regard to news factors this means that the actors' influence online is as important as offline, and there are no differences concerning the news factor elite-persons.

Focusing on less professionalized actors, Eilders, Geißler, Hallermayer, Noghero and Schnurr (2010) showed that some news factors such as "benefit", "facticity", "prominence", and "conflict" appear to be less relevant in political blogs than in professional journalism, whereas others such as "damage", "continuity", and "personalization" are equally important (Eilders et al., 2010). In addition to this and as a consequence of their non-professional status, citizen journalists heavily rely on ordinary citizens as sources in their articles as they usually lack access to established (political) actors, as Reich (2008) shows. Therefore, the news factor "elite-persons" is less central in their reporting than in traditional media. Accordingly, Scherer, Hefner and Weisgerber (2012) found in their study that the news factor "elite-persons" was not important for blogs (as communication of less professionalized actors/laypersons), whereas "facticity", "prominence" and "reach" had a positive effect on the selection of news.

On the whole, research findings give first indications that less professionalized actors seem to employ the news factors in a different way. However, what is lacking is a systematic comparison of different actor groups which systematically takes up variations in the degree of professionalization.

Based on the above-mentioned considerations, we will distinguish between civil society actors according to their degree of professionalization. Our general hypothesis is that the more professionalized an actor is, the more important are news factors in their communication. Professionalization is a very loosely defined term. Following the sociological field of professionalism a profession can be defined as "an occupation that controls its own work, organized by a special set of institutions sustained in part by a particular ideology of expertise and service" (Freidson, 1994, p. 10). Professionalism refers to "that ideology and special set of institutions" (Freidson, 1994, p. 10) and includes an "en-

hancement of the quality of service” (Hoyle, 2001, p. 146) or “practice” (Sockett, 1996, p. 23). Following these definitions, we understand professionalization of civil society actors as a combination of the degree of organization and the style of the communication output, meaning that communicative efforts are strategically directed toward the mass media through press releases or separate, dedicated media sections on the websites. In concrete we distinguish between three actor types on the side of civil society:

1. Professional civil society: organized actors who exchange professional communication with the mass media (e.g., professional non-governmental organizations (NGOs) such as Greenpeace). These organizations often have the resources to finance a highly professionalized communications department with public relations specialists working to spread their aims and messages.
2. Semi-professional civil society: organized actors but without professional communication with the mass media (e.g., a small activist group).
3. Single citizens/laypersons: non-organized actors without professional communication with the mass media (e.g., a single blogger).

These three groups of actors are compared to those actors whose news-factor orientation is not disputed: professional journalists working for traditional mass media.

2.2 The relevance of news factors for later stages in the selection process

We analyze the news factors applied in the communication about one issue (climate change) and do not compare the selection of different events. Thereby we follow the constructivist interpretation of news value theory (see above) and assume that news factors also structure how an issue is presented. As Kepplinger (2008) states, “The term ‘news factors’ denotes characteristics in news reports with respect to the events covered.” This idea is also formulated by Staab (1990, p. 437) in his functional model of news factors in news selections. He states that the journalists decide which events to cover as well as in which specific aspects of an event he or she is interested. This interest can be seen in the emphasized news factors in a document. This assumption, that the logic of selection exceeds the selection of events, was already formulated by Galtung and Ruge (1965) in their distortion hypothesis: “Once a news item has been selected, what makes it newsworthy according to the factors will be accentuat-

ed” (1965, p. 71). To follow up this idea, we apply news value theory to the selection of different issue aspects, such as an issue’s presentation.

By extending news value research beyond an issue-salience perspective, we may link news value research to second-level agenda-setting or framing. While second-level agenda-setting refers to the salience of issue or a candidate’s attributes (see, for example, Golan, Kioussis, and McDaniel, 2007; Kioussis and McCombs, 2004), framing refers to more complex argumentation patterns: “To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman 1993, p. 52). Both processes (second-level agenda-setting and framing) include selection processes – the communicator has to decide which actors to cite and which certain aspects of an issue he/she wants to emphasize. Yet, by which criteria these processes are driven has not been studied. By bringing news value research to framing, we follow one of the core claims of today’s framing research that calls for going beyond the demonstration of frames to “specify the conditions under which frames emerge” (de Vreese 2005, p. 60).

3 Methods and measurement

3.1 Selection of the issue: The discussion about climate change in Germany

To answer our research questions, we selected the issue of climate change, which fulfills important prerequisites: It is an issue which has international relevance and in which many different actors, including actors from the civil society, play an active role. Additionally it is an issue where several different aspects can be discussed (i.e., causes, consequences, etc.). These characteristics make the issue suitable for studying the occurrence of news factors as one can assume that different news factors may play a role (see below).

The discussion in Germany is dominated by the position of climate advocates; that is, that climate change is mostly human-induced. In 2013, a special Eurobarometer study was conducted, wherein 27 % of Germans mentioned climate change as the single most serious problem facing the world as a whole (European Commission, 2014); climate change is ranked second after poverty, hunger and lack of drinking water (36 %).

We analyze the discussion about climate change from June 1, 2012 to May 31, 2013, thereby examining the news factors emphasized in communica-

tion by professional journalists, professional civil society actors, semi-professional civil society actors and laypersons.

3.2 Sample: Communication of professional journalists

To measure how far professional journalists apply news factors to their communication, we analyze the discussion about climate change in a broad sample, consisting of 10 German national newspapers and five magazines (*BILD*, *BILD Sunday edition*, *Süddeutsche Zeitung*, *Die Welt*, *Welt Sunday edition*, *Der Spiegel*, *taz*, *Focus*, *Die Zeit*, *Frankfurter Rundschau*, *GEO*, *Stern*, *FAZ*, *FAZ Sunday edition*, *Financial Times Deutschland*, and *Handelsblatt*). The aim was to include the most important news outlets with nationwide circulations in terms of their role as opinion leaders on the topic of climate change. Out of all the articles containing the keywords “climate change” or “global warming” (in German: *Klimawandel* or *globale Erwärmung*), we drew a monthly random sample of 35 articles for further analysis. So the present study includes 420 articles on climate change.

3.3 Sample: Communication of civil society actors

To study the communication of civil society actors, we focus on their online communication for two reasons: First, the internet with its easy access and low costs bears many advantages – especially for not so well-established actors. Online has become one of the most important means of communication between civil society actors’ and the public. Second, the internet makes the communication of less professionalized actors visible and accessible not only for the public but also for research. Therefore, ‘online’ serves in our study as a channel which we use to get access to the communication of civil society actors. Our aim is not to compare the structure of offline and online communication as different media.

The sample originally contained 420 documents spread over the year. How did we identify a sample of civil society actors with variation in their degree of professionalization all dealing with the issue of climate change? The most often used strategy utilizes Google’s hit-ranking feature: sampling the most prominently listed actors. However, this procedure is problematic, as the Google algorithm favors elite and professionalized actors. Consequently, we follow another sampling strategy using hyperlinks as the constitutive architectural component of the internet to generate an online sample of civil society actors’ web pages.

To do so, we first defined the eight most important online civil society actors in the climate change issue, four climate skeptics and four climate advocates, through clean Google searches (keywords: *Klimawandel* and *globale Erwärmung*, including inflections), reviews of the relevant literature, and expert interviews. From each of the identified civil society actors, we fed the web page that most centrally dealt with climate change (see Appendix A) into a web-crawling software: Govcom.org's Issue Crawler (<https://www.issuecrawler.net/>; pre-tests showed that higher numbers of source seeds resulted in networks that were too large to be processed further).

The web-crawler then follows all URLs that are internal to the website and no more than two steps away from the source seed. From the internal web pages, the crawler first collects all outlinks (i.e., hyperlinks that point to external web pages) and then performs a final analysis to see which of the webpages that are now part of the network have hyperlinks running between them.

This snowballing technique creates an online network in which the actors are the nodes and the hyperlinks connecting them are the edges. It is, however, not yet an issue network, as the web crawler follows hyperlinks irrespective of the target to which they point. In other words, a hyperlink network generated by the snowballing procedure always contains a substantial amount of noise; that is, websites that have nothing to do with climate change. In order to eliminate the actors that are unrelated to the issue, all web pages were passed through indexing software, the Visual Web Spider, which performed a keyword search (*Klimawandel* or *globale Erwärmung* plus their English equivalents, climate change and global warming) and discarded all those that did not match. This second step generates a hyperlink issue network in which all actors and their web pages are engaged in the climate change debate. The networks were produced on a monthly basis from June 2012 to May 2013. It is important to note that the networks generated in this way were not confined to German actors but, in line with the boundless structure of the internet, were only delimited linguistically.

On these issue-specific networks, we used a sampling technique similar to Kalton's (1990) probability proportional to size sampling. The sampling had two steps. First, we drew a sample of 35 domains out of each monthly network. The domains were weighted by their inlinks so that more important sites had a greater chance of being included in the sample. As most domains in the networks included several web pages, in the second step we randomly selected and coded one page for each of the domains from step one. As a last step, only those pages that originated from civil society (i.e., blogs, non-governmental organizations, social movements, or scientific actors/universities) were included in this study. Our final online sample consists of 219 documents of civil

society actors: 68 of professional civil society actors (e.g., a professional NGO), 47 of semi-professional civil society actors (e.g., a small group of activists) and 104 of single citizens/laypersons (e.g., a single blogger).

3.4 Quantitative content analysis

To answer our research questions, we conducted a quantitative content analysis of newspaper articles and civil society's online documents dealing with climate change based on a codebook. The coding took place on two levels: First, there were several variables on the document level (name of the newspaper/URL, date, etc.). Second, the coder identified the three most important actors (MIAs) who took a position on climate change based on the length of their contribution (average number of cited MIAs: professional journalists: 1.90; professional civil society actors: 2.06; semi-professional civil society actors: 2.43; single citizens/laypersons: 2.44). The unit of analysis is the actor-sequence in a specific document (newspaper articles/professional journalists $n = 800$; professional civil society actors = 140; semi-professional civil society actors = 114 and single citizens/laypersons = 254). Six trained coders completed the coding. Krippendorff's alpha for the actor variables was .87 and for the content variables .74 (see Appendix B for detailed reliability scores for each variable).

Although research has found proof of the basic assumptions about news value theory, there is no 'standardized list' of factors used in all studies. In fact, there are many different but essentially similar lists of news factors (see Allern, 2002; Bell, 1991; Eilders, 2006; Harcup and O'Neill, 2001; Hetherington, 1985; Shoemaker and Reese, 1996). In our study we follow Eilders (2006), who identifies relevance, damage (sometimes measured as aggression/conflict), elite-persons, continuity, proximity and elite-nations as factors that were found to be most important in previous research. Due to our focus on the selection of issue aspects we have to disregard continuity. Relevance (as number of persons who are affected by an event) would have been very interesting but unfortunately cannot be measured with our data and thus had to be excluded as well. The remaining news factors were measured as follows:

In order to study the actor-based news factors (elite-person, elite-nations, proximity), we rely on the most important actors (MIA) coded.

- *Elite-persons*: This factor describes the political (or economic) influence of people – the higher the political influence, the more newsworthy that actor is (cf. Eilders, 1997; Maier, Ruhrmann, and Stengel, 2009). To measure the influence of actors according to Eilders (1997), two different dimensions are relevant: their degree of organization/institutionalization and their scope

- (national vs. international). Accordingly, we classified each MIA as either (1) non-elite, that is, private persons/citizens, the public or bloggers (independent from their scope) (2) medium-elite, that is, political actors/institutions and companies on regional and national levels, NGOs on regional and national levels, universities, and countries, or (3) elite-actors, that is, political actors/institutions and companies and NGOs at international level.
- *Elite-nations*: This factor describes the status/power of a nation from which a MIA comes. We used the country classification list developed by Maier et al. (2009). Each MIA originating in a country (abandoning inter- and supranational organizations) was classified according to country of origin (from 1 = lowest status up to 4 = highest status).
 - *Proximity*: Proximity is defined as the cultural distance between the country/the language region from which the actor comes and the country where the newspaper/document is published (Scherer, Tiele, Haase, Hergenröder, and Schmid, 2006). Each MIA was classified as either stemming from its own country or the same language region (= 3), a supranational organization (= 2) or another country/language region (= 1). For example, from a German perspective, German-speaking actors are closest, followed by institutions of, for example, the EU (of which Germany is a member) and then by other countries/other language regions (e.g., US actors).

To study the content-based news factors (damage and aggression/conflict) we rely on the utterances of the most important actors selected. Hereby we analyzed addresses mentioned, their position on climate change, and other content-based aspects of climate change (e.g., whether they mentioned positive or negative consequences).

- *Damage*: Damage refers to the mentioning of negative consequences of climate change by a MIA (1 = mentioned and 0 = not mentioned).
- *Aggression/conflict*: This factor describes the controversial nature of an issue; that is, to what degree conflicts are mentioned. In the study, we measured this news factor in two ways: First, the subdimension *actor criticism* asks whether an MIA criticizes another actor, or ‘addressee’ (1 = addressee criticized and 0 = no [criticized] addressee mentioned). Second, we measured how controversial the cited standpoints were in a document (*controversy*). In the case of climate change, this means that a document is controversial (1) in the case that climate advocates and skeptical voices are cited as MIAs. No controversy (0) occurs when only climate advocates or only skeptics express their viewpoints. To do so, we measured the position of MIAs on climate change based on two variables: The first variable asked whether the MIA expressed that climate change occurs (yes, no, not identi-

fiable), and if yes, if the MIA perceived climate change as a problem (yes, no, not identifiable). Climate advocates and skeptics were defined in combination of the two variables (Table 1). The category ‘ambivalent’ was excluded in the further analyses as it is not fully clear if these MIAs share a skeptical opinion towards climate change or belong to the advocates.

Table 1: Measurement of the position on climate change.

Occurrence of climate change	Climate change as a problem	Position
yes	yes	advocates
yes	no	skeptics
no	–	skeptics
yes	both positions are discussed equally	ambivalent
yes	not identifiable	ambivalent

4 Results

Our research question asked how the degree of professionalization influences the orientation towards news factors of different actor types. We included in our study actor- (elite-persons, elite-nations, proximity) and content-based news factors (damage, actor criticism, and controversy).

To answer our research question, we first consider the actor-based news factors. We conducted three separate ANOVAs with the three news factors (elite-persons, elite-nations, and proximity) as dependent variables and the different actor types (professional journalists working for the mass media, professional civil society actors, semi-professional civil society actors and single citizens/laypersons) as the grouping variable (Table 2).

For the news factor elite-persons we see the expected pattern: The more professionalized the actor’s communication, the more important the news factor elite-persons, which represents political or economic influence. Laypersons cite mostly non-influential civil-society actors (i.e., bloggers), whereas the most professionalized civil society actors (i.e., big NGOs) show a similar citing pattern as traditional mass media concerning influential actors (i.e., politicians). They seem to adapt the style of communication used by traditional mass media. Politicians are mainly cited in the traditional mass media and in the documents of the most professionalized civil society actors. The elite bias of the mass

Table 2: Actor-based news factors.

	Elite-persons ¹	Elite-nations ²	Proximity ³
Professional journalists*	2.04 ^{a,b}	3.07 ^a	2.42
Professional civil society actors	2.07	3.30	2.55
Semi-professional civil society actors	1.85 ^a	3.20	2.41
Single citizens/laypersons	1.79 ^b	3.36 ^a	2.44

1. $F(1288/3) = 22.82, p < .001$, post-hoc-tests: Scheffé ($p < .05$)

2. $F(958/3) = 12.00, p < .001$, post-hoc-tests: Scheffé ($p < .05$)

3. $F(1183/3) = 1.02$, n.s.

a, b, c: Same letters indicate significant differences between the respective subgroups $p < .05$.
 Elite-persons: from 1 = lowest influence to 3 = highest influence / Elite-nations: from 1 = lowest status to 4 = highest status / Proximity: 1 = other countries, 2 = supranational, 3 = own country/language region.

*For all news factors there are no significant differences between the newspapers and magazines.

media (Adam, 2007; Bennett, 1990) is thus replicated by those civil society actors who are more closely connected with political power.

Concerning the news factor elite-nations, the first result is that, in general, all actor types mainly cite MIAs from influential countries: The most cited MIAs are from Germany (42%), followed by the US (20%); the actors from the UK (3%) already drop off considerably (overall, 43 different countries were coded). The comparison of the different actor types reveals that the status of the nation is most important for the less professionalized civil society actors.

There are no differences between the actor types concerning proximity. Proximity is important for all actor types, who all mainly cite actors from their own countries or from the same language region. German websites mainly cite German MIAs (69%), English websites cite mostly MIAs from English-speaking countries (59%), and the German newspapers mainly cite German MIAs (74%).

To sum up, our results confirm our hypotheses for the news factor elite-persons. But the news factor elite-nation is most important for single citizens/laypersons, and proximity is equally important for all actor-types regardless of how professionalized their communication is.

The second block of news factors consists of the content-based factors. To analyze differences between the content-based news factors, we conducted three separate ANOVAs with the news factors damage and aggression/conflict (operationalized as actor criticism and controversy) as dependent variables and the actor type as the grouping variable.

Table 3 shows that if consequences (news factor damage) are mentioned by journalists, they are mostly negative; civil society actors discuss the conse-

quences in a more neutral or positive manner. The pattern here is as expected: The more professionalized the actor's communication, the more relevant is the news factor damage for the presentation of the issue.

Table 3: Content-based news factors.

	Damage ¹	Aggression/ conflict I: Actor criticism ²	Position of the cited MIAs ³	Aggression/ conflict II: Controversy ⁴
Professional journalists*	.55 ^a	.16 ^{a,b,c}	.97 ^a	.02 ^{a,c}
Professional civil society actors	.44	.24 ^a	.96 ^b	.03 ^{b,d}
Semi-professional civil society actors	.41	.27 ^b	.84 ^c	.02 ^{c,d}
Single citizens/lay-persons	.32 ^a	.24 ^c	.68 ^{a,b,c}	.25 ^{a,b}

1. $F(1304/3) = 5.18, p < .001$, post-hoc-tests: Scheffé ($p < .05$).

2. $F(1304/3) = 15.05, p < .001$, post-hoc-tests: Scheffé ($p < .05$).

3. $F(1041/3) = 57.51, p < .001$, post-hoc-tests: Scheffé ($p < .05$).

4. $F(533/3) = 25.48, p < .001$, post-hoc-tests: Scheffé ($p < .05$).

a, b, c, d: Same letters indicate significant differences between respective subgroups $p < .05$.

Damage: 1 = negative consequences mentioned by the MIA, 0 = no negative consequences mentioned by the MIA; Actor criticism: 1 = addressee criticized by the MIA, 0 = no (criticized) addressee mentioned by the MIA; Position of the cited MIA: 0 = skeptical position; 1 = climate advocates; Controversy (coded on the document level): 1 = controversy, 0 = no controversy.

*For all news factors there are no significant differences between newspapers and magazines.

But when interpreting these results, we have to take the particularities of the climate change issue into account. Damage was measured as the mentioning of negative consequences. Therefore, the result showing that damage is more important for professional journalists and professional civil society actors (mainly the big NGOs) could be explained partly by the positions toward climate change. German newspapers and most of the NGOs mainly support the alarmist view concerning global warming and therefore mention the negative consequences of climate change. In contrast, there are several skeptics among the less professional actors (single citizens/laypersons). As they deny the occurrence of climate change or its possible impacts, they do not mention negative consequences very often. To illustrate these findings we included in Table 3 (third column) the position of the cited MIAs towards climate change – the lower the value the more skeptical is the position of the cited MIAs towards the

occurrence of climate change and its impacts in the coded documents. The skeptical views among the less professionalized actors also may explain why the news factor elite-nations (see above) is important for them: As they do not find many other skeptics in the German discourse about climate change they cite other, foreign actors (mainly from the US) to support their views.

Criticizing an actor (news factor aggression/conflict) seems to be specific to civil society actors' communication. In traditional offline media, we find significantly less criticism. Less professionalized actors are particularly critical of other actors. In contrast, journalists in traditional mass media mention other actors in a more neutral (or polite) way, as they follow professional guidelines such as objectivity or balanced reporting. The amount of actor criticism does not seem to be dependent on the position towards climate change (it has the same importance for all civil society actor types).

In contrast to actor criticism, controversy was measured on the document level. A document was considered controversial if MIAs with different positions on climate change (climate advocates versus skeptics) were cited within. We find the most controversy in the debates in the documents of laypersons and very little controversy in all other document types.

To sum up, the results concerning the news factor aggression/conflict contradict our earlier expectations: Criticizing an actor seems to be more important for the non-professional actor types whereas controversy is specific for single citizens/laypersons.

5 Discussion

Our results show that even non-established, less professionalized actors have (at least partly) adopted news factors in their communication. The reason might be twofold: First, if we consider news factors as general psychological mechanisms or audience-oriented routines (Eilders, 2006; Shoemaker, 1996), these factors should be relevant not only to journalists but also to other actors (Scherer et al., 2012) who seek to reach a wider audience. Thus, they serve as collective anthropologic relevance indicators, guiding the attention of all actor types independent of their degree of professionalization. Second, also (or especially) civil society actors seek to make their communication interesting for their target groups. As they pursue certain political goals and thereby follow their own agenda, it is important for them to reach, convince and mobilize as many people as possible. Furthermore they depend on the uptake by traditional media to achieve visibility and resonance beyond their own base (see, for example,

Bakardjieva, 2011). To facilitate this uptake, they must also ensure that their communication is interesting and relevant to journalists, which means that the content must accommodate the selection criteria of the traditional mass media to a certain degree.

Nevertheless, our study reveals differences in the usage of news factors among actor types. Contrary to our hypotheses, it is not the professional journalists and the more professionalized civil society actors that emphasize news factors more strongly. Only the news factor results ‘elite-persons’ and ‘damage’ show the expected pattern. For actors such as single citizens, who tend to have less organized and professionalized communication, these two factors have the lowest importance, whereas they are prominent for professional journalists. In contrast, the results for the factors ‘elite-nations’ and ‘aggression’ (actor criticism and controversy) are the opposite. Aggression is most important to the less professionalized actors, who criticize other actors and enable controversy. There are no differences between the actor types concerning proximity. From these results, the question emerges: Why do non-professionalized actors score higher in the news factors ‘elite-nations’, ‘aggression’ and ‘conflict’?

The greater importance for elite-nations can be explained by the fact that single-citizens cite many actors from the US. The US has the highest score in the coding of this news factor, thereby making the value even higher as it outweighs other countries, for example, Germany. Furthermore this reflects the position the actors have with regard to climate change: Among the single citizens we find the most skeptical views. Thus, when citing other actors in support of their own view, they mainly find them outside of Germany, especially in the US.

The greater importance of aggression and conflict for non-professional actors, on the other hand, could first be interpreted as a strategy with which they amplify their communication through the use of noticeable and dramatic news factors to increase its likelihood of being picked up by others. As they have no access to established actors whom they can cite, they may perceive controversy as their best option for gaining visibility in the discourse. This is exactly Bennett’s (1990) claim in the indexing hypothesis: Non-elite actors need spectacular, often negative, actions to penetrate the elite focus of the mass media. Second, the communication of civil-society actors which we find online provides more freedom than traditional mass media coverage. Non-established actors such as bloggers write their own opinions online concerning climate change and criticize actors with whom they do not agree. They perceive no need to investigate or check all the facts as do professional journalists. Furthermore, they are not bound by norms of objectivity or balanced reporting. Instead, they can freely articulate their opinions. This leads to greater emphasis on conflict

and criticism in their communication. Third, the greater importance of aggression and conflict for the less professionalized actors might be due to an actor's respective position on the issue of climate change. Indeed, it is in this actor category where we find the highest proportion of climate-skeptical voices that challenge the mainstream view reported by the media, which in Germany promote the scientific consensus. As opponents who either deny the existence or the severity of climate change and its consequences, climate-skeptical bloggers and others necessarily concentrate on the possibly controversial aspects of the issue.

Our research shows that news value theory applies to different actor types. Furthermore, our study also extends two core assumptions of news value theory. So far, the theory claims validity for all types of issues without taking specific issue characteristics into account. Our study clearly shows that characteristics of the climate change issue influence the news factors employed by different actors. It seems that the role and position of an actor and the specifics of an issue determine which news factors are employed. It could be argued that this is inconsequential in news value theory on a general issue level. However, at least for cross-country comparative research, this has sound consequences for selection processes. If, for example, events dealing with climate change are selected in Germany and the US (a country where we find elites divided on climate change), the role of the actor and the issue specifics might boost the news factor of conflict to a greater extent in the US than in Germany: a result we would so far take as an indicator of different reporting styles neglecting differences stemming from the issue. Second, a theoretical and methodological contribution of our study is that it extends news value research to the presentation of an issue. This links the theory to other concepts like second-level agenda-setting or framing.

Nevertheless, our study focuses on only one selected issue. Future research has to show if and how specific issue characteristics of other topics have also influenced the importance of certain news factors. Furthermore, we only measure 'conventional' news factors, developed in the context of traditional mass media, as our focus lay on the comparison of the communication of different actor types. But certainly there are news factors which are specific for online communication, which should be studied in future research.

In conclusion, this study reveals that news value theory is valid for different types of actors. Our data makes it clear that to further the understanding of news value research, we must disaggregate our analysis, going beyond studying news factors attached to the overall issue agenda. Instead, the usage of news factors must be recognized as strategic and role-bound, and thus vary-

ing according to the actors and issues analyzed. This is the perspective new studies should incorporate.

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Appendix A: Starting URLs (source seeds) used for the issue crawler

Climate-skeptical online actors:

- <http://www.eike-klima-energie.eu>
- <http://astrologieklassisch.wordpress.com/tag/klimawandel>
- <http://www.klima-ueberraschung.de>
- <http://www.klimaskeptiker.info>

Climate advocates:

- <http://www.greenpeace.de/themen/klima/nachrichten>
- http://www.pik-potsdam.de/aktuelles?set_language=de
- <http://www.wwf.de/themen-projekte/klima-energie>
- <http://klima-der-gerechtigkeit.boellblog.org>

Appendix B: Detailed reliability scores for the used variables

1. Agreement concerning the identification of the three most important actors (MIAs): 77 %
2. Actor-variables:

	Krippendorff's Alpha
Type of the MIA	.82
Scope of the MIA	.82
Country of the MIA	.90
Addressee	.94

3. Content-variables:

Occurrence of climate change	.69
Climate change seen as a problem	.75
Mentioned consequences of climate change	.71
Consequence mentioned as negative/positive*	.80

Basis: $N = 30$ commonly identified MIAs; each coder was compared separately to a master coding.

*Measured for correct identified consequences.