

EFFECTS OF VISUAL FRAMING ON EMOTIONAL RESPONSES AND EVALUATIONS OF NEWS STORIES ABOUT THE GAZA CONFLICT 2009

By Cornelia Brantner, Katharina Lobinger, and Irmgard Wetzstein

The experiment investigates visual framing effects of news stories on readers' (1) emotional response, (2) evaluation of communicative quality, (3) journalistic credibility and (4) objectivity, and (5) perception of actor representation. Three versions of a news report about the Gaza conflict were used. While the text remained the same, different images were added representing visual human-interest framing, visual political framing, and no visual framing. Visual human-interest framing elicited stronger emotional responses, higher values concerning the communicative quality, and had an impact on the perceived actor representation. No differences in objectivity and credibility were found among the three stimuli.



In modern media communication, images and texts are rarely presented independently. Rather, they appear in multimodal messages in which various semiotic modes (i.e., image, text, sound) interact.¹ Duncum emphasizes that “the visual was never exclusively visual,”² and the same applies to text. Nowadays, image and text are the most ubiquitous modes in modern media, and their highly complex interactions have already been examined in a number of studies.³ Understanding image-text interactions in the journalistic coverage of conflict and war is especially important since, as Lester noted, it “is no light matter to use words and images together in mass communication, for their combination is powerful; they demand respect and responsible use.”⁴

This paper focuses on visual framing effects, presuming that image selection influences evaluation of the journalistic story. First and foremost, images are used to gain readers' attention,⁵ as several eye-tracking studies⁶ have shown. Furthermore, images are perceived very quickly, and they are able to communicate and activate emotions effectively.⁷ The presumption here is that ideas and emotions that are activated by news images will affect how the entire media message is evaluated. Unlike most other studies on framing effects, the present study does

Cornelia Brantner is a university assistant (post-doctorate) at the Department of Communication, University of Vienna, Austria. Katharina Lobinger is postdoctoral fellow at the University of Bremen, Centre for Media, Communication and Information Research (ZeMKI). Irmgard Wetzstein is researcher (post-doctorate) in the area of Society and Socio-Economics at the University of Applied Sciences Vorarlberg, Austria.

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not focus on issue perception, but investigates the effects of visual frames on evaluations regarding the communicative quality and objectivity of the article, as well as emotional responses to the article.

The starting point for the present study was a quantitative content analysis of the news coverage of the Gaza conflict ("Operation Cast Lead") between December 2008 and January 2009 in four quality weekly newsmagazines and newspapers published in Germany, Austria, and Great Britain.⁸ Results showed that representations of the Israelis and of the Palestinians differed considerably in the visual and the verbal texts.⁹ In a nutshell, in the visual message, contrasting representational strategies between images that aimed to generate empathy for the Palestinians and pictures that emphasized the institutional power and statesmanship of the Israelis were detected. The present experimental study was designed to measure the effects of these visual frames with realistic visual and verbal stimuli stemming from the actual coverage of the conflict.

Framing and Framing Effects

In recent decades, frames and framing concepts have received increased attention in media research.¹⁰ Many authors refer to Goffman as the originator of the framing approach and, accordingly, consider frames as "schemata of interpretation," which enable individuals "to locate, perceive, identify, and label"¹¹ information. Frames can be described as interpretation patterns that serve to classify information for handling it efficiently.¹² Most scholars emphasize that frames "are *organizing principles* that are socially *shared* and *persistent* over time, that work *symbolically* to meaningfully *structure* the social world."¹³ Briefly, in communication research, framing refers to the observation that different media report on the same topic in different ways, emphasizing or neglecting particular evaluations or particular parts of the issue.¹⁴ Even though different framing approaches exist, they agree that mass media actively set the frames of reference the recipients then use for interpreting and discussing topics: Journalists "give the story a 'spin,' taking into account their organizational and modality constraints, professional judgments, and certain judgments about the audience."¹⁵ Simultaneously, preexisting meaning structures or schemata influence the recipients' information processing and interpretation.¹⁶ The recipients' construction of reality relies on "a version of reality built from personal experience, interaction with peers, and interpreted selections from the mass media."¹⁷ To summarize, recipients create their view of the world on the basis of personal experiences, conversations, and the interpretations of the media.

The different approaches of media frame analysis can generally be classified into three research areas.¹⁸ First, the communicator perspective deals either with the frames of journalists and their influence on news production or with the news coverage and its media frames.¹⁹ The public discourse and social movements approach analyzes media as conveyors of frames of different actors.²⁰ In this context, frames are defined as ideas "through which political debate unfolds, and political alignment and collective action takes place."²¹ The media framing effect approach focuses on the impact of framing on the recipients and their cognitive structures

or schemata which influence information processing and interpretation.²² On the one hand, media frames have an impact on the recipients' cognitions by activating, establishing, and transforming schemata. On the other hand, media framing can affect the individual's judgments or evaluations, attitudes, preferences, points of view, emotions, decisions, interpretations, and perceptions of facts and circumstances, as has been demonstrated by various experimental studies.²³

The connection between framing and agenda setting and its continuation, priming, is the subject of a lively scholarly debate regarding its conceptualization.²⁴ According to Price, Tewksbury, and Powers, "salient attributes of a message activate certain ideas"²⁵ during message processing. These schemata are used for evaluations during and immediately after the reception of media messages. The authors call this the applicability effect, which explains that salient attributes of messages serve as cues. Subsequently, those ideas or schemata are activated whose salient attributes most likely correspond with the cues in the message (fitting).²⁶ "But once activated, ideas and feelings retain some residual activation potential, making them more likely to be activated and used in making subsequent evaluations."²⁷ This is called the accessibility effect or priming effect. Media frames serve as primes for the subsequent evaluation. Schemata activated by media frames often compete with chronically accessible schemata.²⁸ Schemata primed immediately prevail, provided the evaluation follows right after reception. By contrast, if there is a longer time period between reception and evaluation, chronically accessible schemata will dominate. They arise if the media report a certain topic repeatedly and prominently in the same way.²⁹ D'Angelo and Lombard, as well as Tewksbury and Scheufele, state that even though applicability effects are in the purview of framing research and accessibility effects are within the purview of agenda-setting and priming research, it is not possible to cleanly separate these processes, as they go hand-in-hand in information processing.³⁰ Thus, the conception of framing as either applicability or accessibility effect "is to some extent one of emphasis and nomenclature. Some part of the question boils down to how the field wants to name and classify framing effects."³¹

According to Coleman³² and Trivundza,³³ Entman's often-cited notion of framing can also be applied to images. Visual framing then refers to the selection of some aspects of the perceived reality and their accentuation "*in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation*"³⁴ by visual stimuli. Studies on visual framing in the communicator perspective that analyze news frames or journalistic frames are rare compared to studies on textual/verbal framing, and there is still a need to integrate verbal *and* visual texts in research projects.³⁵ However, in recent years, several studies applying framing theory to news images have been published.³⁶ For example, Scheufele argues that images are more salient than verbal texts because they are more able to generate

Visual Framing and the Importance of Photos in News Reporting

the recipients' attention as they, among other things, connote witnessing and increase emotional participation. This argument reinforces the implication that cognitive schemata might be easier activated by images than by verbal texts. Thus, fitting is achieved faster if visual information is introduced.³⁷ Gibson and Zillmann argue that accessibility theory may help to explain specific effects of image-text combinations on the issue perception of topics. "If, at the times when judgments are to be made, images or image-text integrations avail themselves from memory more readily than text alone, images will exert a disproportional influence on judgment."³⁸ This particular power of images can also be explained by the well-documented "picture-superiority effect"³⁹ of information acquisition. Moreover, due to the "true-to-life" quality of images, readers are expected to be less aware of visual framing than of verbal framing,⁴⁰ which hinders the recognition of tendencies in visual news coverage.

News Photographs Are More than Mere Decoration. Various studies have shown that images evoke a number of emotional and attitudinal effects and are able to influence public opinion formation, the comprehension of the news, and the evaluation of issues.⁴¹ Wanta and Roark⁴² hypothesize that photographs can have an affective impact on the readers and may thus influence recipients' judgments of the reported media contents. Photos put the viewer into a certain mood, which then influences how the news text is understood. Consequently, a negative image can result in a more negative evaluation of an article. In this sense, news photographs "color the perceived impact of news stories."⁴³ Zillmann, Gibson, and Sargent argue that even mainly descriptive images are more than mere decoration and influence the judgment of the reported topics.⁴⁴ This implies that the careless use of images may lead to misguided perceptions of the reported topics.

Photographs Guide Attention. Further empirical analyses underscore the importance of visual elements in news reporting by identifying photos as the most common entry points into newspaper pages.⁴⁵ Typically, readers scan images and headlines to decide whether articles are worth being read. An eye-tracking study by Bucher and Schumacher found that during the first thirteen seconds, recipients glance alternately at the image on the front page and at the headline of a newspaper. The image works as the first stimulus, and the headline is read as a kind of caption.⁴⁶ Images attract the readers' attention because they are perceived quickly and easily. Barnhurst even argues that recipients tend to look at messages rather than read them.⁴⁷ From these studies the conclusion can be drawn that images serve as entrance stimuli into news stories and increase the probability that a news story gets further attention. Additionally, Wanta and Roark highlight the fact that pictures provide typographical relief and are used to break up the grayness of journalistic texts.⁴⁸ This indicates that the presence of visuals that loosen up the page makes reading news texts more enjoyable and interesting, thus increasing the article's communicative quality.

Photographs Elicit Emotions. An additional feature of images is their emotional surplus value, as they can transmit emotions effectively.

Emotions thereby either stem from the aesthetic visual quality or from the image contents.⁴⁹ Particularly, human emotions are conveyed more directly and more authentically by photos than text. For this reason, Bernhard and Scharf maintain that images offer the opportunity to empathize with the visually represented people and thus enable the creation of para-social interactions.⁵⁰ Konstantinidou argues that photos of victims and visual human-interest framing in general lead to an emotional connection, evoke empathy with distant suffering, and let the recipients become eyewitnesses of a distant war.⁵¹ However, several authors criticize the lack of empirical findings about the persuasive power of images and their effects on issue perception, particularly concerning the effects of news photos showing war victims.⁵² The expectation is "that reactions to featured photographs shift the primarily text-based perceptions and evaluations of issues in the direction suggested by the photographs."⁵³ The following section synthesizes the results of studies examining visual framing effects, although not all of them explicitly refer to the term "visual framing."

Experiments on Visual Framing Effects. In their study on the effects of images depicting casualties of war, Pfau et al. found that images combined with captions generate stronger negative emotional responses, as well as reduced support for U.S. military presence in Iraq, than those articles containing verbal text only or those with image-text relations.⁵⁴ Gibson and Zillmann observed that the risk of getting a disease was assessed as higher when the verbal text was accompanied by images of ticks, which were identified as disease carriers in the verbal text. Likewise, Gibson and Zillmann showed that pictures which represented a particular ethnic group yielded an overestimation of risk for that particular group, even though the latter was not mentioned in the text.⁵⁵ In a similar experimental setting, Zillmann, Gibson, and Sargent observed different issue perceptions due to the modification of visual stimuli. If a balanced verbal text on the issue of the growing gap between rich and poor farmers was accompanied by images which only supported one side of the story, the assessments of the respondents were distorted in the direction favored by the pictures. The authors also demonstrated that the risk of accidents was assessed as higher when balanced verbal texts featured images of accidents.⁵⁶ In representative field experiments, Petersen examined the effects of potentially emotionalizing visual elements. The stimuli were images with gradually different emotionalizing scenes accompanied by a short verbal news text about a major earthquake. The different stimuli were expected to lead to different levels of emotional involvement. Contrary to previous empirical findings, no significant differences between the groups were detected. The picture of a crying child holding a woman's hand or of earthquake victims in front of destroyed buildings did not yield stronger emotional responses than images showing the woman without the child or images of destroyed buildings alone.⁵⁷ A possible explanation for these results is that the stimuli were too similar, as they all could be assigned to the human-interest frame and hence did not produce different evaluations.

Objective and Hypotheses

Similar to the visual framing approaches mentioned above, the present research aims to investigate whether different images lead to different evaluations. But, instead of artificial experimental stimuli, images that represent the dominant visual strategies found in the news coverage of the war in Gaza were used. Content analysis had found that pictures of Palestinians mostly depict individual civilians and victims. These depictions can be classified as representing a human-interest frame.⁵⁸ In accordance with Entman,⁵⁹ this frame is likely to evoke empathy by humanizing victims. In contrast, most images that depict Israelis belong to the political frame and emphasize institutional power and statesmanship.⁶⁰ The interesting part is the extent to which this particular use of visual frames influences the audience's judgments of textual journalistic messages, and which differences concerning the evaluation of the article can be detected among articles with visual human-interest framing, visually politically framed articles, and articles without visual framing. In this regard, the following assumptions are made:

Following the assumptions of Konstantinidou⁶¹ and Entman,⁶² the visual human-interest frame is expected to lead to higher values regarding the emotional evaluations of the article than the visual political frame and the text-alone condition (H1). Another assumption is that the article versions containing visual elements will, in general, yield higher values concerning the communicative quality⁶³ of the article (H2). Moreover, following Graber's assumption that "seeing is [...] believing,"⁶⁴ we hypothesize that images reinforce the credibility of the article, and that the article versions containing visual stimuli will be considered more credible compared to the text-alone stimulus (H3). Finally, as readers are usually less aware of visual framing,⁶⁵ we do not expect differences regarding the evaluations of the journalistic objectivity among the stimuli (H4).

Method

Experimental Material. To test these hypotheses, an experimental research design was developed. The verbal stimulus was chosen in two steps: First, two out of ten balanced articles from the research material of the content analysis about the Gaza conflict⁶⁶ were chosen. These two articles were carefully selected due to their high journalistic quality, guaranteeing balance, and the plurality of perspectives in the verbal text. Both articles were published in German weekly newsmagazines that are clearly positioned as quality journalistic media. Second, a group of thirty-six people, consisting of researchers, journalists, and readers of the media's target group, was asked to evaluate the articles' journalistic neutrality, balance, view, and comprehensibility. The article with higher evaluations was then selected and shortened slightly. Additionally, three visual stimulus conditions were generated based on findings of the content analysis. In Stimulus 1, the verbal text was accompanied by two photographs representing the visual political frame typical for the representation of the Israeli conflict party (Photo 1: Tzipi Livni, then foreign minister of Israel, speaking at a press conference; Photo 2: Ehud Olmert, then prime minister of Israel). Stimulus 2 contained two photos of Palestinian victims

(Photo 1: a wounded Palestinian boy in the hospital with his mother; Photo 2: mourning people in North Gaza around the dead body of a child covered by the Palestinian flag) and, therefore, represented the visual human-interest frame. In Stimulus 3, the article contained no photographs at all and, thus, no visual framing. However, as the article was rather long (three magazine pages), an information graphic was added to all three stimuli. The information graphic was not considered a visual frame since it merely provided geographical information about Gaza. The chosen article and the selected visual elements with their captions had all been used within the news coverage of the Gaza conflict at the beginning of 2009. The aim of selecting a real published journalistic article and of choosing real visual elements according to the results of the content analysis was to create natural and realistic stimuli and to enable a comparison with the content analysis.

Respondents. Two-hundred-forty undergraduate students at the Department of Communication at the University of Vienna participated in the experiment. Each student was asked to read one of the three article versions and to complete a standardized questionnaire in which questions relating to the article and its journalistic quality were posed. The three article versions were randomly assigned, whereby age and gender distribution did not differ in the three experimental tasks. Thus, the randomization can be considered successful.⁶⁷ Because the participants' level of knowledge about the Gaza conflict could be an additional intervening variable, the participants were asked to estimate how much they knew about the conflict and if they had followed the coverage. Out of all 240 respondents, only 30 declared to have an intense interest in the issue, and they were almost evenly distributed across the three article versions.

Measurement. For the emotional evaluation of the article we used a seven-point scaled semantic differential with two opposing adjective pairs: distanced vs. empathizing and calming vs. disturbing. As these items did not form a satisfactory index (Cronbach's $\alpha = .35$), each item was used separately in the analysis.

The communicative quality⁶⁸ of the article was measured with seven, seven-point scaled semantic differentials:⁶⁹ uninteresting vs. interesting; boring vs. exciting; not vivid vs. vivid; incomprehensible vs. comprehensible; perfunctory vs. profound; unsubstantial vs. informing; and not credible vs. credible. Reliability testing excluded the item incomprehensible vs. comprehensible (Cronbach's $\alpha = .73$). An index of the remaining six items was computed, ranging from 1 (poor communicative quality) to 7 (high communicative quality).

The index for the assessment of objectivity included four, seven-point scaled semantic differentials (Cronbach's $\alpha = .80$). One item tapped estimation of the overall objectivity (subjective vs. objective). Other items measured impartiality (not neutral vs. neutral and imbalanced vs. balanced),⁷⁰ as well as the fact-orientation criterion (opinion-oriented vs. fact-oriented).

Furthermore, the influence of the three different experimental conditions on the perceived intensity of actor representation was inves-

TABLE 1
Evaluation of Emotional Dimensions

	(S1) text + visual political frame (n = 80)	(S2) text + visual human- interest frame (n = 80)	(S3) text alone (no visual framing) (n = 80)
Calming - Disturbing	5.10 ^a (1.21)	5.46 ^{a, b} (1.04)	5.12 ^b (1.06)
Distanced - Empathizing	4.65 (1.39)	5.05 (1.23)	4.70 (1.22)

Note: Cell entries are means; entries in parentheses are standard deviations. Means with matching superscripts are significantly different, $p < .05$. Scale: 1 (calming) – 7 (disturbing); 1 (distanced) – 7 (empathizing)

tigated using a seven-point scale (from “not at all represented” to “strongly represented” for the actors “Palestinian civilians,” “Israeli civilians,” “Palestinian politicians/officials,” and “Israeli politicians/officials”).

Results

Altogether, the participants who were exposed to Stimulus 2 (visual human-interest framing of the Palestinian conflict party) made stronger judgments in most of the inquired dimensions than the participants in the other groups. The differences between Stimulus 1 (visual political framing of the Israeli conflict party) and Stimulus 3 (no visual framing) were generally low and non-significant.

Emotional Evaluations. H1 posited that the visual human-interest frame leads to higher values regarding the emotional evaluations of the article (empathizing, disturbing) than visual political framing and the text-alone condition. As Table 1 shows, differences in the mean values were observed. Stimulus 2 (visual human-interest framing) elicited greater emotional effects than Stimulus 1 (visual political framing) and Stimulus 3 (no visual framing). Stimulus 2 was evaluated as significantly more disturbing than Stimulus 1, $t(158) = 2.03, p = .04$, and Stimulus 3, $t(158) = 2.03, p = .04$. There was little difference between Stimulus 1 and Stimulus 3, $t(158) = 0.14, p = .89$. The visual human-interest frame also resulted in a higher mean score with respect to “distanced vs. empathizing” and was thus evaluated as more empathizing than both other experimental conditions, but the difference was not statistically significant. Thus, the results partially support H1: Visual human-interest framing elicited significantly greater effects than the text alone and the visual political framing regarding the emotional dimension “disturbing,” whereas the detected higher effects on the “empathizing” dimension were not significant.

H2 and H3 postulated differences between the two stimuli with visual framing and the text-alone condition. H2 assumed that the article versions containing visual stimuli would yield higher values concerning

TABLE 2
Evaluation of Communicative Quality

(S1+ S2) visually framed texts (<i>n</i> = 160)	(S3) text alone (no visually frame) (<i>n</i> = 78)	(S1) visual political frame (<i>n</i> = 80)	(S2) visual human-interest frame (<i>n</i> = 80)
5.22 ^a	4.94 ^{a, b, c}	5.11 ^b	5.33 ^{b, c}
(.82)	(.92)	(.82)	(.81)

Note: Cell entries are means; entries in parentheses are standard deviations. Means with matching superscripts are significantly different, $p < .05$, except for c, in which $p < .01$. Index scale: 1 (poor communicative quality) – 7 (high communicative quality)

the communicative quality. Table 2 shows that the results support H2. The articles with photographs were credited with a higher communicative quality than the article without visuals, $t(236) = 2.41, p = .017$. Overall, the significant difference can be explained by the high mean value of Stimulus 2 (human-interest frame). Significant differences were detected in the evaluation of the stimulus with images of Palestinian victims and the no-photo stimulus, $t(156) = 2.84, p = .005$. The article with visual human-interest framing also elicited a higher communicative quality than the article with visual political framing, but this difference was not significant, $t(158) = 1.67, p = .098$. Likewise, the difference between Stimulus 1 (political frame) and the text-alone condition was not significant, $t(156) = 1.28, p = .20$. Thus, evaluation of having more communicative quality depended more on the picture type than on the presence/absence of visual stimuli.

H3 posited that article versions with visual stimuli would be considered more credible compared to the text-alone stimulus. For this purpose we used the single item “not credible vs. credible.” Given the assertion that “seeing is [...] believing,”⁷¹ the assumption is that images reinforce the credibility of a news story. However, H3 is rejected because the results show that the different stimuli exerted little influence with respect to credibility. Even though the mean values indicate higher credibility for the visually framed articles ($M = 5.55, sd = 1.10$) than of the article without visuals ($M = 5.39, sd = 1.16$), these differences were not statistically significant, $t(238) = 1.06, p = .29$.

Finally, because several authors argue that readers are usually less aware of visual framing than of verbal framing,⁷² H4 posited that the evaluation of journalistic objectivity is not influenced by the visual frames. As expected, visual framing exerted no influence on the inquired criteria of journalistic objectivity. No significant differences among the three groups were observed. To assess the hypothesis, an ANOVA for the objectivity index was computed, $F(2, 239) = .21, p = .81$. The three experimental groups evaluated the journalistic objectivity nearly congruently: visual political frame $M = 4.33 (sd = 1.09)$; visual

TABLE 3
Representation of Actors

Actors	(S1) text + visual political frame (n = 80)	(S2) text + visual human- interest frame (n = 79)	(S3) text alone (no visual framing) (n = 79)
Palestinian Civilians	4.54 ^a (1.54)	5.05 ^{a, b} (1.53)	4.58 ^b (1.46)
Israeli Political Actors	5.25 (1.18)	5.25 (1.17)	5.23 (1.07)

Note: Cell entries are means; entries in parentheses are standard deviations. Means with matching superscripts are significantly different, $p < .05$. Scale: 1 (not at all represented) – 7 (strongly represented)

human-interest frame $M = 4.37$ ($sd = 1.10$); and text-only $M = 4.44$ ($sd = 1.12$), which supports **H4**.

In addition to the article evaluations, the influence of the three different experimental conditions on the perceived intensity of actor representation was investigated (see Table 3). As expected, the group which had read the article with visual human-interest framing (Stimulus 2) significantly differed from the two other groups regarding the perceived representation of Palestinian civilians, $F(2, 237) = 2.80$, $p = .063$. LSD *post hoc* tests showed significant differences between visual human-interest framing and visual political framing ($p = .03$) and between visual human interest framing and the stimulus without visuals ($p = .05$).

Thus, readers exposed to the visual human-interest frame found Palestinian civilians to be more strongly represented. However, the converse argument that visual political framing reinforces the perceived representation of the Israeli political actors is not applicable. The question regarding how strongly Israeli politicians were represented in the article resulted in almost identical mean values in all three groups.⁷³

Discussion

In conclusion, visual human-interest framing elicited stronger emotional effects than visual political framing and the text-alone condition. Interestingly, there were no significant differences between the visual political framing and the text-alone article. This underscores the argument that even though pictures can communicate emotions effectively, not all pictures automatically evoke emotional effects. Obviously, the pictures of politicians used in the present study did not hold any emotional power. Noteworthy is that the evaluations of an article do not depend only on the question *if or whether* images are used in the articles, but they also depend on the question *which image types* are used. Bernhardt, Hadj-Abdou, Liebhart, and Pribersky⁷⁴ argue that a large number of visual political depictions do not even reach the reader's consciousness because the representations of political actors seem to be interchangeable due to their ritualized visual depiction in news reporting. The pictures used in Stimulus 1 certainly belong to this category of images, but they had been chosen

intentionally because they were typical examples for the representation of Israeli politicians identified in the previous content analysis. This argument suggests that the visual human-interest frame used in the experiment is a much stronger frame than the weaker visual political frame, with implications not only regarding their emotional power, but also the articles' communicative quality.

The assumption that images guide attention and render a journalistic text more interesting and enjoyable was confirmed, but has to be specified. In H2, visuals were examined regarding their decorative functions. The expectation was that the mere presence of pictures would increase the communicative quality of the article. Even though significant differences in the evaluation of the article's communicative quality between the visually framed stimuli and the stimulus without visual framing were observed, the differences in this context mostly result from the visual human-interest frame. Indeed, the slight evaluation differences between the visual political framing and the stimulus without visual framing were not significant. Again, the "weaker" visual political frame did not have the powerful effect images are believed to have. Thus, the communicative quality often assigned to the decorative function of images can only fully unfold when the picture's message is strong.

Similarly, the weak visual frame and the strong visual frame influenced the perceived actor representation differently. In accordance with the theoretical perspective of framing effects⁷⁵ and the findings of D'Angelo and Lombard,⁷⁶ the exposure to the story with the visual human-interest frame prompted individuals to perceive frame-relevant propositions (representation of Palestinian civilians) as being more prominent. The results indicate that at the time recipients were asked for judgment, the stronger visual human-interest frame served as a prime for the subsequent evaluation, while the visual political frame was again too weak to cause framing effects regarding the representation of actors.

When it comes to journalistic objectivity, the "power of images" unfolds in another manner because the type and the strength of the frame have no impact at all. When journalistic quality is to be judged, images are not taken into consideration. The use of images and visual frames did not impact the evaluation of journalistic objectivity. This alarming finding corresponds to the assumptions of Fahmy and Kim⁷⁷ and Messaris and Abraham,⁷⁸ who argue that visual framing is not recognized by the audience. Our findings suggest that although visual frames have no impact on the perceived objectivity of news stories, they have an influence on the evaluation of various article-related aspects.

If photojournalists/journalists use visual frames which predominantly highlight certain aspects of an issue, it becomes likelier that the recipients fall short of a comprehensive view of the issue. Images affect recipients' evaluations of articles and should, therefore, be used in a responsible way in journalistic news production, particularly because recipients are less aware of visual framing than of verbal framing. The selection of images in news production is more than a simple aesthetic

choice and should thus be considered a substantial, content-related, meaningful process. When reporting about critical issues, such as political conflicts, journalists should "make an effort to balance the photographic content of news reports, presenting visual documentation for all sides involved in an issue."⁷⁹ Otherwise, unintended effects will influence the readers' perceptions and thus lead to a higher perception of inaccuracy in the news coverage.

The visual human-interest frame, which derived from a previous content analysis, could also be interpreted as pro-Palestinian news bias. Our results suggest that however impartial the verbal content may be, (unintended) frame effects will occur if the visual content is not impartial. This supports Coleman's⁸⁰ and Martinec and Salway's⁸¹ claims that visual and verbal media content should not be analyzed separately. Still, the semantic interaction of images and text needs further research to explore the effects of multimodal interactions.

One limitation of the present study is the rather artificial situation of the experimental design. The participants were given ten to fifteen minutes to read the rather long article. The length of the text also raised the question whether the selected visual stimuli might be too weak. Yet a larger amount of one-sided visual frames would have led to a stronger visual news bias, which would not have corresponded with the quality of the verbal text. Hence, by using images and a journalistic text taken from actual coverage, the effort was made to keep the experimental situation as realistic as possible. Thus, the study met the requirements⁸² to use "original" visual media-frames identified in a previous content analysis, and using a control group "allowed for distinguishing between frames that move opinion and those that do not."⁸³ Another limitation is that the study measured the framing effects just once, directly after the stimulus presentation. Thus, only short-term activation or transformation effects, respectively priming effects, were tested. For the investigation of long-term effects, longitudinal research designs are needed.

NOTES

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10. See, for example, Robert M. Entman, “Framing: Toward Clarification of a Fractured Paradigm,” *Journal of Communication* 43 (4, 1993): 51-58; William A. Gamson and André Modigliani, “Media Discourse and Public Opinion on Nuclear Power: A Constructionist Approach,” *The American Journal of Sociology* 95 (1, 1989): 1-37; Todd Gitlin, *The Whole World Is Watching: Mass Media in the Making and Unmaking of the New Left* (Berkeley: University of California Press, 1980); Stephen D. Reese, “Prologue – Framing Public Life: A Bridging Model for Media Research,” in *Framing Public Life: Perspectives on Media and Our Understanding of the Social World*, ed. Stephen D. Reese, Oscar H. Gandy, Jr., and August E. Grant (Mahwah, NJ: Lawrence Erlbaum Associates, 2003), 7-31; Dietram A. Scheufele, “Framing as a Theory of Media Effects,” *Journal of Communication* 49 (1, 1999): 103-22; Bertram Scheufele, “Framing-effects Approach: A Theoretical and Methodological Critique,” *Communications: The European Journal of Communication Research* 29 (4, 2004): 401-28.

11. Erving Goffman, *Frame Analysis: An Essay on the Organization of Experience* (Boston: Northeastern University Press, 1993, first 1974), 21.

12. Scheufele, “Framing-effects Approach.”

13. Reese, “Prologue,” 11.

14. Andreas R.T. Schuck and Claes H. de Vreese, “Between Risk and Opportunity: News Framing and Its Effects on Public Support for EU Enlargement,” *European Journal of Communication* 21 (1, 2006): 5-32.

15. W. Russell Neuman, Marion R. Just, and Ann N. Crigler, *Common Knowledge: News and the Construction of Political Meaning* (Chicago:

University of Chicago Press, 1992).

16. Bertram Scheufele, "Visuelles Medien-Framing und Framing-Effekte. Zur Analyse visueller Kommunikation aus der Framing-Perspektive," in *Kommunikation visuell: Das Bild als Forschungsgegenstand. Grundlagen und Perspektiven*, ed. Thomas Knieper and Marion G. Müller (Köln, Germany: Herbert von Halem Verlag, 2001), 144-58.

17. Neuman, Just, and Crigler, *Common Knowledge*, 120.

18. Scheufele, "Framing-effects Approach"; Bertram T. Scheufele and Dietram A. Scheufele, "Of Spreading Activation, Applicability, and Schemas: Conceptual Distinctions and Their Operational Implications for Measuring Frames and Framing Effects," in *Doing News Framing Analysis: Empirical and Theoretical Perspectives*, ed. Paul D'Angelo and Jim A. Kuypers (New York/London: Routledge, 2010), 110-34.

19. Scheufele distinguishes between a journalist's individual frames and newsroom frames. Some authors conceive the impact of journalistic frames on news production as a form of news bias, whereas Scheufele argues that framing is not about editorial lines or individual attitudes of journalists: "Rather the framing approach proposes that journalists prefer information that is consistent with their schemata or frames." Bertram Scheufele, "Frames, Schemata, and News Reporting," *Communications: The European Journal of Communication Research* 31 (1, 2006): 65-83, 68.

20. Gamson and Modigliani, "Media Discourse and Public Opinion on Nuclear Power"; Zhongdang Pan and Gerald M. Kosicki, "Framing as a Strategic Action in Public Deliberation," in *Framing Public Life*, ed. Reese, Gandy, and Grant, 35-65.

21. Pan and Kosicki, "Framing as a Strategic Action in Public Deliberation," 39.

22. Claes H. de Vreese and Hajo Boomgaarden, "Valenced News Frames and Public Support for the EU," *Communications: The European Journal of Communication Research* 28 (4, 2003): 361-81; Shanto Iyengar, *Is Anyone Responsible? How Television Frames Political Issues* (Chicago: University of Chicago Press, 1991); Scheufele, "Framing as a Theory of Media Effects"; Schuck and de Vreese, "Between Risk and Opportunity."

23. See, for example, Thomas E. Nelson, Rosalee A. Clawson, and Zoe M. Oxley, "Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance," *The American Political Science Review* 91 (3, 1997): 567-83; Thomas E. Nelson and Donald R. Kinder, "Issue Frames and Group-Centrism in American Public Opinion," *Journal of Politics* 58 (4, 1996): 1055-78; Vincent Price, David Tewksbury, and Elizabeth Powers, "Switching Trains of Thought: The Impact of News Frames on Readers' Cognitive Responses," *Communication Research* 24 (5, 1997): 481-506; June Woong Rhee, "Strategy and Issue Frames in Election Coverage: A Social Cognitive Account of Framing Effects," *Journal of Communication* 47 (3, 1997): 26-48; Schuck and de Vreese, "Between Risk and Opportunity"; Patti M. Valkenburg, Holli A. Semetko, and Claes H. de Vreese, "The Effects of News Frames on Readers' Thoughts and Recall," *Communication Research* 26 (5, 1999): 550-69.

24. See endnote 29.

25. Price, Tewksbury, and Powers, "Switching Trains of Thought," 486.

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26. Scheufele, "Framing-effects Approach," 408.
27. Price, Tewksbury, and Powers, "Switching Trains of Thought," 486.
28. Scheufele, "Framing-effects Approach."
29. Scheufele distinguishes between frames and schemas, whereas other authors, as for example, Entman, equate those concepts. See Entman, "Framing." Some approaches of second-level agenda setting and priming equate frames and schemas as well: Maxwell E. McCombs and George Estrada, "The News Media and the Pictures in our Heads," in *Do the Media Govern? Politicians, Voters, and Reporters in America*, ed. Shanto Iyengar and Richard Reeves (Thousand Oaks, CA: Sage, 1997), 237-47; Amy E. Jasperson, Dhavan V. Shah, Mark Watts, Ronald J. Faber, and David P. Fan, "Framing and the Public Agenda: Media Effects on the Importance of the Federal Budget Deficit," *Political Communication* 15 (2, 1998): 205-24. Other authors, like Scheufele and Scheufele, distinguish between the mentioned concepts, defining schema as "a configuration of salient attributes" (Scheufele and Scheufele, "Of Spreading Activation, Applicability, and Schemas," 116). In this perspective, all frames have attributes, but not all attributes are frames. "A frame is an overarching master narrative under which there can be several attributes" (Renita Coleman, "Framing the Pictures in Our Heads: Exploring the Framing and Agenda-Setting Effects of Visual Images," in *Doing News Framing Analysis*, ed. D'Angelo and Kuypers, 233-61, 251). Thus, second-level agenda setting is concerned with how the media convey attributes of topics and persons to the recipients or, in other words, how the topics are defined. In contrast, frames are cross-thematic. Some analyses focus on effects of framing on second-level agenda setting.
30. Paul D'Angelo and Matthew Lombard, "The Power of the Press: The Effects of Press Frames in Political Campaign News on Media Perception," *Atlantic Journal of Communication* 16 (1, 2008): 1-32; David Tewksbury and Dietram A. Scheufele, "News Framing Theory and Research," in *Media Effects: Advances in Theory and Research*, 3d ed., ed. Jennings Bryant and Mary Beth Oliver (New York/London: Routledge, 2009), 17-33.
31. Tewksbury and Scheufele, "News Framing Theory and Research," 21.
32. Coleman, "Framing the Pictures in Our Heads."
33. Ilija Tomanic Trivundza, "Many Voices, One Picture: Photographic Coverage of Foreign News in Slovenian Daily Press (1980, 2004)," *Javnost – The Public* 13 (2, 2006): 21-40, 33.
34. Entman, "Framing," 52.
35. Coleman, "Framing the Pictures in Our Heads."
36. For example, Porismita Borah, "Comparing Visual Framing in Newspapers: Hurricane Katrina versus Tsunami," *Newspaper Research Journal* 30 (1, 2009): 50-57; Shahira Fahmy, "Contrasting Visual Frames of Our Times: A Framing Analysis of English- and Arabic-language Press Coverage of War and Terrorism," *International Communication Gazette* 72 (8, 2010): 695-717; Shahira Fahmy, "Picturing Afghan Women: A Content Analysis of AP Wire Photographs during the Taliban Regime and after

the Fall of the Taliban Regime," *Gazette: The International Journal for Communication Studies* 66 (2, 2004): 91-112; Shahira Fahmy and Daekyung Kim, "Picturing the Iraq War: Constructing the Image of War in the British and US Press," *Gazette: The International Journal for Communication Studies* 70 (6, 2008): 443-63; Paul Messaris and Linus Abraham, "The Role of Images in Framing News Stories," in *Framing Public Life*, ed. Reese, Gandy, and Grant, 215-26.

37. Scheufele, "Visuelles Medien-Framing und Framing-Effekte."

38. Rhonda Gibson and Dolf Zillmann, "Reading between the Photographs: The Influence of Incidental Pictorial Information on Issue Perception," *Journalism & Mass Communication Quarterly* 77 (2, 2000): 355-66, 357.

39. Gibson and Zillmann "Reading between the Photographs," 357; see Allan Paivio, *Mental Representations: A Dual Coding Approach* (New York: Oxford University Press, 1986).

40. Fahmy and Kim, "Picturing the Iraq War"; Messaris and Abraham, "The Role of Images in Framing News Stories."

41. Fahmy and Kim, "Picturing the Iraq War"; Shahira Fahmy and Wayne Wanta, "What Visual Journalists Think Others Think," *Visual Communication Quarterly* 14 (1, 2007), 16-31; David D. Perlmutter, *Photojournalism and Foreign Policy: Icons of Outrage in International Crises* (Westport, CT: Praeger, 1998).

42. Wayne Wanta and Virginia Roark, "Cognitive and Affective Responses to Newspaper Photographs" (paper presented at the annual meeting of the AEJMC, Kansas City, MO, August 1993).

43. Wanta and Roark, "Cognitive and Affective Responses to Newspaper Photographs," 26.

44. Dolf Zillmann, Rhonda Gibson, and Stephanie L. Sargent, "Effects of Photographs in News-Magazine Reports on Issue Perception," *Media Psychology* 1 (3, 1999): 207-28.

45. Kevin G. Barnhurst, *Seeing the Newspaper* (New York: Saint Martin's Press, 1994); Bucher and Schumacher, "The Relevance of Attention for Selecting News Content"; Holsanova, Rahm, and Holmqvist, "Entry Points and Reading Paths on Newspaper Spreads"; Mendelson and Thorson, "How Verbalizers and Visualizers Process the Newspaper Environment."

46. Bucher and Schumacher, "The Relevance of Attention for Selecting News Content."

47. Barnhurst, *Seeing the Newspaper*.

48. Wanta and Roark, "Cognitive and Affective Responses to Newspaper Photographs."

49. Doelker, *Ein Bild ist mehr als ein Bild*, 57.

50. Uli Bernhard and Wilfried Scharf, "'Infotainment' in der Presse. Eine Längsschnittuntersuchung 1980-2007 dreier regionaler Tageszeitungen" ("Infotainment' in the Daily Paper. A Longitudinal Study 1980-2007 of Three Regional Daily Papers"), *Publizistik* 53 (2, 2008): 231-50.

51. Christina Konstantinidou, "The Spectacle of Suffering and Death: The Photographic Representation of War in Greek Newspapers," *Visual Communication* 7 (2, 2008): 143-169.

52. Linus Abraham and Osei Appiah, "Framing News Stories: The

Role of Visual Imagery in Priming Racial Stereotypes," *The Howard Journal of Communications* 17 (3, 2006): 183-203; Gibson and Zillmann, "Reading between the Photographs"; Michael Pfau, Michel Haigh, Andeelynn Fifrick, Douglas Holl, Allison Tedesco, Jay Cope, David Nunnally, Amy Schiess, Donald Preston, Paul Roszkowski, and Marion Martin, "The Effect of Print News Photographs of the Casualties of War," *Journalism & Mass Communication Quarterly* 83 (1, 2006): 150-68.

53. Gibson and Zillmann, "Reading between the Photographs," 355.

54. Pfau et al., "The Effect of Print News Photographs of the Casualties of War."

55. Gibson and Zillmann, "Reading between the Photographs."

56. Zillmann, Gibson, and Sargent, "Effects of Photographs in News-Magazine Reports on Issue Perception."

57. Thomas Petersen, "Lasswells Frage und Hovlands Problem. Feldexperimente zur Wirkung potenziell emotionalisierender Bildelemente in der Medienberichterstattung," *Publizistik* 51 (1, 2006): 39-51.

58. Fahmy, "Contrasting Visual Frames of our Times."

59. Robert Entman, "Framing U.S. Coverage of International News: Contrasts in Narratives of the KAL and Iran Air Incidents," *Journal of Communication* 41 (4, 1991): 6-27.

60. Dobernic, Lobinger, and Wetzstein, "Covering Conflict."

61. Konstantinidou, "The Spectacle of Suffering and Death."

62. Entman, "Framing U.S. Coverage of International News."

63. Horst Pöttker, "News and Its Communicative Quality: The Inverted Pyramid – When and Why Did It Appear?" *Journalism Studies* 4 (4, 2003): 501-11.

64. Doris A. Graber, "Say It with Pictures," *The Annals of the American Academy of Political and Social Science* 546 (1, 1996): 85-96.

65. Fahmy and Kim, "Picturing the Iraq War"; Messaris and Abraham, "The Role of Images in Framing News Stories."

66. Dobernic, Lobinger, and Wetzstein, "Covering Conflict."

67. The mean age was 22.9 (sd = 2.2) years (Stimulus 1: $M = 22.7$, $sd = 2.1$; Stimulus 2: $M = 23.1$, $sd = 2.5$; Stimulus 3: $M = 22.7$, $sd = 1.8$), $F(2, 239) = .95$, n.s. In terms of gender, 72.5% of respondents were female (Stimulus 1: 67.5%; Stimulus 2: 78.8%; Stimulus 3: 71.3%, $\chi^2(2, N = 240) = 2.63$, n.s.).

68. Pöttker, "News and Its Communicative Quality."

69. These are the translations of the German adjectives used in the experiment.

70. Denis McQuail, *McQuail's Mass Communication Theory*, 6th ed. (Thousand Oaks, CA: Sage, 2010).

71. Graber, "Say It with Pictures," 87.

72. Fahmy and Kim, "Picturing the Iraq War"; Messaris and Abraham, "The Role of Images in Framing News Stories."

73. No differences were expected for the evaluation of the representation of "Israeli civilians" and "Palestinian politicians/officials," as they were not visually represented. Indeed, the evaluation of these was almost identical.

74. Petra Bernhardt, Leila Hadj-Abdou, Karin Liebhart, and Andreas

Pribersky, *EUropäische Bildpolitiken. Politische Bildanalyse an Beispielen der EU-Politik* (Vienna, Austria: Facultas WUV, 2009).

75. Price, Tewksbury, and Powers, "Switching Trains of Thought"; Scheufele, "Framing-effects Approach"; Tewksbury and Scheufele, "News Framing Theory and Research."

76. D'Angelo and Lombard, "The Power of the Press."

77. Fahmy and Kim, "Picturing the Iraq War."

78. Messaris and Abraham, "The Role of Images in Framing News Stories."

79. Zillmann, Gibson, and Sargent, "Effects of Photographs in News-Magazine Reports on Issue Perception," 225.

80. Coleman, "Framing the Pictures in Our Heads."

81. Martinec and Salway, "A System for Image-text Relations in New (and Old) Media."

82. Scheufele, "Framing-effects Approach."

83. Paul R. Brewer and Kimberly Gross, "Studying the Effects of Framing on Public Opinion about Policy Issues: Does What We See Depend on How We Look?" in *Doing News Framing Analysis*, ed. D'Angelo and Kuypers, 159-86, 163.