

Effects of Differently Framed News Photographs on Readers' Thoughts, Recall, and Information Seeking Behavior

A Visual Framing Effects Study on the Example of the European Refugee Crisis

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1. Introduction

More than one million migrants and refugees, mostly from Syria, Afghanistan, and Iraq, arrived in Europe in 2015, making the so-called refugee crisis one of the most dominant topics in media coverage (“Ranking”, 2016), and generating very “powerful [news] images” (Probst, 2016). Framing effects of news photographs are still understudied in Communication Science, which seems rather surprising considering that humans can encode pictures more easily and quickly, and remember them better and longer than textual messages (as cited in Geise & Baden, 2015; Messaris & Abraham, 2001). Previous research has found that frames used within a news article can have an influence on how the information in this article (Valkenburg, Semetko, & de Vreese, 1999) as well as the photograph accompanying the article (van Gorp, 2007) are processed. However, little is known about how a different framing of the photograph itself can influence the processing of the accompanying article concerning thoughts, recall, and information seeking behavior. This study aimed to fill this gap by posing the following research question:

Does exposure to differently framed news photographs of the European Refugee Crisis influence readers' thoughts, recall and information seeking behavior about the European Refugee Crisis?

The study can be located within the tradition of framing research (Entman, 1993) and focusses on the effects of issue-specific frames used within the visual media coverage of the European Refugee Crisis on readers' information processing in terms of thoughts and recall as well as on information seeking behavior (de Vreese, 2005). Based on previous research on textual framing effects (e.g. Valkenburg, Semetko, & de Vreese, 1999, Haydarov & Gordon, 2015), I pose the following three hypotheses:

Participants exposed to news photographs about the European Refugee Crisis framed in terms of a specific frame

- express more frame-specific thoughts (*H1*),
- recall more frame-specific information from subsequent news articles (*H2*),

- and are more likely to seek further frame-specific information (*H3*) than participants within the other experimental conditions or the control group.

2. Pre-Study

No study to date has identified issue-specific frames used in news photographs about the latest European Refugee Crisis. For this reason, it was necessary to conduct a pre-study to identify relevant frames, which then could be implemented in this project's main study.

2.1 Method

26 photographs published in the *Süddeutsche Zeitung* (SZ) and the *Frankfurter Allgemeine Zeitung* (FAZ) were analyzed by using a coding scheme, which took the qualitative and inductive nature of this pre-study into account. The selection of the photos was accomplished based on five criteria (Appendix A).

2.2 Results

Altogether the following four frames could be identified. The *Political Decision Makers* frame consists of photographs which predominantly show European politicians, who are crucial figures in the decision-making processes concerning immigration policies. Photographs of the *Victim* frame depict the difficulties refugees face on their journey from their home country to Europe. The *Security* frame is represented by the depiction of big wire or iron fences or barriers, and/or the portrayal of security guards. The *Freedom* frame tells the story of refugees looking forward to starting a more peaceful life in a new environment.

3. Main Study

3.1 Method

An online experiment using a 1 x 5 between-subjects design was conducted. A total of 177 participants (66% female, $M_{age}=28$ years), mostly from Germany and Austria, were recruited through snowball sampling. They were randomly assigned to one of the four experimental conditions or to the control condition. First, each of the experimental conditions got to see three photographs of the same frame. Second, the same four article extracts with each extract representing one of the four frames were presented to all conditions. Subjects in the control condition were only shown the article extracts without photographs. Photographs and article extracts were arranged in a randomized order for all conditions. Directly after stimulus exposure, participants were, first, asked to report their thoughts and, second, to answer several items designed to measure recall. Additionally, several confounding variables (e.g. reading attention, media use, contact to refugees) as well as sociodemographic information were collected. Participants' thought listing (Cacioppo, von

Hippel, & Ernst, 1997). was coded using a comprehensive codebook, which was divided into the two sections facts/opinions and emotions. An inter-coder reliability test between two coders gained satisfying Krippendorff's alpha values for all categories.

Thoughts

An ANOVA shows that the condition to which the participants were assigned had a significant effect on the relative number of facts/opinions they expressed about security issues ($F(4,153) = 4.02; p=.011$). Comparing the individual groups using a Dunnett-T3 post hoc test, I find that participants exposed to the security frame express significantly more facts/opinions about security issues than participants exposed to the victim or freedom frame. For the expression of emotions, a binary logistic regression reveals that the victim frame has a positive statistically significant influence on the expression of sympathy ($b=.970, SE=.413, Wald=5.520, p=.019$), which remains significant when controlling for all possible confounding variables ($b=1.165, SE=.464, Wald=6.305, p=.012$). Thus, H1 can be supported for the security frame and the victim frame. While the security frame has an impact on the expression of frame related facts/opinions, the victim frame influences the expression of frame related emotions. The political decision makers frame as well as the freedom frame were not found to have a significant impact on thoughts.

Recall

For recall, a binary logistic regression shows that the security frame has a positive statistically significant effect on the recall of correct information of the article extract framed in terms of security ($b=1.039, SE=.396, Wald=6.870, p=.009$), which remains significant when controlling for relevant confounding variables such as reading attention ($b=1.076, SE=.451, Wald=5.694, p=.017$). Hence, H2 can be supported for the security frame, but not for any of the three other frames.

Information Seeking Behavior

H3 had to be rejected because none of the frames showing a significant influence on information seeking behavior.

4. Discussion

This study could show that a specific frame used in photographs can influence readers' processing of a subsequent article concerning thoughts and recall. However, not every frame used in this study was able to induce such an effect. Only the security frame and the victim frame had a significant effect on participants' thoughts and recall, which indicate that these two are very effective frames in influencing people's information processing. Future research should focus on the effects of these two frames. It would be important to not only

measure effects on information processing and information seeking behavior, but also on attitudes and actual behavior. Furthermore, future studies should try to employ a more diverse sample in order to examine the additional influence of quasi-experimental factors, such as age or education. For the research field of content analyses, a comprehensive, quantitative study would be interesting. Ideally, it should include different types of news outlets from different European countries within different time frames.

5. References

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6. Appendix

Appendix A: Selection Criteria (Pre-Study)

1) The photo accompanied an article, which was selected based on the search term “Flüchtling\$ OR Asyl\$ OR Immigrant\$ OR Einwanderer\$” (“refugee\$ OR asylum\$ OR immigrant\$”)

2) In order to retrieve those articles which primarily deal with the topics included in the search term, it was determined that the expressions of the search phrase have to be mentioned in the article’s title or subtitle.

3) The article was published between the 1st of September 2015 and the 15th of April, 2016. While the end date constitutes the beginning of this analysis, the start date was chosen based on the number of asylum applications in Germany, which in September 2015 passed the mark of more than 40,000 a month for the first time and has not become less since (“Aktuelle Zahlen zu Asyl”, 2016).

4) The article was published on the front page and above the fold of the respective newspaper, and includes a photo. This strategy is typical for visual framing studies, because front page pictures above the fold are considered more dominant than pictures within the newspaper or below the fold (as cited in Brantner, Geise, & Lobinger, 2012, p.21) and are, thus, better suited in order to catch the reader’s attention. Catching the reader’s attention or making issues more salient is one important part of framing (Entman, 1993).

5) Very small pictures, charts or diagrams, as well as photographs which focused on a different aspect of the corresponding article were excluded from the study.

Appendix B: Stimulus Material (Main Study) Examples for Photographs

Victim Frame



SZ, 01.03.2016

Security Frame



FAZ, 12.11.2015

Freedom Frame



FAZ, 14.09.2015

Political Decision Makers Frame



SZ, 08.03.2016

Article Extract Example (Victim Frame)

Es sind fast unwirklich anmutende Bilder, die sich in Europa derzeit zeigen: Ob auf der griechischen Insel Lesbos, auf einem Feld in Serbien in der Nähe der kroatischen Grenze oder an der deutsch-österreichischen Grenze zwischen Braunau und Simbach am Inn: An allen Stationen der sogenannten Balkanroute versuchen derzeit Menschen, sich mit gold und silbern schillernden Thermaldecken vor den herbstlichen Temperaturen zu schützen. Die Menschen fliehen vor Krieg und Elend, vor

allem aus Syrien und Afghanistan. Mit dem Herbst werden die Bedingungen immer härter, nachts fallen die Temperaturen oft fast bis auf den Gefrierpunkt. Ungeschützt warteten am Wochenende Flüchtlinge auf der Innbrücke stundenlang auf ihre Einreise von Österreich nach Deutschland. Der Strom der Schutzsuchenden reißt nicht ab. Oft müssen sie lange Strecken zu Fuß zurücklegen sowie den wohl gefährlichsten Teil ihrer Flucht - den Weg übers Mittelmeer.

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