Framing Devices

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KEYWORDS
journalism, press content, framing

ENTRY IS CONNECTED TO
- causal attributions
- cultural motifs

BRIEF DESCRIPTION
Framing devices manifest themselves in the use of linguistic expressions, metaphors, patterns of argumentation, and keywords.

FIELD OF APPLICATION/THEORETICAL FOUNDATION
Framing devices can be used as a variable to analyse how texts contribute to frames through of their use of idioms, metaphors and key words. "Thus, the power of a frame can be as great as that of language itself." (Entman, 1993, p. 55)

REFERENCES/COMBINATION WITH OTHER METHODS OF DATA COLLECTION
The manual content analysis combined both quantitative and qualitative categories of a press article. In addition to the formal categories that can be ascribed to a press release, the frame elements were also coded in the analysis. Hereby, the framing devices refer to the more qualitative analysis of an article.
Example studies: Pentzold & Knorr (2024), Pentzold & Fischer (2017), and Van Gorp & Vercruysse (2012)

EXAMPLE STUDY ON VAN GORP & VERCRUYSSE, 2012
Authors: Baldwin Van Gorp and Tom Vercruysse
Research questions: What are the dominant frames used to represent dementia and what alternative frames could be proffered?
Object of analysis: An inductive frame analysis to examine the various ways in which the media define dementia both in news aggregates and in audio-visual material from the internet. The aim is to find indications of how and what conceptions people gain of dementia through news, audiovisual material, novels, and public health brochures. Hereby, the analysis followed an initial three-step coding procedure: First, the authors conducted the material inductively by coding key terms, with regular feedback moments to discuss potential divergences. This first phase ended when no new frames were detected, followed by an axial coding procedure of the whole material during phase two. Here, every new passage from the material had to be connected to at least one frame package so to verify the pre-defined frames from phase one. Third and lastly, frame packages were created by linking both *reasoning devices* and *framing devices* with a *cultural theme*.

Time frame of analysis and analyzed media type: The sample consisted of a representative selection of Belgian newspaper coverage from March 1, 2008 to July 1, 2010. In addition, books about dementia (n=20) were examined together with (audio-)visual material (n=14) based on the search results for "dementia" on www.imdb.com and www.youtube.com. Finally, public health brochures of dementia were part of the sample (n=15).

INFORMATION ABOUT VARIABLE
Variable/name definition: Frames/frame packages that define dementia
Scale: Nominal
Level of analysis: In the beginning by paragraph level, then the whole text as the frames began to emerge more clearly.
Sample operationalization: A frame / frame package consists of seven elements. These are the following: (1) cultural theme; (2) definition of the problem; (3) cause (why is it a problem?); (4) consequences; (5) moral values involved; (6) possible solutions/actions; (7) metaphors, choice of vocabulary.
Values: The qualitative analysis resulted in a total of twelve frame packages (six frames and six counter-frames). Each consists of a central cul-

tural theme, a definition of dementia, the causes and possible consequences, the moral evaluation and possible future scenarios of dementia. (1A. Dualism of body and mind vs. 1B. Unity of body and mind; 2; The invader; 3. The strange travelling companion; 4A. Faith in science vs. 4B. Natural ageing; 5. The fear of death and degeneration; 6. Carpe diem; 7A. Reversed roles vs. 7B. Each in turn; 8A. No quid pro quo vs. 8B. The Good Mother)

Reliability: First, both authors coded independently of each other and met to discuss differences. This resulted in tentative frames which were used for further qualitative research of the material. Then, the frames found were discussed with experts (in a workshop setting).

Codebook: Description of the sample (newspapers and audiovisual material) can be found at the end of the article (appendix of Van Gorp & Vercruysse, 2012).

INFORMATION ON PENTZOLD & KNORR, 2024

Authors: Christian Pentzold and Charlotte Knorr

Research questions: With which imaginaries do journalistic reports make sense of Big Data? (RQ1) How do these imaginaries evolve over time? (RQ2) To what extent are the imaginaries similar or different across countries? (RQ3)

Object of analysis [and analyzed media type]: The project Framing Big Data (DFG 2021-2024) analyzed the media-communicatively articulated frames on "Big Data" in online newspapers and magazines from three countries: South Africa, Germany, and the United States. No visual material was collected or examined. In total, material from 26 newspapers and magazines was analyzed. The time frame ranged from 2011 to 2020 (N=1,456). Articles had to contain the keywords "big data" or "dataf*" (e.g., datafication, datafied) in the headline, sub-headline and/or first paragraph (sampling criteria).

To analyze the frames manually, it was assumed that frames are organized according to three levels analysable in a press text. First, the *reasoning devices*, followed by – secondly – the *framing devices* (references, argumentation patterns, idioms, metaphors, topoi) and – thirdly – the *cultural motifs*. Coming from a socio-constructionist approach, a cultural motif is the anchor of an idea expressed in a text (Van Gorp, 2010, p. 7). It is connected to a social problem. To understand this connection, the problem definition, causal attribution, treat-

ment recommendation, and moral evaluation associated with the coded cultural motif were analyzed (cf., Van Gorp, 2010, p. 91-92; Entman, 1991, p. 52). These four elements are the *reasoning devices* of a frame. They are accompanied by the so-called *framing devices* which are stylistic devices, catchphrases, metaphors, and references. To that end, for the manual frame analysis on Big Data in the press aggregates, we developed codes for framing devices (1), reasoning devices (2), and cultural motifs (3). All three elements form part of a frame package (Van Gorp, 2007, 2010).

To build the frame packages, we followed procedures of both block modeling and cluster analysis. First, a block modeling was conducted – as introduced by White for structural analyses (White et al., 1976) – to prepare the data set for the cluster analysis. Then, the coded cultural motifs, the reasoning devices, and the framing devices that correlated strongly in the data set (a total of 9 variables and 34 codes) were chosen. With that, a hierarchical cluster analysis (Ward method) was conducted (Matthes & Kohring, 2008, p. 268). Binary variables were calculated for each of the codes of the nine variables.

Time frame of analysis: 2011, Jan 1 – 2020, Dec 31

Analyzed media type: Online press aggregates from newspapers and magazines in three countries: South Africa, Germany, and the United States. In sum, the coded press aggregates were sampled from 26 periodicals.

Codebook: Public_Codebook_FBD_fin.pdf

INFORMATION ABOUT THE VARIABLE

Variable name/definition: Framing Devices

Scale: Nominal

Level of analysis: Whereas the formal categories in the manual content analysis were coded at the level of a single news item, the individual frame elements were coded at the level of propositional units. A propositional unit (= analysis unit) can be connected to several codes that are assigned to either a framing device, a reasoning device or a cultural motif. Not all but some frame elements had to be present in the news item, and at least one reasoning device. Furthermore, at least one reasoning device should be tied to a framing device and/or cultural motif to prove that the propositional unit contains semantic relationships and not just elements of "raw text" (van Atteveldt, 2008, p. 5).

Sample operationalization: Framing devices en-

compass stylistic devices, catch-phrases, meta-phors, and references. What stylistic devices (idi-oms or topoi) are used to describe big data meta-phorically? Framing devices can be coded several times per propositional unit. A maximum of four framing devices can be coded.

Values: see Table 1.

Reliability: α = .93 [Krippendorff's alpha, inter-coder reliability. A total of seven reliability tests were conducted, five of them during the coding phase and two as part of two pretests. Five coders were involved in four tests, four coders were in-volved in three tests. All tests were conducted in the period July 2022 to December 2022].

Table 1. *Values used for the variable framing devices described in the context of Big Data (Pentzold & Knorr, 2024).*

Code	Framing Device	Description
1	Revolution/New age	new era, transformation, new mindset, game changing, data-driven culture, tech evangelism, data-ism; data as new science
2	Effectiveness/efficiency	in terms of how the data are (data quality; data as facts): accurate, exact, enlightening; intelligent machines as more-than-humans: their speed, capacity, permanence
3	new oil / gold mine / raw materials or natural goods	wash data like gold; data as new oil, data refining, the new oil of the internet, harvesting data, gold of the 21st century, spinning data gold
4	military armament with data for mass surveillance	Data as a weapon, killing for data, know-it all; Palantir struggle/war/surveillance: control, dominance, form of tyranny, manipulation, in the centre of electoral campaigns, data/psychological warfare, data targeting arsenal
5	Data as force for good	Data as danger and chance, "connectivity", no data like more data, the more-the better; profits, benefits everyone, new hope, driven by change
6	Data as natural resource	collecting as in agriculture or with metals (mining, harvesting), raw-processing, profit maximization, data are valuable, "Informationskapitalismus" pure data, Rohstoff
7	Overwhelming abundance of data	(e.g. mountain or water metaphors); all-availability, uncontrollability; data deluge, big-data wave, flood of data, wave of technology, ocean of data/algorithms
8	data-based representations	data shadows, data profiles, data footprint, digital shadow/twin simulation, distorted reflection of own identity
9	Data smog	data pollution, data exhaust
10	"Hot shit"	Big Data as trend/hype
-98- / -99	Something else/ nothing detected	

Note: A maximum of four framing devices can be coded.

REFERENCES

Entman, R. M. (1991). Framing U.S. Coverage of International News: Contrasts in Narratives of the KAL and Iran Air Incidents: Symposium. Journal of Communication, 41(4), 6–27.

Jasanoff, S. (2015). Future Imperfect. In S. Jasanoff & S. Kim (Eds.), Dreamscapes of Modernity (pp. 1–33). Chicago: University of Chicago Press.

Matthes, J., & Kohring, M. (2008). The Content Analysis of Media Frames: Toward Improving Reliability and Validity. Journal of Communication, 58(2), 258–279. https://doi.org/10.1111/j.1460-2466.2008.00384.x

Pentzold, C., & Fischer, C. (2017). Framing Big Data: The discursive construction of a radio cell query in Germany. Big Data & Society, July-December, 1–11. https://doi.org/10.1177/2053951717745897

Pentzold, C. & Knorr, C. (2024). Making Sense of "Big Data": Ten Years of Discourse Around Datafication (ICA 2024, 74th Conference, Gold Coast, Australia).

Pentzold, C., & Knorr, C. (2021-2024). Framing Big Data (DFG). Leipzig University. https://www.sozphil.uni-leipzig.de/en/institut-fuer-kommunikations-und-medienwissenschaft/professuren/chair-of-media-and-communication/forschungs-und-praxisprojekte/framing-big-data

van Atteveldt, W. (2008). Semantic network analysis: Techniques for extracting, representing and querying media content. SIKS dissertation series: no. 2008-30. BookSurge.

Van Gorp, B. (2007). The Constructionist Approach to Framing: Bringing Culture Back In. Communication Research, 57, 60–78.

Van Gorp, B. (2010). Strategies to Take Subjectivity Out of Framing Analysis. In P. D´Angelo & J. A. Kuypers (Eds.), Communication Series. Doing News Framing Analysis: Empirical and Theoretical Perspectives (pp. 84–109). New York: Routledge.

Van Gorp, B., & Vercruysse, T. (2012). Frames and counter-frames giving meaning to dementia: A framing analysis of media content. Social Science & Medicine (1982), 74(8), 1274–1281. https://doi.org/10.1016/j.socscimed.2011.12.045

White, H. C., Boorman, S. A., & Breiger, R. L. (1976). Social Structure from Multiple Networks. I. Blockmodels of Roles and Positions. American Journal of Sociology, 81(4), 730–780. http://www.jstor.org/stable/2777596