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## The Refugees: Threatening or Beneficial? Exploring the Effects of Positive and Negative Attitudes and Communication on Hostile Media Perceptions

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**Abstract:** In the actual debate on refugees in Germany the media's role was heavily disputed. To understand this controversy, this study examines hostile media perceptions from the audience perspective. Building up on previous research on the hostile media phenomenon and considering literature on pro- and anti-immigrant attitudes, this study explores the effect of positive and negative attitudes towards refugees as well as of mainstream media, social media and interpersonal communication on hostile media perceptions. Using survey data (N=1005) and applying structural equation modelling, several hypotheses on the effects of attitudes and communication variables were tested. The results demonstrate that perceptions of media bias are strongly influenced by people's negative and positive attitudes towards refugees and the basic hostile media hypothesis was confirmed. Moreover, our findings reveal that the perceived intensity of media coverage on contested aspects of the refugee issue also has an effect on perceptions of hostility. However, the various communication variables did not prove to have direct effects, whereas mainstream media use, social media use, and interpersonal communication with refugees had indirect effects on the hostile media perception.

**Keywords:** refugee debate in Germany, hostile media perceptions, attitudes towards refugees, mass media, social media, media effects

#### Introduction

Since summer 2015, the number of refugees coming to the EU has increased dramatically. The political discussion about the adequate handling of this challenge threatens both the relationships among the European member states and the social cohesion within the countries. Especially in Germany, the public debate between those who believe the country can and should welcome refugees and those who desire more restrictive policies, such as imposing upper limits or even demanding the use of weapons against refugees, is becoming increasingly polarised and heated.

Amidst this discourse, it becomes more and more challenging for mass media to fulfil its function: while the media have to provide essential information on all relevant aspects and events related to the refugee issue, it is at the same time expected that they facilitate an open and deliberate discourse among the different societal and political groups involved in the controversy. Beyond this, media and journalists are also expected to take the role of active participants in the debate by commenting on the processes and political decisions to orientate the public and help it in opinion formation and decision making.

For citizens, mass media is the main source of information on political issues. Thus, how the population perceives the political discourse on the opportunities, risks, problems, and challenges related to the arriving refugees is mainly influenced by the media and will inevitably impact the course of the public debate. Because of the expository role of the media, it is quite problematic when they are accused of failing to meet these requirements. However, this is exactly what has been observed in Germany at the end of 2015 and the beginning of 2016. The claim that the media are failing to cover the refugee issue in an appropriate way is one of the most contentious issues of the current public debate. Different surveys indicate that the Germans are becoming increasingly skeptical about the media's coverage of the refugees. While in October 2015 just 20% of the population agreed that the press lied when covering the refugee issue (ARD, 2015a), this percentage almost doubled by December 2015 (Köcher, 2015, p. 8). Moreover, the survey data from December 2015 reveal that only 25% of the German population believe that the German media provide a realistic picture of the socio-demographic characteristics and qualifications of refugees. Almost every second respondent criticised the media for reporting too little about the risks the refugees pose to the country. Furthermore, 41% had the impression that the media were largely ignoring critical voices. With regard to people's preferences, it was found that a large majority (73%) clearly called for uncompromising coverage, even if this might have negative effects. In contrast, only 18% argued for restrained reporting in consideration of possible consequences (Köcher, 2015, p. 8). The results show that many Germans are not only dissatisfied with the accuracy and quality of the media coverage on refugees, but suspect that the media are intentionally hiding important information and concealing the truth. Given the important role of media in modern democracies, these developments are alarming. Thus, the question arises why a significant part of the German population perceives the media coverage as biased and inaccurate, while others do not share this negative perception.

To answer this question, we start with a literature review on audience perceptions of media bias, with a focus on the research on media quality and hostile media perceptions. Based on the literature review, we develop a research model and specify several hypotheses. In order to test these hypotheses, we conduct a survey in Germany. Next, the methodical approach of data gathering, data management and data analysis (structural equation model) are explained before the results are presented and discussed in the context of the actual debate on refugees in Germany.

#### **Literature Review**

## Media quality – media bias

The problem of media bias is directly related to the discussion on media quality. Most research on the quality of news media is based on the normative assumption that the media have a certain social responsibility. From this perspective, media's impartiality in terms of neutrality and balance is one of the central quality criteria (e.g., Arnold, 2009, p. 195; McQuail, 1992). While neutrality means the objective presentation of information, balance refers to the selection of information and perspectives in such a way that, in political controversies, supporters and opponents are considered equally (Hagen, 1995, p. 120). Ideally, this should guarantee that in public debates all arguments, positions and actors are presented in an appropriate balanced way, avoiding a one-sided distortion of the public debate. However, achieving balance is rather difficult (Arnold, 2009, p. 196). Yet, the question whether all relevant positions and actors of a given debate are presented (McQuail, 1992) in the media is almost impossible to determine. Even though balance is difficult to define and measure, it is possible to analyze whether the media are supporting one of the actors of a debate more than the others (Hagen, 1995, p. 122). Aside from this long strand of contentanalysis-based quality research, there are also audience studies examining how the public views the quality of media. Studies focusing on the audience perspective reveal that the public also has normative quality expectations (e.g., Jungnickel, 2011; Voigt, 2016, p. 63. ff.). For media users in their role as citizens, it is particularly important that the media comply with certain democratic, social and/or cultural values. Consequently, quality "valuations of the users reflect their perceptions of the media's functions for society and culture" (Hasebrink, 2011, p. 326). Relevant criteria for citizens' media assessment are credibility, critical reporting and non-bias. Thus, if media coverage is perceived as biased, media quality will be judged as low and the fulfilment of media's democratic function will be questioned.

#### Audience perceptions of media bias

In the literature of media bias research, the concept of media hostility plays an important role. Hostile media perceptions were first analysed in the pioneering experimental study of Vallone, Ross and Lepper (1985). The researchers exposed Israeli and Palestinian partisans to identical *neutral* television news on the 1983 Beirut Massacre and found that both partisan groups classified the same content as biased against their side, while non-partisans perceived it as neutral. The authors called this finding the hostile media phenomenon. It describes the tendency of people on both sides of a political or social controversy to perceive media coverage as biased or even hostile against their side. The hostile media phenomenon has been replicated in a number of subsequent laboratory studies across a wide range of controversial issues and partisan groups, such as Middle East conflicts (e.g., Giner-Sorolla & Chaiken, 1994; Perloff, 1989), genetically modified food (e.g., Gunther & Liebhart, 2006; Gunther & Schmitt, 2004; Gunther, Miller, & Liebhart, 2009), childhood

vaccination (e.g., Gunther et al., 2012), and abortion (e.g., Hartmann & Tanis, 2013). The basic assumption of the approach says that people perceive *neutral* content as biased. Gunther and his colleagues (2001) expanded the concept. Their research showed that even in the case of *one-sided coverage* the supporters of the favoured standpoint perceived it as distorted against their preferences. No matter how balanced or biased news reporting actually is, opposing camps will always have divergent perceptions of it (Gunther et al., 2001, p. 313). To consider this finding, Gunther and his colleagues extended the initial concept to the so-called *relative hostile media effect* (Gunther et al., 2001; Gunther & Christen, 2002; Gunther et al., 2009). The conceptual extension is an important contribution to hostile media research, as in reality, absolutely neutral and balanced news reporting might be rare.

Besides evidence for the phenomenon in laboratory studies, findings from survey research have brought more external validity into hostile media research. Findings from survey studies, using political ideology and party affiliation (e.g., Dalton et al., 1998; Huge & Glynn, 2010; Lee, 2005), or individual opinions on controversial issues (e.g., Gunther & Christen, 2002; Hwang et al., 2008; McKeever et al., 2012) as independent variables, have shown that these variables significantly predict the hostile media phenomenon. For example, the study by Dalton et al. (1998) revealed that in the 1992 US election, campaign readers' perceptions of partisan leanings in daily newspaper coverage was shaped by people's political attitudes. The general finding that Democrats and Republicans perceive media coverage as biased in different directions has also been supported in various subsequent studies (e.g., Feldman et al., 2015; Huge & Glynn, 2010; Lee, 2005).

Examining the effect of people's issue-related opinions, the study by McKeever et al. (2012) is of particular interest for our research, as the authors explored the influence of pro- or anti-immigration attitudes on the perceptions of bias in the media's coverage of immigrants. The study was conducted in North Carolina, where the Latino population had increased almost 400% over the last 20 years. The authors predicted that people holding anti-immigrant attitudes would perceive the media as biased in favour of immigrants, while those holding pro-immigrant attitudes would judge media coverage to be negatively distorted towards immigrants. The hypothesis was strongly supported by their findings: "As anti-immigration sentiment increased, judgment of media coverage of immigration as favourable also increased. This relationship indicates anti-immigrant respondents saw media coverage as hostile to their view" (McKeever et al., 2012, p. 430).

Taken together, previous research has shown strong evidence for the occurrence of hostile media effects across varying issues, different partisan groups and research designs. The effect has also been observed in the case of media coverage of immigrants in the US. Referring to the actual debate on refugees we know from various national opinion polls (e.g. ARD, 2015b; Bundespresseamt, 2016) that this refugee issue is fundamentally polarized among those welcoming and supporting refugees on the one side and those holding xenophobic and negative attitudes against

refugees on the other side. Against the theoretical background discussed above, it seems reasonable to expect that media coverage on the refugee issue may also provoke hostile media perceptions among people holding opposing views on refugees. However, so far in Germany very little empirical evidence exists supporting the hostile media phenomenon in general and in particular related to the refugees' or immigration issue no research was done until now.¹ Nevertheless, it can be interpreted as first clue for hostile media perceptions that parts of the German population perceive the media's coverage concerning the refugee issue as inaccurate in terms of leaving out facts and ignoring critical voices (ARD, 2015a; Köcher, 2015).

#### The role of exposure to information from different sources

The hostile media phenomenon describes the relationship between issue-specific attitudes and the perception of a certain slant in media coverage. Perceiving and judging the coverage necessarily requires at least some exposure to media content on the issue. In laboratory studies, this 'exposure precondition' is artificially brought about by presenting newspaper articles or newscasts as stimulus material to the participants (e.g., Arpan & Nabi, 2011; Giner-Sorolla & Chaiken, 1994; Gunther et al., 2001, 2009, 2012; Hartmann & Tanis, 2013; Vallone et al., 1985). However, in real field conditions, exposure to issue-related information cannot be taken for granted. Consequently, the intensity of issue-specific media use becomes a relevant factor for the investigation of hostile media perceptions. The effect of topic-related media use intensity has already been scrutinised in several studies.

Tsfati (2007) investigated how Arab citizens living in Israel perceived the media images of Arabs. To examine the possible effect of news media exposure on the perception of hostility, both exposure to Arab media outlets and to mainstream Israeli media outlets were measured. The author found that the perception of hostility was not influenced by the amount of exposure to Israeli mainstream media, but by their exposure to Arab media.

In their study on hostile media effects in the context of immigration, McKeever et al. (2012) explored if the amount of issue-specific attention to news about immigration impacts people's perceptions of media coverage of the topic. They investigated if the reporting is perceived as too favourable and if the amount of issue-related information provided by the media is evaluated as too abundant. The findings revealed that people with negative attitudes towards immigrants also paid more attention to media coverage of immigrants and immigration. Moreover, higher attention to news about immigrants increased people's perceptions that media coverage is in favour of immigrants and led to negative evaluations of the amount of attention the media pays to immigrant issues (McKeever et al. 2012, p. 432).

conflicting parties perceive the media as biased against their view (Post, 2015).

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<sup>&</sup>lt;sup>1</sup> In fact, there is one study, primarily focusing on the consequences of perceived media hostility and the media's presumed influence in the German controversy over aircraft noise, documenting that both

In addition to mass media exposure, the effect of interpersonal communication was also investigated. For example, Ho et al. (2011) examined perceptions of distortion in political media coverage, in general, as well as issue-specific bias. Concerning the general perception of political coverage, they found that frequent use of newspaper hard-news directly affected people's perceptions of political media bias. Moreover, people who frequently used newspaper and television hard-news were more likely to discuss politics with others. In turn, these discussions led to stronger perceptions of media bias. In the issue-specific context, the authors found an indirect effect. The effect of hard-news usage on perceived bias in media coverage was mediated by personal discussions on politics, science and technology (Ho et al., 2011, p. 356 ff.).

In addition, Barnidge and Rojas (2014, p. 146) examined hostile media perceptions concerning politics both in a general and in an issue-specific context. Their findings indicate varying effects of media exposure and interpersonal communication under these different conditions. While people's general perceptions of media bias were not affected by the frequency of exposure to mainstream media, they were positively related to the size of their political talk network. However, regarding the perceived issue-specific bias, it was the other way around: perceptions of media bias on the specific issue were positively affected by media exposure, but not by interpersonal communication.

To conclude, previous survey studies provided convincing evidence that both the amount of exposure to information in mainstream media outlets (television, newspapers, radio and the Internet) and interpersonal communication affect the incidence and intensity of perceptions of media bias. Thus, considering the actual context of our study and the findings of the abovementioned study on immigration (McKeever et al., 2012), it seems plausible that people on both sides of the refugee controversy will perceive media coverage as biased against their view. Furthermore, since the issue has been at the top of the media agenda for several months, it is reasonable to expect that it will also be at the top of the interpersonal agenda and, hence, people will frequently discuss the topic with others (Rössler, 1997). As recent surveys in Germany demonstrate, the media's coverage on the topic is perceived by many Germans as biased; thus, the influence of interpersonal communication on the evaluation of the coverage might be even higher than under normal conditions. In the case of the refugee issue, a distinction must be made between the two very different kinds of interpersonal communication: talking about refugees and talking to refugees. Thus, it is necessary to differentiate the interpersonal communication in two different spheres.

Until now, hostile media research has focused on the role of traditional mainstream media. However, in a fundamentally changing media landscape where social media platforms such as Facebook are gaining more importance in societal and political contexts, they must be considered more in future hostile media research (Perloff, 2015, p. 719 ff.). This is especially true in the context of the refugee issue. The problematic role of social media in the public debate on refugees was intensely

discussed in Germany. Facebook in particular was criticized for permitting racist hate postings against refugees. In answer to this debate, the German Minister of Justice reached an agreement with Google, Twitter and Facebook in which the media companies made a commitment to improve the supervision of the postings and delete illegal content. Taken together, this indicates that besides the traditional mainstream media both interpersonal communication and non-mainstream media can function as important, complementary or even contrary information sources on the refugee issue.

#### Hypotheses and research questions

Based on the existing literature, we developed a research model (Figure 1) as a guideline for the subsequent analyses. The model combines seven concepts: a) negative and positive attitudes towards refugees; b) perceptions of media coverage of refugees; c) amount of issue-related traditional mass media use; d) amount of interpersonal communication *about* refugees; e) amount of interpersonal communication *with* refugees; d) social media use; and f) several background variables deduced from the literature that might influence all the other concepts. The assumed relationships between these concepts will be specified in the following hypotheses. We argue that:

H1a: Hostile Media Hypothesis: The more negative people's attitudes towards refugees, the stronger the perceived positive media bias.

H1b: Hostile Media Hypothesis: The more positive people's attitudes towards refugees, the stronger the perceived negative media bias.

Our next hypothesis takes into account that the refugee topic is complex and consists of a variety of aspects. Moreover, people might differ in their perceptions of how intensely the media cover these different aspects of the issue. We assume that the perceived amount of coverage on such aspects can be used as an additional indicator of missing objectivity. If recipients have the impression that journalists (intentionally) ignore or downplay specific aspects and problems, they might perceive such a journalistic non-selection as bias too. Consequently, such perceptions could also trigger different hostility-effects. In the context of the prevailing public debate in Germany, in which populist movements accused the mainstream media for lying (Lügenpresse) and for being biased in favor of the refugees, we hypothesize:

*H2:* The stronger peoples' impression that the media do not cover contested aspects of the refugee issue, the stronger the perceived positive media bias.

Nevertheless, besides all perceived bias of the media coverage, we assume against the background of the general agenda setting function of the news a positive relationship between issue-specific media use and the perceived amount of coverage on contested

aspects of the refugee issue. Thus, we hypothesize that especially the use of mainstream mass media influences the perceived amount of coverage:

H3: The higher the issue-related media use, the higher the perceived amount of coverage on contested aspects of the refugee issue.

Exposure to issue-related information and communication is a necessary precondition for hostile media effects. Thus, considering people's exposure to information on refugees received through mainstream media coverage, we assume a direct effect of media use on hostile media perceptions. As already mentioned, the public discourse in Germany was dominated by full-throated critics of the press. Right wing populists accused the media for hiding the truth, ignoring the problems and thus covering the issue too positively. As most German parties in the parliament supported the government's welcome policy at least to some extent, it seems reasonable to expect that the variance on the issue-related coverage of the mainstream media is limited and indexed by the established political parties (Bennett, 1990). From that perspective one might come to the conclusion that people relying on mainstream media will perceive such a one-sided tendency. Concerning possible effects of interpersonal communication about refugees, we follow the same argumentation. Recognizing that on the one hand side the official German policy was welcoming refugees and mainstream media were cautious to criticize this, while on the other hand side populist movements were blaming both the government and the media for this course, we assume that a "dual climate of opinion" (Noelle-Neumann, 1982) might have developed. Based on this, we assume that interpersonal communication about this conflict will increase people's media skepticism.

With respect to the effects of the direct interpersonal communication *with* refugees we expect contrary results. Concerning direct contacts, we rely on findings that have consistently demonstrated that personal contacts are an effective approach to overcome prejudice (Pettigrew & Tropp, 2006). From that we would expect that interpersonal communication *with* refugees will influence the perception of the media coverage in the opposite direction. Consequently, recipients will evaluate the coverage as too negative. Based on that, we state the following hypotheses on the effects of these different information sources:

*H4a: Mainstream Media Use Hypothesis: The higher the issue-specific media use of mainstream media, the stronger the perceived positive media bias.* 

H4b: Interpersonal Communication about Refugees Hypothesis: The higher people's interpersonal communication about the refugee issue, the stronger the perceived positive media bias.

*H4c:* Interpersonal Communication with Refugees Hypothesis: The higher people's interpersonal communication with refugees, the stronger the perceived negative media bias.

Although online and social media are becoming more and more important, hostile media research has not paid any attention to them so far. As previous research has shown that people select online media and information more to confirm than to challenge their own attitudes (e.g., Knobloch-Westerwick & Kleinman, 2012), it seems plausible for our case that the usage of social media will strengthen perceptions of hostile mainstream media. In line with our arguments concerning "dual climate opinion" and the effects of interpersonal communication we expect similar effects for social media:

*H4d:* Social Media Use Hypothesis: The higher the intensity of social media use, in the context of the refugee debate, the stronger the perceived positive media bias.

In order to accurately examine these hypotheses and research questions, additional factors must be statistically controlled. Based on previous findings on hostile media effects and immigration attitudes, the variables of political interest, political orientation and socio-demographic variables (sex, age, education) were taken into consideration as additional factors.

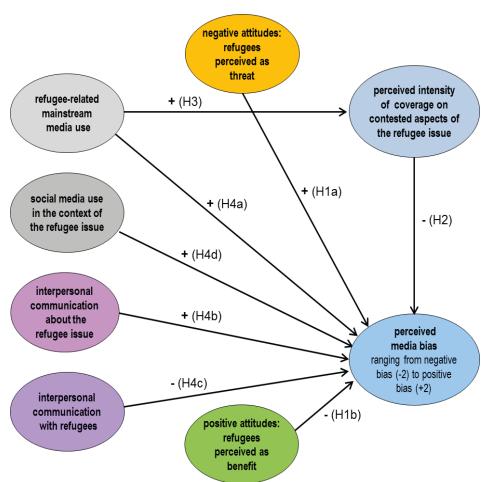


Figure 1: Research model with hypotheses

### **Empirical Methods and Operationalization**

To test our hypotheses, we conducted a quantitative online survey. Based on quotes for age, sex, education and place of residence in Germany, a sample representing the German-speaking online population over the age of 18 was obtained. The data gathering took place between 1st and 10th February, 2016.<sup>2</sup> The sample for the following analysis consists of n = 1,005 people (51% men, 49% women) between 18 and 77 years old (average: 44 years). The formal education was distributed as follows among the respondents: 37% low, 20% middle, 11% high secondary school degree, and 32% university degree. The political orientation was measured with one item on a 7-point scale from 1 'very left' to 7 'very right'. The majority of people positioned themselves in the middle of the political spectrum (39%), while 38% tended more to the left and 23% more to the right (M = 3.8, SD = 1.2).

#### Dependent variables on perceptions of media coverage

Perceptions of the intensity of media coverage on the refugee issue

Besides the classic theoretical assumption that perceptions of media bias are affected by people's issue-related attitudes, this study adds the notion that such perceptions might also be affected by people's perceived amount of coverage on different aspects of the refugee issue. Thus, to examine this effect, we measured people's perception of the intensity of coverage on different aspects of the refugee controversy by asking the respondents how often the media reported on these aspects in the last month (Table 1). The results reveal that although the refugee issue had been at the top of the German media agenda for months, people still had the feeling that media coverage was incomplete. On the one hand, almost everybody perceived the media coverage on government decisions (98%) and Germans' attitudes toward refugees (95%) as extensive, while on the other hand, a significant proportion had the impression that the media was silent about the impacts on Germany's wealth (27%), cultural life (24%) and peaceful coexistence (16%).

<sup>&</sup>lt;sup>2</sup> This project was supported by the 'Förderverein Kommunikations- und Medienwissenschaft' (fkmb) of the University of Bern.

Table 1: Operationalization of the Perceived Intensity of Media Coverage

Please remember the media coverage on the refugee issue; how often did the media report on the following aspects in the last month?

Last month the media reported on	never	occasionally	frequently
the refugees' (absent) willingness to integrate themselves in German society. [societal assimilation]	9%	56%	35%
the impacts on Germany's economic wealth. [economic impacts]	27%	51%	22%
the government's decisions on the refugee issue. [government decision]	2%	24%	75%
the impacts on cultural life in Germany. [cultural impacts]	24%	54%	22%
the consequences of living together peacefully in Germany. [living together peacefully]	16%	52%	32%
the attitudes of the German population towards refugees. [Germans' attitudes]	5%	42%	53%

#### Perceptions of media bias in media coverage on the refugee issue

In most studies, perceptions of media bias are examined using a scale with positive and negative anchors for favorable and unfavorable coverage and a neutral midpoint. By adopting and refining this approach, we measured people's bias perceptions by asking respondents whether the media covers different aspects either too negatively (negative media bias) or too positively (positive media bias). In contrast, those who evaluated media coverage as adequate are considered evaluating the media as being objective (Table 2).

The results show a very diverse picture with approximately three comparable groups across all aspects perceiving the media as too negative, too positive or just adequate. Only in the case of the coverage on the government's decisions on the refugee issue do people clearly perceive a positive bias (47%). However, if leaving the direction of bias aside, then the great majority clearly have the impression that media coverage on the refugee issue is one-sided, either too negatively or too positively.

Table 2: Operationalization of Perceived Media Bias

What is your impression of the media coverage on the refugee issue over the last month? Does the coverage represent the facts, or are media representations biased in one or the other direction?

How did the media present	negative bias²	non-bias (adequate)	positive bias³	M (SD) <sup>1</sup>
the refugees' willingness to integrate themselves in German society?	35%	33%	32%	0.0 (1.0)
impacts on Germany's economic wealth?	35%	27%	38%	0.1 (1.0)
the government's decisions on the refugee issue?	26%	27%	47%	0.4 (1.1)
impacts on cultural life in Germany?	31%	31%	38%	0.1 (1.0)
the consequences for living together peacefully in Germany?	34%	27%	39%	0.1 (1.1)
the attitudes of the German population towards refugees?	35%	34%	31%	0.0 (1.0)

Notes. ¹Mean (M) and standard deviation (SD) on a 5-point scale of -2 'far too negative', -1 'rather too negative', o 'adequate', 1 'rather too positive', 2 'far too positive'; ²points -2 & -1 on the scale; ³points 1 & 2 on the scale

### Operationalization of independent variables

#### Attitudes towards refugees

In order to operationalize the attitudes towards refugees, this study builds on existing research that measures people's pro- and anti-immigrant attitudes in terms of perceived threats and benefits of immigrants (e.g., Esses et al., 2001; Hainmueller & Hopkins, 2014; Tonokovsky & Wolsh, 2016). Previous research has shown that these perceptions are related to specific aspects such as the economy, culture or society. For example, the perceptions of immigrants as being bad for the economy, as being competitors for economic resources, as threatening one's own cultural norms and values, or causing a higher criminality rate are all indicators of negative attitudes. In contrast, people who expect that refugees will improve the situation in the country, for example, in terms of the economy and culture, hold positive attitudes towards immigrants. Against this theoretical background, we developed eight items focusing on perceived economic, cultural, personal, and societal threats and benefits. The answers were obtained using a 4-point agreement scale (1 'totally disagree' to 4 'totally agree'). The results clearly reveal that Germans' attitudes towards refugees are very diverse (Table 3).

Table 3: Operationalization of Negative and Positive Attitudes towards Refugees

	Disagree-	Agree-	M (SD) <sup>3</sup>
	ment¹	ment <sup>2</sup>	
Items for threat perceptions of refugees			
Refugees threaten Germany's economic wealth. [economic threat]	50%	50%	2.5 (1.1)
With the presence of refugees the influence of foreign cultures in Germany has strongly increased. [cultural threat]	27%	73%	3.0 (0.9)
I perceive refugees as a threat to my immediate environment. [personal threat]	55%	45%	2.2 (1.1)
Refugees are unwilling to accept German rules and norms. [societal threat]	39%	61%	2.7 (0.9)
Items for benefit perceptions of refugees			
Refugees are a great opportunity for the economic development of Germany. [economic benefit]	56%	44%	2.3 (0.9)
Refugees represent a cultural enrichment of life in Germany. [cultural benefit]	52%	48%	2.4 (1.0)
I can imagine refugees being part of my circle of friends. [personal benefit]	51%	49%	2.4 (1.0)
By accommodating refugees, humanitarian values of the German population are strengthened. [societal benefit]	51%	49%	2.4 (0.9)

Notes. ¹Points 1 & 2 on the scale; ²Points 3 & 4 on the scale; ³Mean (M) and standard deviation (SD) on a 4-point scale of 1 'totally disagree' to 4 'totally agree'; n = 1,005

Media use and interpersonal communication in the context of the refugee issue To examine the influence of the media and interpersonal communication in the context of the refugee issue (H4a-H4d), this study considered four communication variables as sources of information, respectively. First, people were questioned about the intensity of their *issue-specific mainstream media use*, and second, about their *social media use* in the context of the refugee debate. In both cases, intensity was measured on a 6-point scale (o 'never' to 5 'several times a day'). Besides information on refugees perceived through mainstream and social media, participants were also asked about the intensity of their *interpersonal communication about refugees with others* in recent months, and beyond that, about their *interpersonal direct communication with refugees* (Table 4). The intensity of their interpersonal communication was measured on a 7-point scale (from 'never' to 'several times a day').

Table 4: Operationalization of Media Use and Interpersonal Communication

	M (SD)
Issue-specific mainstream media use <sup>1</sup>	
of broadcast media (regardless if used offline or online) <sup>2</sup>	2.7 (1.1)
of local or regional newspapers (print, e-paper or online)	2.5 (1.5)
of national newspapers or magazines (print, e-paper or online)	2.2 (1.6)
Social media use in the context of the refugee debate <sup>1</sup>	
Facebook	2.0 (1.9)
user comments on online media items (no matter how people became aware of them)	1.7 (1.7)
other social media <sup>3</sup>	0.5 (1.0)
Interpersonal communication about refugees4	
with family members and close friends	3.8 (1.2)
with working colleagues and more distant friends	3.3 (1.5)
Interpersonal communication with refugees4	
in everyday situations (e.g., buying tickets)	1.1 (1.5)
in work-related situations	0.8 (1.6)
through public engagement (e.g., assisting in refugees' asylums, language classes)	0.6 (1.3)
through close personal contact (e.g., invitations, trips)	0.4 (1.1)

Notes. ¹Mean (M) and standard deviation (SD) on a 6-point scale of 0 'never', 1 'less than once a week', 2 'about once a week', 3 'several times per week', 4 'daily', 5 'several times a day'; ²Index of three items (public broadcast, private broadcast and radio); ³Mean (M) and standard deviation (SD) on a 7-point scale of 0 'never', 1 'less than once a month', 2 'about once a month', 3 'about once a week', 4 'several times per week', 5 'daily', and 6 'several times a day'; ⁴Index of two items (Twitter and YouTube)

#### Analysis strategy

To test our research model and the hypotheses, a structural equation model (SEM) was calculated (maximum likelihood estimations) by using the Analysis of Moment Structures (AMOS) statistical software program. With this analytical approach, it is possible to analyze complex relationships between the variables and estimate both direct and indirect effects. Ideally SEMs are applied for rigid empirical testing of elaborated theoretical models. If such models are not available, SEMs can also be used to develop a model adjusting the specifications to the available data. However, it must be noted that the second approach is rather explorative in terms of revealing unexpected relations by optimizing the model due to using actual data instead of testing the theoretical suppositions. Taking into account that just the basic assump-

tions of the hostile media approach – specified in Hypotheses H1a and H1b – are well proven, we decided to combine the two approaches. As a starting point, we specified a model that contained all the paths postulated in our hypotheses (see Figure 1). In addition, we added two control variables - political orientation and education. Furthermore, we assumed that all independent variables specified in Figure 1 and the two control variables are correlated. However, the results for this model indicated that it was not adequately specified. Several of the assumed effects turned out to be not significant, the indicators of model fit were unsatisfactory, and the obtained modification indices indicated that some important relationships between the variables in the model are missing. Based on these findings, we improved the model in several iteration loops until we obtained the final model presented in Figure 2. The model only contains significant effects; according to the modification indices, the model does not require any further adaptation, and all indicators of model fit show that it is specified in an adequate way. The relevant correlations between the independent variables are summarized in Table 5. Furthermore, it should be mentioned that a strong negative correlation exists between the negative and the positive attitude measures. Although this is not surprising, we still decided to differentiate the two concepts, as we were interested in discovering whether perceived threat or perceived benefit had stronger effects. However, this decision made it necessary to introduce a correlation between the error terms of the attitudes to obtain a good model fit. It is important to notice that the path coefficients remained almost unaffected by the introduction of this constraint (Table 5).

#### **Findings**

The basic hostile media hypothesis describing the relationship between attitudes and perceived media bias was specified by H1a and H1b. Both hypotheses were confirmed by the data. However, the findings indicate that the *negative attitudes* have a much stronger effect than the *positive* ones. The fact that people perceive refugees as a threat has a strong impact on the *perception of hostility* (positive bias) in the media, while variance with respect to the presumed benefits has a considerably lower effect. Also, H2 which depicts the effect of the *perceived intensity of media coverage on contested aspects of the refugee issue* on hostility perceptions was confirmed by the data: The higher the *perceived amount of coverage*, the stronger the *perceived negative bias*. While the first three hypotheses were confirmed, support for the others was weak. All hypotheses, except one, specifying the impact of media use and interpersonal communication on hostile media perceptions must be rejected. Only the presumed positive effect of *traditional media use* (H4a) was confirmed by the data. Nevertheless, this effect was also rather small.

perceived perceived perceived perceived economic threat cultural threat political personal threat societal threat orientation .62 .88 .89 .45 societal assimilation education negative attitudes: (high) -.24 refugees perceived economic impacts as threat -.09 .48 broadcast perceived intensity government decisions of coverage on contested aspects refugee-related .70 .11 cultural impacts of the refugee issue .70 mainstream local newspaper media use .66 .63 peacefully living together .23 national newspaper .49 Germans' attitudes -.19 .63 Facebook .12 social media use .77 societal assimilation .80 in the context of user comments the refugee issue -.42 .19 .61 economic impacts other social media .25 perceived government decisions media bias everyday situations ranging from negative .77 bias (-2) to positive cultural impacts .89 -.16 bias (+2) positive attitudes: .88 civic engagement refugees perceived .15 interpersonal .89 peacefully living together as benefit communication .64 with refugees work-related context .67 Germans' attitudes .79 private context perceived perceived perceived perceived cultural benefit personal benefit societal benefit economic benefit

Figure 2: Results of the structural equation model

Notes: GFI=.914; AGFI=.898; NFI=.908; CFI=.934; RMSEA=.048

Indeed, the findings in Figure 2 reveal that the communication variables have no direct impact on the hostile media perception. However, at the same time, the results depict some indirect effects of media use and interpersonal communication (Table 5) mediated through attitudes and the perceived intensity of media coverage: The intensity of social media use leads to the perception of a higher amount of coverage on contested aspects of the refugee issue and to more negative attitudes about refugees. In contrast, the positive impact on positive attitudes is triggered by interpersonal communication with refugees. Those who frequently talk to refugees have a more positive image. Differences in the amount of interpersonal communication about the refugee topic had neither a direct nor an indirect effect. That is why this factor was removed from the model. Also, the two control variables – education and political orientation – had no direct, but did have indirect effects on hostile media perception (Table 5). The negative attitudes towards refugees were more pronounced under the lower educated and the political right-wingers, while positive attitudes were expressed predominantly by the higher educated people and those with a leftist political orientation.

Moreover, we predicted direct effects of communication behaviors on people's hostile media perceptions (H3 and H4a to H4d). These hypotheses were in particular based on the assumption that large groups in the population share the populist critique of the media. Apparently, as these direct effects have proven to be almost nonexistent, these perceptions were not as dominant as we presumed. Just the use of mainstream media showed the predicted impact, albeit small. In any case, media use and interpersonal communication influenced people's attitudes towards refugees at least slightly. A possible explanation for these minor findings is probably the fact that just the amount of usage and communication was considered but not the content or the tendency of the messages. Without considering the content, any effect of media usage is just plausible if the underlying assumption of a general conformity in media coverage is true. This suspected homogeneity was strongly criticized by the right wing populists. At least the observed effects do not support this notion.

Table 5: Summary of Direct and Indirect Effects and Correlations

standardized direct effects			ß	p
political orientation (right)	$\rightarrow$	negative attitudes toward refugees	·45	<.001
education (high)	$\rightarrow$	negative attitudes toward refugees	24	<.001
mainstream media use	$\rightarrow$	negative attitudes toward refugees	09	<.05
social media use	$\rightarrow$	negative attitudes toward refugees	.11	<.01
political orientation (right)	$\rightarrow$	positive attitudes toward refugees	42	<.001
education (high)	$\rightarrow$	positive attitudes toward refugees	.19	<.001
interp. communication with refugees	$\rightarrow$	positive attitudes toward refugees	.15	<.001
positive attitudes toward refugees	$\rightarrow$	perceived intensity of media coverage	.25	<.001
social media use	$\rightarrow$	perceived intensity of media coverage	.23	<.001
negative attitudes toward refugees	$\rightarrow$	perceived hostile media bias (positive bias)	.49	<.001
positive attitudes toward refugees	$\rightarrow$	perceived hostile media bias (positive bias)	16	<.05
perceived intensity of media coverage	$\rightarrow$	perceived hostile media bias (positive bias)	19	<.001
mainstream media use	$\rightarrow$	perceived hostile media bias (positive bias)	.12	<.001
standardized indirect (mediated)	effects		ß	
interp. communication with refugees	$\rightarrow$	perceived intensity of media coverage	.04	
political orientation (right)	$\rightarrow$	perceived intensity of media coverage	10	
education (high)	$\rightarrow$	perceived intensity of media coverage	.05	
mainstream media use	$\rightarrow$	perceived hostile media bias (positive bias)	04	
social media use	$\rightarrow$	perceived hostile media bias (positive bias)	.01	
interp. communication with refugees	$\rightarrow$	perceived hostile media bias (positive bias)	03	
political orientation (right)	$\rightarrow$	perceived hostile media bias (positive bias)	.31	
education (high)	$\rightarrow$	perceived hostile media bias (positive bias)	16	
correlations			r	p
political orientation (right)	$\leftarrow  \rightarrow$	education (high)	12	<.001
mainstream media use	$\leftarrow  \rightarrow$	social media use	.59	<.001
social media use	$\leftarrow  \rightarrow$	interpersonal communication with refugees	.39	<.001
mainstream media use	$\leftarrow  \rightarrow$	interpersonal communication with refugees	.27	<.001
education (high)	$\leftarrow  \rightarrow$	interpersonal communication with refugees	.13	<.001
social media use	$\leftarrow  \rightarrow$	political orientation (right)	.08	<.05
error (negative attitudes)	$\leftarrow  \rightarrow$	error (positive attitudes)	81	<.001

#### **Discussion**

The findings reveal that the German population is strongly divided in opposing opinion camps concerning the refugee issue. One the one hand, we can observe a strong political conflict between the political right and left. However, because of the remarkable effects of education, there also seem to be conflicts between different strata of society. The refugee debate is obviously so heated that many people question the neutrality of the media in the controversy. In particular, the strong indirect effect of political orientation on hostile media perceptions underpins this argument. The distrust in independent and neutral media coverage on political issues is a serious threat for democracy as the media play a crucial role for social integration and the peaceful political process. Especially those with negative attitudes perceive the media as hostile against their opinions in terms of covering contested aspects of the issue too positively. However, the intensity of media use also influences the perceived bias albeit just a little: The more people rely on traditional mass media, the more they perceive them as positively biased, playing

down the existing problems.

What many observers and commentators of the public debate already suspected – that social media might exacerbate the situation – was supported by our data. The frequent users of social media have more negative attitudes towards refugees. At the same time, frequent users of social media are also more aware of the amount of coverage on the topic which, in turn, reduces the perceived positive bias. Taken together, the indirect effect of social media use on hostile media perceptions is rather small (Table 5). Nevertheless, our findings provide the first empirical evidence that it is worthwhile to consider the effect of social media use on the hostile media phenomenon more in depth in future research.

Interpersonal communication *about* refugees has – in contrast to our expectations – no impact, neither on the attitudes nor on the media perceptions. Taking into account that most interpersonal networks are predominantly homogeneous (Boomgaarden, 2014), this might be an explanation for the absence of effects. If people with negative attitudes predominantly speak with like-minded individuals and those with positive attitudes do the same, both bias perceptions will be intensified and the effects will equalize each other. Thus, this might be the reason why no effects could be observed. The outcome is different in the case of people talking *to* refugees. Direct interpersonal communication strengthens positive attitudes, but it does not affect negative ones. To identify the effects of interpersonal communication *about* refugees, the dependent variable has to be modified: Not the direction of bias but the intensity of perceived bias must be investigated, no matter the direction. This will be a task for further research.

In this study, the perceived amount of coverage was introduced as an additional indicator of bias. The refugee issue was obviously very prominent in most of the media in Germany. Nevertheless, many people had the impression that some aspects of the issue were downplayed. The perceived avoidance of contested aspects has an impact on media hostility: if people have the impression that disputed aspects are covered only occasionally, they criticize the media for being too positive. These findings show that further research on hostile media perceptions should not be limited to perceived bias, but should also take into account how people evaluate the intensity of coverage, and whether they have the impression that the media is intentionally silencing or downplaying aspects of a controversy.

One limitation of non-experimental hostile media research is that researchers normally do not know how the media cover the topic, and if the public's criticism is at least to some extent justified. Therefore, further research should combine content analysis and survey data. Moreover, to understand the formation as well as the possible changes of people's bias perceptions, longitudinal studies are needed. Particularly in the context of long-lasting public controversies, issue-related political decisions (e.g., new asylum laws) and events (e.g., attacks on immigrant housing) might influence the focus of the issue-related media coverage

fundamentally. In such a situation, cross-sectional studies provide only a snapshot. For example, this study was carried out just one month after the Cologne incidents (in which groups of foreigners harassed young women in front of the central train station on New Year's eve), which at least in the perception of the researchers had changed the tone of the media coverage considerably. To investigate if these changes are also observed by the public and how these perceptions might influence the evaluations of the media, a longitudinal approach is needed. Finally, it would be necessary to determine what people really expect from the media in covering the refugee topic. In the case that people want the media to be biased in their respective direction, any neutral media coverage will be perceived as biased. In this scenario, the accusation of bias cannot be avoided; quite the contrary, an accusation of bias from both sides could be interpreted as an indicator of objectivity and excellent journalism.

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