Visual Portrayals of People in Need:

The Impact of Refugee Depictions on Compassion and Support for Humanitarian Aid

by

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Abstract

As conflicts flare around the world, images of refugees are a familiar presence in Western media. Drawing on existing accounts of refugee imagery, and on previous research on compassion and on Moral Foundations Theory, we demonstrate how refugee depictions that vary in terms of their sympathy framing influence public opinion, using three survey experiments in Sweden, the US, and UK, with 25 unique images taken from international media coverage of the Syrian refugee crisis and over 4,500 combined respondents. We find that ideology has a strong moderating effect on the impact of refugee visual imagery: whereas liberals are similarly sympathetic to refugee depictions, irrespective of the manifest vulnerability of those depicted or how they are pictured, compassion responses among conservatives vary with the specific visual frame presented. Moreover, compassion mediates the effect of visuals on right-wing support for refugee aid, particularly when conservatives are shown images of individual children refugees as opposed to images of groups of adults. We conclude by discussing the implications for the editorial selection of news photographs of refugees, as well as the need for further research into the role of images in shaping responses to humanitarian crises across different cultural contexts.

Keywords: Visual communication; refugee depictions; compassion; humanitarian aid; political ideology; survey experiment; Syrian refugee crisis.

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Over the past few decades, ample evidence has mounted that news visuals, especially facial displays of individuals, convey social and motivational information to viewers that facilitate rapid processing and integration into memory while influencing attitudes and behavior (see reviews by Dumitrescu, 2016; Fahmy & Alkazemi, 2017). Besides impacting emotional and evaluative responses to pivotal moments, images of people ensnared in critical events can shape support for related policies (e.g., Zillman, 2006). When public assistance or humanitarian aid are seen as possible remedies, a chief consideration is the demonstrated vulnerability of those in need, whether welfare recipients or refugees in search of a new home—a characteristic that is most immediately conveyed in the forms of visual depictions published or broadcast in media.

Cross-country research provides overwhelming evidence that the visual portrayal of refugees and migrants in the news is dominated by group shots, mostly of adult men, oftentimes in opposition to authorities (e.g., Bleiker, Campbell, Hutchison & Nicholson, 2013; Wilmott, 2017; Zhang & Hellmueller, 2017). Individual refugees with manifested vulnerability are, comparatively speaking, much less visible. This imbalance in visual focus is credited with reducing public support for humanitarian aid on at least two accounts. First, group visual portrayals are assumed to throttle the possibility of compassion for the victims (Bleiker et al., 2013). Second, because compassion is greater for vulnerable victims (Goetz, Keltner, & Simon-Thomas, 2010), the depiction of adults in no obvious distress contributes to unsympathetic portrayals because it is not immediately apparent why they need assistance. Thus, both the social context (group vs. individual) and the manifested vulnerability of the refugees depicted are seen as altering the public's response by changing the representation of refugees' genuine need.

There is, however, to date, limited evidence about viewers' perceptions of these visual depictions, and of the mechanism underpinning the effect of such refugee imagery on public

assistance attitudes. While previous studies suggest that *individual* children generate higher support than *groups* of children (e.g., Kogut & Ritov, 2005; Västfjäll, Slovic, Mayorga, & Peters, 2014), there is little evidence about the impact of exposure to images of *adult* refugees (in groups or by themselves); or how their effect compares to images of *children*. Moreover, despite left- and right-wing individuals exhibiting different levels of sensitivity to the suffering and the need for care of others (e.g., Graham, Haidt, & Nosek, 2009), the moderating role of viewer ideology on the influence of refugee visuals remains largely unexplored.

In this paper, we build on multiple lines of research to address these lingering questions. We begin by reviewing the evidence of the visual construction of refugees in the news, and of the frequency and expected impact of the most prominent visual frames (i.e., the individualized/collective focus of the shot and the degree of manifest vulnerability of those depicted). To facilitate the comparison of refugee images with different visual composition, we merge these visual dimensions of media refugee depictions onto a visual sympathy framing continuum. Reflecting previous accounts, individualized portraits of clearly vulnerable refugees (e.g., images showcasing individual children) fall at the highly sympathetic framing end of this continuum, while collective shots of individuals with no manifest vulnerability (such as images of groups of adults) fall at the unsympathetic extreme; individualized depictions of non-vulnerable individuals, or collective shots of vulnerable refugees fall in between these two poles.

We draw on previous Moral Foundations Theory research (Feinberg & Willer, 2013, 2015; Graham et al., 2009; Haidt, Graham, & Joseph, 2009) to derive a set of expectations about the effects of refugee visual sympathy framing on viewers with different ideological outlooks, which we test in three survey-experiments in Sweden, the US and UK. The experiments have a cumulative *N* of about 4,500 participants and utilize 25 different refugee depictions in total, in

which we operationalize both the individualized/collective focus of the shot, and the manifested vulnerability of those depicted (using the refugees' age category, and in one experiment, their manifest distress). The results show that, contrary to our expectations, group shots or images of adult refugees in no apparent distress do not always trigger lower compassion levels. Our central finding is that ideology has a strong moderating effect on the impact of refugee imagery. Whereas liberals (left-leaning) appear immune to the (un)sympathetic visual framing of refugees, among right-leaning participants compassion for refugees increases markedly upon exposure to highly sympathetic portrayals (i.e., images of individual children) compared to unsympathetic ones. Moreover, among conservatives, compassion also plays a mediating role for the effect of refugee visuals on support for humanitarian aid. We conclude by discussing the implications for the editorial selection of news photographs of refugees, as well as the need for further research into the role of images in shaping responses to humanitarian crises across different cultural contexts.

Literature review

Why images in the news matter

Images are ubiquitous and increasingly influential in today's multiplatform news environment (Bucy & Grabe, 2007; Grabe & Bucy, 2009; see also, Dumitrescu, 2016). As representations of events, news images encapsulate both social and contextual meaning. Depictions of individuals are particularly influential in conveying emotional state and motivational intent (Stewart, Salter, & Mehu, 2009). Based on very limited exposure times, viewers can infer personal characteristics or trait attributions from still photographs of politicians (e.g., Hall, Goren, Chaiken, & Todorov, 2009) as well as make behavioral inferences about how they might act in different situations (Swigger, 2012). Moreover, visual depictions of emotionally expressive individuals in the news have been shown to impact viewers' opinions about the issues these individuals are associated to,

through a process of exemplification (e.g., Zillmann, 2006). Emotional activation has been evidenced by numerous political communication studies (e.g., Dumitrescu, 2006; Brader, 2005; Powell, Boomgaarden, De Swert, & de Vreese, 2015) as a mediator of the visual effects on attitudes and behaviors.

Media portrayals of refugees

As previously noted, research conducted across different national contexts reveals a proclivity towards group depictions in media portrayals of refugees and migrants. In refugee crises predating the Syrian war, Bleiker et al. (2013) found that single-person depictions made up only 6% of images published in Australian news media, while groups of refugees ranging in size from four to more than fifteen persons constituted fully two-thirds of images in news coverage. A similar preponderance of group portrayals was reported in Germany, the US and UK with respect to the Syrian crisis (see Wilmott, 2017; Zhang & Hellmueller, 2017).

Other studies highlight the limited variation in the gender and age composition of refugee portrayals: Wilmott (2017) finds that more than two thirds of refugee images in British media coverage of the Syrian crisis were exclusively or primarily of adult men. Men were also more likely to be portrayed in groups—and to be depicted in conflict with authorities (Wilmott, 2017, p. 77). Both visual choices have surfaced as potentially influencing attitudes towards refugees in general. The visual focus on adult males has been picked up by far-right leaders as a justification of their opposition to humanitarian aid (e.g., Clavel, 2015). Group portrayals, in turn, are regarded as a key element underpinning the largely negative portrayal of refugees in the news because “with every additional person, the compassionate effect [of generating public sympathy] is said to decrease” (Bleiker et al., 2013, p. 404).

In contrast to these portrayals, images that highlight the human tragedy of refugee movements have a different visual composition. These portrayals tend to focus on vulnerability and suffering. Kędra and Sommer (2018, p. 42) find that “in the visual reports of war and disaster, the vulnerability of children is a widely utilized category.” Children epitomize the most compelling category of war victim, especially because they are not in control of their surroundings or fate and are perceived to be incapable of faking injury and distress (see Höijer, 2004). In a study of online media in the UK, images of children were found to comprise roughly 15% of news coverage of the Syrian crisis (e.g., Wilmott, 2017). Sympathy framing sometimes extends to depictions of adults, with one comparative study of US and German media coverage of the Syrian crisis finding that roughly half of all refugee visuals focused on their lives and suffering (Zhang & Hellmueller, 2017).

A visual framing continuum of refugee portrayals in news

Intrinsic to the analysis of refugee portrayals in the news is the common assumption that, depending on the manifest vulnerability of those depicted (children, as opposed to adults, in visible distress or not), and *how* they are portrayed (as individuals or in groups), these depictions can influence public perceptions of the urgency of humanitarian need and, consequently on what should be done to alleviate their condition. We systematize this assumption by combining these two dimensions into a single continuum of visual sympathy framing of refugee portrayals (see Figure 1). Images at the unsympathetic end of the continuum depict refugees with no manifest vulnerability, using a collective camera focus, while the sympathetic end of the continuum is populated with individualized visual portrayals of vulnerable individuals.

[Figure 1 here]

Our primary aim lies in determining the extent to which the image types at the opposite ends of this continuum generate—as expected—different public reactions, both emotionally and for the willingness to support refugee assistance policies. At the same time, we also aim to provide a better understanding of how refugee visuals that have an individual focus, but portray individuals with no apparent vulnerability, or images that portray vulnerable victims from a collective perspective affect viewer responses compared to images that are either highly (un)sympathetic.

The moral underpinnings of decision-making and its ideological bases

To theorize how individuals may react to the signals of vulnerability and need encoded in media portrayals of refugees, we draw on Moral Foundations Theory (hereafter MFT; Haidt et al., 2009). MFT posits that people possess a set of “underlying moral intuitions, or emotional sensitivity to certain types of social behaviors” (Tamborini, 2013, p. 45). When observing these behaviors, a sense of moral affirmation or transgression may occur in observers, generating positive or negative affect in response, even if these sentiments cannot be explained rationally.

The need for care and attention for those who are suffering is one of the most important foundations of moral decision-making (Haidt et al., 2009). Violations of this principle are often accompanied by feelings of compassion (Landmann & Hess, 2018), an emotion that “arises in witnessing another’s suffering and that motivates a subsequent desire to help” (Goetz et al., 2010, p. 351). Compassion and its close relative, empathic concern, are prosocial emotions. Empathic concern has been shown to enhance altruistic motivations in helping those in need (Batson, 2016), particularly for victims who are seen as “weak or helpless” (Davis, 2015, p. 283). At the same time, previous research also finds that compassion fades with the addition of

victims, even if they are identified as highly vulnerable (e.g., Västfjäll et al., 2014). Thus, we predict that:

H1: Exposure to highly sympathetic visual frames (i.e., images of individual children, whether in manifest distress or not) should elicit greater compassion for refugees than exposure to highly unsympathetic visual frames (such as of groups of adults in no distress).

At the same time, previous MFT research provides ample evidence that sensitivity to violations of moral norms varies with an individual's left-right (or liberal-conservative) ideological orientation (Graham et al., 2009; Haidt et al., 2009). In general, liberals are more sensitive than conservatives to concerns about care and suffering, while conservatives are more susceptible to other moral violations, such as those endangering authority or purity (Haidt & Graham, 2007). The moderating role of ideology in shaping moral decision-making has been shown in relation to numerous issues ranging from environmental causes (Feinberg & Willer, 2013) to economic and social issues (Day, Fiske, Downing, & Trail, 2014; Feinberg & Willer, 2015). In the case of refugee depictions, because liberals are concerned with protection against harm, variations in the visual sympathetic framing of refugee portrayals should not matter much. Conservatives' sensitivity to the predicament of others should, however, be heightened by exposure to more sympathetic frames. Thus, we predict that:

H2: Ideology will moderate the effect of exposure to images of highly sympathetic portrayals (such as those of individual children, in distress or not) on compassion, when compared to highly unsympathetic portrayals.

In light of previous evidence pointing to the mediating role of emotion in driving the influence of visuals on related behavior (e.g., Powell et al., 2015), we also expect that:

H3: Compassion will mediate the influence of highly sympathetic refugee depictions on support for humanitarian aid.

Finally, in the absence of clear theoretical guidance as to the influence of images in between the two extremes of our framing continuum, we ask:

RQ. Compared to the two poles of the sympathy framing continuum, do viewers respond with different levels of compassion to images of individualized portraits of non-vulnerable refugees or to collective portrayals of vulnerable refugees?

Method

To obtain a broader, cross-cultural picture of visual influence, we conduct three survey experiments across Sweden, the US and UK. According to UN data, between 2015 and 2017 (corresponding to the period of our studies), about 30,000 Syrians resettled in Sweden, about 3,000 in the US, and under 1,000 in the UK.³ Compared to the two Anglo-Saxon countries, therefore, Sweden has been at the forefront of the Syrian refugee resettlement effort, and Swedish media coverage of the refugee issue has been significantly less negative than in other European nations (Berry, Garcia-Blanco, & Moore, 2016; De Cock et al., 2018).

Visual stimuli: operationalization of vulnerability. While vulnerability can be conveyed in a variety of ways, we operationalize it using the age and the facial expressions of distress of the refugees. Children are recognized in media coverage research as the epitome of defenselessness (e.g., Kędra and Sommier, 2018); facial expressions, conversely, can instantly convey a person's suffering, due to their automatic processing (e.g., Stewart et al., 2009).

³ Source: <https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates17.asp> (Accessed 15 October 2020)

Visual stimuli: validation study. We began by selecting 30 images from the online editions of major international news providers, out of which six depicted a single child, four depicted a single child in obvious distress, seven depicted a group of children, four depicted a single adult male, three depicted a single adult male in obvious distress, and six depicted groups of adult men.⁴

Two hundred and seventy four US participants (M age = 37.25, SD = 10.74; 52.6% female; 51.5% Democrat, 22.3% Republican; 60% liberal, 25% conservative) were recruited through Amazon's Mechanical Turk to rate the images on several evaluative dimensions. Each participant in the validation study evaluated five randomly selected images, presented in random order.

To validate the group dimension, participants were first asked “to click on what stands out most” in each image. The resulting visual heat maps revealed that images classified as depicting one individual generated a dominant focus (centered on the person's face), while images classified as group-based showed split focus between various individuals; two images performed poorer on this classification and were removed from the sample.

To validate the vulnerability manipulation, we first asked participants about the age of those depicted, using the question: “Looking at the individual(s) who are the focus of this image, how old would you say they are? Please write in your best estimate below.” The analysis of the open-ended responses showed that individuals in the adult refugee images were correctly identified as adults (over 18), and individuals in the children refugee images were correctly identified as children (10 years old or younger). Respondents then rated the strength of the

⁴ The images were collected from the online editions of BBC, *Le Monde*, *The Guardian*, *Independent*, *The New Yorker*, and *Newsweek* at the peak of the European refugee crisis in fall 2015 and spring 2016. These news sources were selected in connection with a separate media content analysis project examining visual coverage of the Syrian conflict.

refugees' emotional displays on scales for five discrete emotions (distress, anger, anxiety, hope and happiness). For images selected to represent obvious distress, all but one were rated as showing high distress (with the mean strength of 2.5 or higher on a 0-3 scale) and very low positive emotion (with a mean of 0.5 or lower on the same 0-3 scale). Conversely, for those images chosen to not show obvious distress, all but two of them received low to moderate scores on negative emotion (with means of 2 or less) and low scores on positive emotion (with means of 1 or less). Finally, respondents also rated the extent to which those depicted could be described as "in need of protection" on a scale of 1 (*Not at all*) to 5 (*Extremely well*). *t*-tests showed that children in our selected images, irrespective of their distress display, were deemed in greater need of protection than adults displaying no distress, and received similar scores as adults displaying obvious distress.

In light of these results, we retained 25 images out of our initial sample as good exemplars covering the different image categories on the visual sympathy framing continuum. The final pool contained five images depicting groups of adults, three images of individual adults in no distress, six images of groups of children, three images of adults in distress, five images of individual children in no distress, and three images of individual children in distress.

Main studies: cross-country communalities

The three experiments in this study shared the same study flow, set-up of the visual manipulation, and wording of the emotional response measures (translated in the Swedish case).

Study flow. In each administration, participants started the study by reading a short text reminding them that, due to conflicts around the world, many individuals have become refugees in different countries. For each participant, *one* of the validated images was introduced as an example of those displaced. To emulate the visual exposure conditions they would normally

encounter in a real-life media setting, participants were allowed to spend as much time as they wanted on this page. After clicking ‘Continue’, participants were asked about the emotional response evoked by the refugee issue and then indicated their support for humanitarian aid. In each administration, the questionnaire was programmed as forward-only.

Visual manipulation set-up: Multiplicity of images per experimental group. Images of refugees are ultimately idiosyncratic, as those depicted may affect viewers due to a unique or identifying look. Moreover, information in the background may make some images more effective in arousing compassion responses than others. To maximize the possibility of detecting effects associated with the *type* of refugee depictions, rather than the idiosyncrasies of individual photographs, in each country we included between 1 and 3 different images to represent each visual framing category (see below for details, and Appendix A for the images included in each study). Participants had an equal chance of seeing any one image, and those who saw photographs using the same visual framing were treated as part of the same experimental group.

Emotional response. Following presentation of the refugee image, participants were asked: “When you think about those who come from conflict areas to ask for refugee status in [COUNTRY], how do you feel? People can have complex emotions on these matters, so please consider each specific feeling below and indicate to what extent you experience it.” Respondents self-reported how much compassion and empathy they felt using a 5-point scale (1 = *Not at all*, 5 = *Extremely*), as part of a larger battery of emotions. We combine the two variables into an overall compassion measure (Sweden: $\alpha = 0.93$, $M = 3.80$, $SD = 1.11$; US: $\alpha = 0.84$, $M = 3.31$, $SD = 1.13$; UK: $\alpha = 0.90$, $M = 3.15$, $SD = 1.07$).

Data collections by country

To provide a more stringent test of visual effects, we rotated the particular images that participants were exposed to in different administrations, and adapted the humanitarian aid measures to reflect the actual refugee governmental support in each country at the time of the study. Below we describe these country-specific features in detail.

Sweden

Participants. A national sample of Swedish citizens ($N = 1,375$, 53.6% male, mean age 47.1, $SD = 14.6$) participated in the study as part of a larger survey fielded by the Laboratory for Public Opinion Research at the University of Gothenburg from 28 September to 16 October 2016.

Visual treatment. The experimental treatment consisted in four image categories with none depicting refugees in obvious distress. At the two extremes of the visual sympathy framing continuum we had ‘Group of adults’ ($n = 337$) and ‘Individual child’ ($n = 351$). We included two additional categories, ‘Individual adult’ ($n = 341$) and ‘Group of children’ ($n = 346$), as exemplars of images falling in between the two sympathy extremes. In each category, respondents had an equal chance of seeing any one of two images, with all images allocated randomly.

Support for humanitarian aid. Willingness to favor or oppose “offering financial support to cover housing and food for those who have been granted refugee status in Sweden” was measured on a 7-point scale (1 = *Favor a lot*, 7 = *Oppose a great deal*). We reverse code the measure so that higher numbers indicate greater support ($M = 4.77$, $SD = 1.95$).

United States

Participants. The survey was administered by SSI to an internet panel of adult citizens living in the northeastern United States from 14 December 2016 to 14 January 2017 ($N = 1,185$, 41.27% male, median age group: 35-44).

Visual treatment. The experimental treatment consisted in four image categories: ‘Group of adults’ ($n = 160$), ‘Individual child’ ($n = 451$), ‘Group of children’ ($n = 425$), and ‘Individual adult’ ($n = 149$). While the categories matched those in Sweden, to increase confidence in the robustness of any empirical difference found in visual effects, we selected new images from our pre-tested pool. Moreover, due to the mechanics of this particular administration, each adult category had 1 associated image, while the child categories had 3 associated images each.

Support for humanitarian aid. Participants answered two questions: “Do you favor or oppose offering financial support to those who have been granted refugee status in the US?” and, separately “...to those waiting for their refugee applications in the US to be processed?” (1 = *Oppose a great deal*, 7 = *Favor a great deal*). We combine these measures into a new variable ($\alpha = 0.91$, $M = 3.54$, $SD = 1.73$).

United Kingdom

Participants. The study was administered by YouGov to a national sample of UK citizens on 15-17 May 2017 ($N = 2,207$, 44.7% male, mean age 47.7, $SD = 16.8$).

Visual treatment. In this administration we introduced distress as an additional element in the visualization of vulnerability. Respondents were randomly assigned to one of four image categories: ‘Group of adults’ ($n = 604$), ‘Individual child in obvious distress’ ($n = 529$), ‘Individual adult in obvious distress’ ($n = 548$) and ‘Group of children’ ($n = 526$). Each treatment group had three associated images. Nine of the 12 images were new with respect to the other country studies; the remaining three were also shown in the US data collection.

Support for humanitarian aid. Participants were asked: “The British government currently provides support to people who have been granted refugee status in the United Kingdom, and who are in need. This support takes the form of access to housing and healthcare,

and money for food and childcare. On a scale from 0 (*Strongly oppose*) to 10 (*Strongly support*), to what extent do you oppose or support the British government providing this sort of support?"

The original 0 to 10 scale was recoded to range from 1 to 11 ($M = 6.62$, $SD = 3.17$).

Moderator: Ideology

In every country, ideology was measured as part of a demographic battery at the end of the study, using a Left-Right scale in Sweden and the UK, and a Liberal-Conservative scale in the US.⁵ In the analyses, we use Left/Liberal and Right/Conservative interchangeably.

Table 1 presents the variable distribution in each country study. Detailed variable distributions for each specific image in each study are given in Appendix A.

[Table 1 about here]

Results

Simple effects (H1, RQ). We begin with a simple analysis of the relationship between exposure to the visual treatment and self-reported compassion for refugees. H1 predicts an increased in reported compassion as we move from highly unsympathetic to highly sympathetic depictions (i.e., when comparing images of groups of adults to images of individual children), while the RQ enquires whether viewers respond with different levels of compassion to images of children and adults that vary in their degree of sympathetic elements. To examine these effects by country, we run a regression analysis, bootstrapped over 1,000 replications, with compassion

⁵ In Sweden and the UK, ideology was measured on a 0-10 scale, while in the US it was measured on a 1-5 scale. To simplify the presentation of our results, we transform the Swedish and UK ideology variables into 5-point variables, using the same rule: {0,1} = extreme left (1), {2,3} = moderate left (2), {4, 5,6} = center (3), {7,8} = moderate right (4), {9,10} = extreme right (5). This transformation does not alter the results (see Appendix E).

as the dependent variable and the experimental treatment categories as independent variables. In each case, the reference category is images of groups of adults; therefore, the resulting coefficients indicate the extent to which other image types differs from the effect of this highly unsympathetic visual frame. The results, with normal and bootstrap-corrected confidence intervals, are reported in full in Appendix B.

The analyses offer limited support for H1. The models indicate a statistically significant increase in self-reported compassion for refugees following exposure to images of individual children in all countries. However, in Sweden, the overall significance of the model fails to reach conventional significance levels ($p > 0.05$). In the US and the UK, the model is statistically significant, but the adjusted R -square values are around 1%. Moreover, the size of the effect of seeing images of individual children as opposed to groups of adults is small in the UK (Cohen's $|d| = 0.19$) and small to moderate in the US (Cohen's $|d| = 0.30$, see Appendix B for full analysis and confidence intervals). As for the other image categories, the low explanatory power of the models prevents us from drawing any firm conclusions at this stage.

The moderating influence of ideology on compassion (H2, RQ)

Moving to H2, we run the same model as for H1 with the addition of ideology as a moderator of the experimental treatment effects. As in the previous model, the reference category is images of groups of adults. Figure 2 graphs the predicted margins by country, ideological position, and visual treatment condition, with bootstrap-corrected confidence intervals. The results (with bootstrapped standard errors over 1,000 replications and normal-based and bootstrap-corrected confidence intervals) are presented in full in Appendix C.

[Figure 2 about here]

Turning to H2, the interaction between ideology and exposure to highly sympathetic images (of individual children, whether in distress or not) is significant in all three countries. The hypothesis receives support. To better illustrate this trend, Figure 2 arrays our experimental conditions on the X-axis from the least sympathetic depiction (group of adults) on the left to the most sympathetic (individual child depictions) on the right. As the figure illustrates, ideology significantly influences the variation in response to the different visual frames. Whereas for liberals there is limited change in self-reported compassion across frame types, the level of compassion among conservatives rises steadily when moving from the least to the most sympathetic portrayal. Moderate and extreme conservatives in all countries react with significantly more compassion in response to images of individual children than to images of groups of adults. Effect sizes among conservatives are in the moderate range, with absolute values of Cohen's d of 0.43 in Sweden, 0.64 in the US and 0.35 in the UK (see full results in Appendix C).

Figure 2 provides further insight with respect to the compassion responses to sympathy framing of refugees among conservatives, informing our RQ. The results from the set of middle range images are country-specific. In Sweden, there is limited differentiation in response to groups of adults, individual adult or groups of children. The individual child category stands apart as garnering more sympathy (although the difference from groups of children and images of individual adults only approaches significance). In the US and UK samples, however, we observe a clearer differentiation by the victims' age. In both cases, as with images of individual children, images of *children in groups* elicit significantly more compassion than groups of adults among moderate and strong conservatives.

The mediating role of compassion (H3, RQ)

To examine the extent to which compassion evoked in response to images of individual children as opposed to groups of adults mediates support for humanitarian aid (H3), we test a moderated mediation model corresponding to Model 8 in Hayes (2013). In each of our three test countries, ideology is designated as a moderator and compassion as a mediator. The models are depicted in Figure 3 and the full results are available in Appendix D. To establish mediation, we expect to observe a significant indirect mediation effect (see Zhao, Lynch, & Chen, 2010). Figure 4 presents the significant indirect and total mediation effects of exposure to images of individual children as opposed to groups of adults.

[Figure 3 about here]

[Figure 4 about here]

As Figures 4 illustrates, there is a significant indirect effect in each country, but only for conservatives. Exposure to images of individual children (as opposed to groups of adults) leads to an indirect increase in moderate and strong conservatives' support for humanitarian aid of between 0.4 and 0.6 on the 7-point scale in Sweden, 0.3 and 0.4 on the 7-point scale in the US and between 0.6 and 0.9 on the 11-point scale in the UK (with coefficients and confidence intervals reported in Appendix D). The total effects only reach significance in the US and UK. Cohen's $|d|$ for conservatives in each country is 0.38 and 0.40 respectively, indicating a medium effect.

Looking to the other visual conditions, we observe that exposure to images of groups of children as opposed to groups of adults also has significant indirect effects on conservatives' aid attitudes (as mediated by compassion) in the US and UK. In both countries the magnitude of indirect effects for group portrayals is similar to that of images of individual children, but the total effects reach significance only in the UK (see Appendix D). There are no additional significant indirect or total effects in Sweden.

Discussion

Taken together, the results from this analysis yield several valuable insights into the effects of the visual portrayal of refugees by the news media across different national contexts.

Our results suggest three conclusions:

1. *The editorial selection of the refugee images in the media can affect right-wing viewers' outlook on the plight of refugees and desirability of humanitarian aid.*

The literature on media portrayals of refugees centers on the tendency of the news media to frame, sympathetically or unsympathetically, the vulnerability of people displaced by war and conflict. In this paper we provide empirical evidence that *a specific category of* viewers responds differently to the two extremes on either end of our sympathy framing continuum. In all three countries, right-wing individuals are more likely to express a higher level of compassion for refugees in response to images of an individual child (in obvious distress or not) than in response to groups of adults. Compassion mediates the relationship between seeing images of individual children and support for humanitarian aid. The fact that we (a) observe moderate effect sizes after exposure to just one image per respondent; (b) observe this effect with *different* visuals representing our two framing emphases across three countries; *and* (c) at a time when study participants will likely have been exposed to myriad images of refugees as the Syrian crisis was still under way, suggests that we provide a conservative test of such visual effects.

The finding that compassion plays a larger role in response to sympathy framing among conservatives and mediates right-leaning citizens' attitudes towards humanitarian aid suggests that variations in media depictions of refugees may have the capacity to bridge the ideological divide over humanitarian policy. If liberals react with equal compassion to all visual representations, but conservatives react more positively to images of children than to groups of

adult refugees, then the publication of more children affected by the crisis may help reduce the difference in humanitarian aid positions between those on the left and right of the ideological spectrum.

2. Perceptions of individual vs. group depictions of refugees merit further research attention.

Beyond differences found for sympathy framing between liberals and conservatives, these results offer two additional insights. First, in two out of three studies, the influence of seeing groups of children portrayed is similar to seeing images of individual child refugees. These results depart from previous studies showing significant differences in reactions to visuals of one child compared to groups of children (see Kogut & Ritov, 2005; Västfjäll et al., 2014). The similarity between groups of children and individual children in our US and UK studies could be due to a number of reasons in which our design differed from previous research. For one, we used many more images representing this type of depiction. As discussed, images are idiosyncratic; previous studies using just one set of visuals as stimuli leaves open the possibility that the effect could differ if respondents saw another set of images.

Moreover, the images we identified from international news coverage depicted the children in a close-proximity group. Previous studies obtained the largest difference in compassion and donations when the images of children were presented individually. Västfjäll and colleagues (2014) allude to the possibility that the compassionate effect for a group may be similar to that for individuals when members of the depicted group are perceived as related. While we did not specify any identifiable information in our studies, the images showing children next to each other may have fostered the perception of their closeness.

Second, we did not find that depictions of individual adults perform differently from groups of adults in any of our three data collections. This suggests that when it comes to adults the individual camera focus may not be sufficiently sympathetic to change attitudes, and that if a compassion response is stronger for an individual adult than for a group of adults, then it is due to their personal features, or to the particularities of their context. Either way, the results point to the need for additional research on the impact of images that share both sympathetic and unsympathetic elements in their framing of refugees.

3. The impact of refugee depictions should be considered across different national and cultural contexts.

While conservatives in all our studies exhibited a similar pattern of emotional reactions when exposed to images of individual children as compared to images groups of adults, the variation in responses to the other depictions, combining both sympathetic and unsympathetic features, suggests that the national context in which the studies were conducted may also play a role in shaping perceptions—and support for aid. To get a more accurate understanding of the visual framing of refugees, future studies should explore these cross-national and cross-cultural differences further.

As with all experimental research, the limitations of our study design should be noted. First, in each administration, images were accompanied by only a short introduction about the refugees' condition. In real life, the amount of text surrounding images varies, ranging from very little (such as when images appear on covers, or simply accompanied by the headlines) to longer text articles, which can provide a deeper contextualization of those depicted. Future studies should explore further the interaction between the visual sympathetic framing of the refugee images and the surrounding text.

Second, the design of our study precludes us from comparing the effect of the *same* photographs across countries—because the images were rotated and differed on a country by country basis. Instead, we chose to study the consequences of image *types*. Rather than a weakness, this choice reinforces the finding that the degree of sympathy framing matters and how refugees are visually presented in news accounts can have perceptual, emotional and, ultimately, policy consequences.

Third, we note that the cultural context may play a role in the evaluation, but our data were limited to three countries. In future iterations, adding more countries at the forefront of the refugee relief effort (e.g., Italy, Greece, Germany), as well as countries of varying religious orientation (e.g., Egypt, Turkey), should shed more light on the influence of cross-cultural factors.

Fourth, while the results suggest a strong effect of images of individual children among conservatives—our results cannot speak to compassion fatigue, as each of our participants was exposed to just one visual depiction. As news consumption in daily life likely involves a much higher volume of exposure to numerous images emanating from an international crisis, it could well be that this effect may change if more images of individual children were broadcast. Thus, it would be beneficial to estimate the effects of cumulative image exposure in future studies.

Finally, more nuanced aspects of refugee portrayals could be evaluated, such as variations in gender, the presence of religious symbolism, the display of extreme distress (through graphic images of dead or seriously injured refugees), and the impact of textual framing via the use of headlines, captions, or news narratives.

These noted shortcomings, however, do not take away from our main contribution, which is to empirically show that the choice of images in the coverage of humanitarian crises involving refugees bears notable consequences on the feelings of those who sit in the comfort of their own

homes in peaceful societies—conservatives especially—and the assistance they are willing to give to lessen the plight of distant others in need.

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Figure 1. A visual sympathy framing continuum of refugee portrayals in the news, based on the vulnerability of those pictured and the collective/individual shot focus.

Figure 2. The moderating role of ideology in compassion responses to refugee depictions in each country.

Note: Panel A: Sweden and US results. Panel B: UK results. Predicted margins with bootstrap-corrected confidence intervals (full results available in Appendix C).

Figure 3. Moderated mediation models.

Notes: In each model the reference category is group of adults. Only significant coefficients with bias-corrected bootstrapped confidence intervals are shown. Models computed with Stata 14 (full results available in Appendix D).

Figure 4. Estimated indirect and total effects of exposure to images of individual children as compared to images of groups of adults on support for humanitarian aid (mediated by compassion).

Notes: The top row graphs present the indirect effects. The bottom row graphs present the total effects. Panel A: Sweden study. Panel B: US study. Panel C: UK Study. Results based on the mediation models in Figure 3 (full results available in Appendix D).

Table 1. Variable distributions

Table 1. Variable distributions															
Variable (Scale)	Sweden														
	Full sample			By treatment group											
	M	SD	N	Group of adults			Individual adult			Group of children			Individual child		
				M	SD	N	M	SD	N	M	SD	N	M	SD	N
Compassion (1-5)	3.8	1.11	1372	3.68	1.37	336	3.85	1.15	341	3.8	1.1	344	3.85	1.04	351
Support for humanitarian aid (1-7)	4.77	1.95	1368	4.82	1.99	335	4.73	2	341	4.76	1.91	343	4.77	1.92	349
Ideology (1-5)	2.88	1.09	1203	2.86	1.1	294	2.92	1.13	296	2.91	1.07	309	2.82	1.09	304
Gender (Male=1)	0.54	0.50	1375	0.59	0.49	337	0.51	0.50	341	0.51	0.50	346	0.54	0.50	351
Age	47.27	14.50	1375	47.87	14.23	337	45.75	14.88	341	47.58	14.83	346	46.88	14.02	351
Variable (Scale)	US														
	Full sample			By treatment group											
	M	SD	N	Group of adults			Individual adult			Group of children			Individual child		
				M	SD	N	M	SD	N	M	SD	N	M	SD	N
Compassion (1-5)	3.31	1.13	1181	3.10	1.14	160	3.11	1.14	148	3.33	1.11	423	3.44	1.12	450
Support for humanitarian aid (1-7)	3.58	1.71	1181	3.49	1.84	159	3.49	1.65	149	3.45	1.64	423	3.76	1.75	450
Ideology (1-5)	2.95	1.01	1120	2.88	1.05	148	3.00	0.93	140	2.98	1.01	408	2.93	1.03	424
Gender (Male=1)	0.41	0.49	1185	0.45	0.50	160	0.36	0.48	149	0.44	0.50	425	0.40	0.49	451
Median age group*	35-44			35-44			35-44			35-44			35-44		
Variable (Scale)	UK														
	Full sample			By treatment group											
	M	SD	N	Group of adults			Individual adult in obvious distress			Group of children			Individual child in obvious distress		
				M	SD	N	M	SD	N	M	SD	N	M	SD	N
Compassion (1-5)	3.15	1.07	2,087	3.01	1.06	565	3.18	1.06	517	3.21	1.07	495	3.21	1.07	510
Support for humanitarian aid (1-11)	6.63	3.17	2,091	6.30	3.22	570	6.79	3.20	519	6.71	3.08	498	6.77	3.15	504
Ideology (1-5)	2.98	0.94	1,747	3.04	0.87	468	2.93	0.92	438	2.98	0.97	425	2.96	0.98	416
Gender (Male=1)	0.45	0.50	2,207	0.46	0.50	604	0.45	0.50	548	0.42	0.49	526	0.47	0.50	529
Age	47.81	16.92	2,207	48.05	16.62	604	47.00	17.13	548	47.60	17.00	526	48.56	16.98	529

Note. Age in the US was measured by a 6-point age group variable.