Putting a Human Face on Cold, Hard Facts:
Effects of Personalizing Social Issues
on Perceptions of Issue Importance

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This study investigates the influence of personalization (moving testimony from ordinary citizens) on reception of news stories about social issues. The data (N = 80) from this mixed-design experiment, collected at two time points, offer evidence that personalized news stories evoked greater feelings of empathy toward and identification with people affected by social issues, which in turn increased perceived issue importance. Personalization effects persisted over time. Moreover, path analyses revealed gender differences in reactions to personalization. The findings imply that a major goal of journalism—to advance civic engagement with social issues—could be served by personalized story formats.

Keywords: personalization, empathy, identification, gender, emotions

Traditional enlightenment-inspired conceptualizations of journalism peg the profession as a catalyst for informed citizenship in democratic systems. The changing media ecology, persistent decline in the size of traditional news audiences (Hanitzsch & Mellado, 2011; Pew Research Center, 2013; Robinson, 2011), and concerns about citizen apathy (Bennett, 2003; Strömbäck, 2005) are among the reasons to question the veneration of cold, hard facts as the way to engage citizens with the world they live in.

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Media researchers have produced important insights into how social issues become salient to the point of influencing participatory action (Bélanger & Meguid, 2008; Hillygus & Henderson, 2010). This area of research includes a long line of agenda-setting studies, first demonstrating that the amount of news coverage of an issue is positively related to perceptions of its importance (McCombs & Shaw, 1972), and subsequently examining multiple cognitive dimensions associated with issue importance (Bulkow, Urban, & Schweiger, 2013; Matthes, 2008; Valenzuela, 2011). Taken together, these prominent strands of media research depart from the ontological position that rational thought—afforded by factual information—leads to active citizenship. At the same time, there is growing evidence that other journalistic formats that feature the emotional dimensions of news stories can augment audience understanding, awareness, and engagement with sociopolitical issues (Baum, 2003; Baum & Jamison, 2006; Jebril, Albæk, & de Vreese, 2013; Zillmann & Brosius, 2000). Women who tend to report a sense of disconnection to news (Poindexter, 2008) are particularly responsive to journalistic formats that include more affective and positive dimensions—even in bad news (Kamhawi & Grabe, 2008; Knobloch-Westerwick & Alter, 2007). These findings suggest that the shortcomings of contemporary journalism might be partially attributed to storytelling formats that do not encourage citizens to identify with social issues.

One of these affect-centered journalistic formats, called *personalization*, is the focal point of our study. Personalization has been referred to in a number of different ways across professional and scholarly circles, including case reporting, narrative, human interest, and exemplification. Although there is variance in the theoretical and professional implications of these terms, the gist is consistent. The reporting style in question includes testimony from people directly affected by an issue in addition to factual information and expert testimony that are typical to hard news formats (Bas & Grabe, 2015; Jebril et al., 2013). The goal of this study is to experimentally investigate how personalization of social issues might impact news user perceptions of issue importance. Specifically, two possible mechanisms of personalization effects were tested: identification with and empathy for people who are directly impacted by social issues. If news coverage evokes mental models of the hardship that fellow citizens suffer as a result of social problems (e.g., child labor, sexual harassment, corruption in public housing management), then it is reasonable to expect that affective processes will shape perceptions of issue importance. Indeed, personalization of issues may make issues salient in ways that cold, hard facts do not and cannot. Based on the aforementioned evidence that women are particularly receptive to affect-centered news, we tested participant gender as a moderator of personalization effects.

Personalization as an Affect-Centered News Format

Inspired by the lineage of democratic theory, media researchers have produced a sizable body of literature on the journalistic mission to inform. This scholarship is often unapologetically normative in identifying the shortcomings of journalism, pointing to its pursuit of sensational, emotion-centered, and entertainment outcomes instead of delivering on its promise to offer objective information to the people (Franklin, 1997; Glynn, 2000). Over the past two or more decades, an emerging collection of studies have countered this idea that an emotional charge strips a news story from its information value (Baum, 2003; Baum & Jamison, 2006; Miller, 2007). This area of news research on emotion is not only methodologically pluralistic--scholars also employ variant vocabularies to refer to emotionalized news. Among the commonly used terms are *sensationalism*, *tabloid*, *human interest*, *soft news*, and *infotainment*. There is

also divergence in distinguishing affect-centered news from traditional formats. Some scholars use a taxonomy of media genres (e.g., talk shows, news magazines, news satire shows, entertainment news; Baum, 2002), topical focus (e.g., crime, disasters, scandal; Curran, Salovaara-Moring, Cohen, & Iyengar, 2010), content (e.g., negatively compelling images; Newhagen, 1998), style (e.g., attention-drawing bells and whistles in packaging; Grabe, Zhou, & Barnett, 2001; Hendriks Vettehen, Nuijten, & Peeters, 2008; Örnebring, 2008), and intent (e.g., entertainment and profit; Baum, 2002; Grossman, 2000). Consistently though, scholars have argued and offered evidence that emotional provocation in news is growing globally (see Reinemann, Stanyer, Scherr, & Legnante, 2012, for a summary), and might have positive outcomes for public affairs knowledge gain and civic engagement (Bas & Grabe, 2016; Baum, 2003, 2007; Baum & Jamison, 2006; Örnebring & Jönsson, 2004; Prior, 2003; Reinemann et al., 2012).

Personalization in news, as operationalized in this study, is related to but also distinct from the bulk of work on emotion in news along three dimensions. First, personalization does not introduce emotion into a news story through packaging (e.g., slow motion or sound effects) or content that might provoke survival-relevant automatic responses (e.g., graphic scenes of accidents and disasters). Second, a personalized news story is not defined by topical focus on traditionally sensational infotainment matters such as crime, disaster, or scandal. Third, the arousal or titillation value of personalized stories falls short of automatic arousal responses that have been documented in existing experimental work (Aust & Zillmann, 1996; Grabe, Lang, & Zhao, 2003; Newhagen, 1998). As conceptualized here, personalization refers to the addition of personal testimony about issues, or a case study, in a vividly affective way that has the probability to provoke emotion in the audience (Bas & Grabe, 2015; Bennett & Segerberg, 2013; Boukes & Boomgaarden, 2016; Hendriks Vettehen, Nuijten, & Beentjes, 2005; Jebril et al., 2013; Macdonald, 1998; Rucinski, 1992). It is distinct from the exemplification tradition (Zillmann & Brosius, 2000), which compares exemplars and base-rate data (statistical evidence) for influences on risk perceptions (Aust & Zillmann, 1996; Zillmann & Brosius, 2000). This study is not concerned with risk perceptions. It explored how the industry trend of using personalized, affect-centered case studies to assign a human face to social issues might influence perceptions of issue importance.[1] The topics used were enduring issues rather than breaking hard news events that are typically framed episodically (Iyengar, 1991; Reinemann et al., 2012).

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[1] Although affect-centered news has been shown to proliferate globally, it is not entirely clear with what frequency journalists personalize news. However, some indications are provided in past research. A recent study conducted on Dutch television news found that inclusion of ordinary citizens in the form of vox pops has increased since 1990. Yet including citizens who are affected by news events has decreased in the same time period (Kleemans, Schaap, & Hermans, 2015). In addition, increasing presence of citizens in news was found in Flemish newspapers (De Keyser & Raeymaeckers, 2012). A study by Dimitrova and Strömbäck (2009) indicated that news about the Iraq War, elections, and Mohammed cartoons included ordinary citizens as sources in both the U.S. (59.2%, 37.5%, 26.3%, respectively) and Sweden (39.0%, 14.9%, 9.5%, respectively). In addition, the study of Kleemans et al. (2015) showed that affected citizens—closely related to what we call personalization here—were present in reportage on law and order (42%) and public issues (28%), and to a lesser extent in stories on politics (13%), gossip (9%), and the economy (2%). In all, there are indications that personalization is increasingly used in news in different countries, and that the use of personalization is not limited to specific topics.

Research has shown that personalization can improve memory for audiovisual news content, even among low-education groups who do not learn as much from news content as do highly educated groups (Bas & Grabe, 2015). There is also evidence that the addition of personal testimony to news stories can decrease levels of cynicism (Jebril et al., 2013).

Mechanisms

Two distinct, yet intertwined, bodies of literature on identification and empathy inform our expectation that personalization would trigger emotion in viewers. Identification research has historical roots in social psychology dating back to Mead's (1934) work on identity; Horton and Wohl's (1956) research on parasocial interaction processes, including transportation and presence; and media equation research on the links between mediated and actual social worlds (Reeves & Nass, 1996). One probable mechanism through which personalized news might provoke emotion in the audience is conscious imagination that leads to a temporary adoption of the perspective and identity of media characters (Cohen, 2001). As Cohen (2001) put it, the news consumer feels "with the character, rather than about the character" (p. 251).

Feeling *about* a media character aligns more closely with the empathy literature. Affective and cognitive components of an empathic experience are closely related (Batson, 2011; Shen, 2010) as they involve the vicarious experience of another's emotions as well as cognitive perspective taking (Shamay-Tsoory, Aharon-Peretz, & Perry, 2009). Researchers have found that when people observe others, mirror neurons fire in their brains in patterns similar to acting and experiencing the emotions themselves (Jabbi, Swart, & Keysers, 2007; Rizzolatti, 2008). Moreover, neuroimaging studies show that the experience of empathy simultaneously activates portions of the brain dedicated to affective and cognitive processing (Panksepp, 2011). Given its complementary fit with identification, empathy is central to this study and treated as a mechanism through which personalized news may provoke audience emotion.

Identification and *state empathy* are key building blocks in understanding the influence of message personalization at the news reception end. They are factors that can vary across situations (Lazarus, 1991) and are predicted to do so in association with the manipulation of personalization of news in this experiment. Additionally, *trait empathy* is the relatively stable level of empathy an individual brings to a situation (Davis, 1983). Researchers focused on emotional experiences in mediated environments have noted trait empathy to be a moderator of media effects, such as reactions to sad films (Oliver, 1993), frightening films (Hoffner, 2009), and crime dramas (Raney, 2002), to name a few. Kobach and Weaver (2012) found that participants high in trait empathy had stronger negative emotional reactions to media images of violence than those lower in trait empathy. Moreover, Aust and Zillmann (1996) found news viewers expressed greater distress (and felt more at risk of violent victimization) in response to emotion-laden news if they had high (rather than low) levels of trait empathy. Existing research also points to the potential of personalization to trigger empathic responses. For instance, in a study using newspaper articles about violent crime as stimuli, reader empathy for the victim increased when the stories included personal information about the victim (Anastasio & Costa, 2004). This leads us to the following hypotheses:

H1:   Viewing personalized stories will result in higher levels of identification with people featured in the stories than viewing nonpersonalized stories.

H2:   Viewing personalized stories will result in higher levels of state empathy toward people featured in the stories than viewing nonpersonalized stories.

The literature also indicates that gender might moderate the effects of personalization on viewers. For example, research on the impact of mediated violence showed that female viewers have stronger negative emotional reactions to portrayals of violence than male viewers do (Kobach & Weaver, 2012). Additionally, Cao (2013) found that female viewers of a crime news story reported more empathy when they saw close-ups of the victim's face, whereas male viewers reported lower levels of empathy when presented with a facial close-up. Gender-based emotional differentiation can be detected as early as preschool (Bimbaum, Nosanchuk, & Croll, 1980). Women are more likely to report trait empathy than men (Baron-Cohen & Wheelwright, 2004; Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004).

Based on existing literature, we predict:

H3:   An interaction effect will occur such that that women will report higher levels of identification with people shown in personalized stories (a) than men will and (b) than with people appearing in nonpersonalized stories.

H4:   After controlling for trait empathy, women will report higher levels of state empathy toward the people shown in personalized stories than men will, and women will report higher levels of state empathy after viewing personalized rather than nonpersonalized news stories.

News stories have the capacity to activate affective *and* cognitive systems by offering testimony of people with firsthand experience of newsworthy social issues. The activation of these systems are implicated in shaping news user perceptions of the social world (Zillmann, 2006). This study investigates how citizens evaluate the importance of social issues when they are presented in two distinct journalistic traditions: (1) objectivity-standard reportage that relies on interviews with detached experts and cold, hard facts or (2) human interest reporting that might feature interviews with detached experts and cold, hard facts but also includes personal testimony from ordinary people who are directly affected by social issues.

The differences between these journalistic formats matter because they can influence citizen participation in democratic process. For instance, Jebril et al. (2013) found that exposure to news personalization (operationalized similarly to the study reported here) decreased political cynicism among participants with low interest in politics, whereas it increased political cynicism for those who are high in political interest. Moreover, media portrayals of human suffering can increase empathy for the welfare of others and subsequently drive motivation to act on behalf of disadvantaged groups (Batson, Chang, Orr, & Rowland, 2002; Cao, 2013). This leads to the next hypothesis:

H5:   Participants will evaluate the issues discussed in the news stories as more important when they view personalized rather than nonpersonalized versions of stories.

There is reason to expect that women are more likely to be influenced by emotional testimony than men (Cao, 2013; Zillmann & Gan, 1996). In a victim exemplification study, Aust and Zillmann (1996) found that female participants reported higher levels of perceived issue severity, issue proximity, and personal risk when they saw emotional testimony from victims than when they did not see the emotional testimony. This finding prompts the last hypothesis:

H6:   *Women will rate personalized news stories as more important (a) than men will and (b) than nonpersonalized stories, after controlling for trait empathy.*

Viewed broadly, experimentalists in media effects researchers arguably favor short- over long-term influences. Indeed, studying delayed media influences is a time-consuming and methodologically complicated enterprise. Yet the lasting influences of media use are critical in understanding political socialization and democratic participation of citizens. Some studies have employed delayed measures to test the longevity of emotion-evoking content. Gibson and Zillmann (1994) found that extreme exemplars in news stories about carjacking were more likely than mild exemplars or base-rate data to provoke perceptions of carjacking as a serious national problem. This effect remained robust two weeks later. If the effects of personalization hold over time, it becomes an important dimension in understanding civic engagement with issues, prompting the following research question:

RQ1:   *How will the effects of viewing personalized or nonpersonalized stories on issue importance change over the course of a week?*

A supplementary step in understanding the relationship between message and audience characteristics, one that will enable a more comprehensive view of all the variables in play, is to test a moderated-mediation model (Hayes, 2013). As Cohen (2001) states, "identification is likely to increase enjoyment, involvement, and intense emotional responses, but it is less likely to produce critical stances toward texts. It may be hypothesized that identification increases the persuasive and imitative effects of media on audiences" (p. 260). As this statement indicates, the process of identifying with a media character can lead media users to metaphorically walk in the shoes of another, subsequently allowing them to feel the same emotions as the mediated character. It follows that identification with a character affected by a social issue might elicit higher levels of empathy for that person. Additionally, the aforementioned quote from Cohen (2001) implies that identification might directly impact perceptions of issue importance. This is because identification involves thinking similarly to the mediated character (in addition to feeling as the character might feel). Yet the relationship between identification and empathy has not been tested in mediated contexts. In taking an inclusive view of this relationship and other key variables, we predict that identification indirectly influences issue importance via state empathy, and that the indirect relationship among identification, state empathy, and issue importance could depend on the gender of audience members (see Figure 1). It is unclear how a time delay may influence these interrelationships. Therefore, the final research question was posed:

RQ2:   *To what extent do state empathy, identification, gender, and trait empathy influence the relationship between personalization of news and perceived issue importance at both time points?*
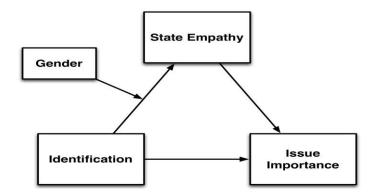
***Figure 1. Predicted relationships among identification, empathy,
gender, and issue importance.***

Method

Design

This experiment employed a mixed factorial design: 2 (gender: male, female) × 2 (news story version: nonpersonalized, personalized) × 2 (time: immediate, one week later). Gender was a between-subjects factor, whereas news story version and time were within-subject factors. Every participant saw eight experimental news stories—half nonpersonalized, half personalized. Participants rated issue importance twice, once immediately after viewing and again one week after exposure.

Participants

An a priori power analysis revealed that with 76 subjects, effect sizes of .25 should be detected with .95 power in this experimental design. Eighty participants therefore offered adequate statistical power. Researchers distributed recruitment material in a small Midwestern U.S. city via community members, neighborhood LISTSERVs, churches, local charities, and Craigslist.com. Individuals received $50 for participating. Eighty participants were selected through a screening process of gender, age, and education. As a result of the process, equal numbers of men and women were included. Because research shows that education interacts with the arousal level and topical content of news messages (Ettema & Kline, 1977; Grabe, Yegiyan, & Kamhawi, 2008), an equal number of high- and low-education participants were recruited for both gender groups. People who held at least a master's degree at the time of data collection composed the high-education group; people who had no more than two years of vocational training represented the low-education group.[2] Participants who fit the age profile for the news industry's

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[2] Participant education level had no statistical bearing on independent or dependent variables. There were no main effects for education on identification, $F(1, 73) = 0.87$, $p = .355$, state empathy, $F(1, 73) = 0.25$, $p = .622$, or perceptions of issue importance, $F(1, 73) = 2.37$, $p = .128$. Moreover, education did not

target audience (Potter, 2011) were recruited for the study (age 25–55 years). On average, participants were 34 years old (SD = 8.74) at the time of the study. Nine participants self-identified as non-White.

Stimuli

Eight news stories were selected from a pool of 26 issue-oriented pieces by ABC News reporter Brian Ross.[3] The reporter was kept constant across stimuli to minimize systematic error potential. Stories were selected using the following criteria: (1) the presence of personal testimony, (2) the potential for experimental manipulation without sacrificing the ecological validity of the stimuli, and (3) the potential for attracting a similar level of interest across gender and education groups. The selected stories covered the following issues: animal abuse in food production; corruption in public housing; child labor in agriculture; airline pilot fatigue; abusive debt collection methods; car manufacturing flaws; legal, but lethal drugs; and sexual harassment.

Using this material, multimedia professionals helped create two versions of each news topic to ensure the ecological validity of the stimuli. The personalized version included a case study featuring someone who either had firsthand experience with the issue as a victim or was close to someone affected by the issue. This emotional testimony concerning the issue was excluded from the nonpersonalized story versions. In fact, nonpersonalized versions of news stories offered no direct visual or audio display or indirect reference to the case study material.[4] Both story versions included interviews with experts and factual information, such as statistics and legal and regulatory technicalities, as is typical in news reporting. The only difference between the two versions was the inclusion of the emotional testimony in the personalized stories (see Figures 2 and 3). The nonpersonalized stories were, on average, shorter (M = 2.40 minutes) compared with personalized stories (M = 3.37 minutes). However, it is important to point out that some personalized versions (e.g., for animal abuse) were shorter than nonpersonalized versions (e.g., for abusive debt collection). Therefore, story duration does not account for differences in perceptions of issue importance because any given participant saw personalized and nonpersonalized versions in one of four randomly ordered story sequences.[5]

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interact with story version on any of the dependent variables: identification, $F(1, 73)$ = 0.719, p = .399; state empathy, $F(1, 73)$ = 0.202, p = .655; issue importance, $F(1, 73)$ = 0.098, p = .755. Therefore, and for parsimony, education level was excluded from subsequent analyses.

[3] http://abcnews.go.com/WNT/brian-ross/story?id=127548

[4] To assess the ecological validity of the stories, 112 journalism students at a large public university watched and rated the stimuli. Order effects were controlled through random assignment of participants to one of two different orders. Each participant saw four personalized and four nonpersonalized stories. They rated each stimulus video on coherence, professionalism, informativeness, and similarity to what is typically seen on television or online news sites using a 9-point scale. An index of the four items was made for each story (α range: .83–.90). The t tests comparing personalized and nonpersonalized stories on the coherence index showed no significant differences (all t <|1.76|) for any of the eight stories.

[5] Order did not impact study outcomes: Order on issue importance: $F(3, 76)$ = 1.45, p = .232; order on state empathy, $F(3, 76)$ = 1.22, p = .305; order on identification: $F(3, 76)$ = 1.85, p = .144.

Figure 2. Sample image from the personalized news story about corruption in public housing organizations across the country. This family lives in a public housing project in Sanford, Florida, that is falling apart and was featured in an ABC News broadcast.

Figure 3. Sample image from the personalized news story about corruption in public housing organizations across the country. This is the mother of the family living in the public housing in Sanford, Florida, speaking to ABC News about her situation.

Measures

Identification

Seven items on 5-point Likert scales (1 = *strongly disagree* to 5 = *strongly agree*) from Cohen (2001) were used to assess identification with individuals impacted by the social issues featured in the stimuli. The wordings were customized to fit each story's content.[6] The items were highly reliable (α = .92) as an index of identification with people in the news stories (nonpersonalized: *M* = 3.57, *SD* = 0.46; personalized: *M* = 3.93, *SD* = 0.46).

State empathy

State empathy toward the people shown in the stories was measured using 10-point scales based on measures used to assess audience empathy for victims in entertainment research (Raney, 2002). Two items measured the empathy toward victims in the news stories by asking their level of "sorrow" and "sadness." Another item assessed resentment toward responsible parties by asking them to report their level of "anger" directed at those who contributed to creating the hardship.[7] The questions used to measure state empathy were highly reliable (α = .93) and therefore aggregated to create the state empathy index for the two news story categories (nonpersonalized: *M* = 7.06, *SD* = 1.64; personalized: *M* = 7.91, *SD* = 1.57).

Issue importance

Issue importance was measured asking participants to rate how they see each story's significance on a personal and societal level. Ten-point semantic differential scales were used, with polar descriptors *not at all important/serious* to *extremely important/serious*. The wordings for these questions were as follows: "How serious is air travel safety as a problem in society?" and "How important is this issue to you personally?" This pair of questions was reliable (α = .91) as an index of issue importance and prompted the same construction procedures as reported above (nonpersonalized: *M* = 6.29, *SD* = 1.87; personalized: *M* = 6.76, *SD* = 1.74). The same questions were also used to measure perceptions of issue importance a week after the exposure. This pair of questions was also reliable (α = .94) and averaged as a one-week delay measure of issue importance (nonpersonalized: *M* = 6.17, *SD* = 1.99; personalized: *M* = 6.73, *SD* = 1.95).

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[6] For example, items for the child labor story were, "I tend to understand the reasons why the children of migrant laborers work in the fields," "While viewing the story, I could feel the emotions that the children might feel," and "During viewing, I felt I could really get inside the children's heads." Contact the authors for the full measure.

[7] For example, the wording for three items related to the story about child labor in agriculture was as follows: (1) While watching the story, how sorry did you feel for the children? (2) While watching the story, how sad did you feel for the children? (3) While watching the story, how angry did you feel toward the farmers for hiring the children?

Control variables

Trait empathy was measured using eleven 4-point items from an emotional reactivity subscale (Lawrence et al., 2004) as a measure of trait empathy from Baron-Cohen and Wheelwright's (2004) empathy quotient. Scores on the 11 items were averaged to create a reliable trait empathy index (α = .79, *M* = 3.11, *SD* = 0.44).

Previous political participation was measured with yes or no responses to eight behaviors (e.g., "Did you vote in the 2008 presidential election?" "Have you ever worn a political campaign button, sign, sticker, or T-shirt?" and "Have you ever donated money to a candidate or political party?"). These responses were summed and divided by eight to form an index of previous political participation to serve as a control variable (*M* = 0.53, *SD* = 0.27).

Participants were also asked to rate their political ideology on the following scale: *extremely liberal, slightly liberal, moderate–middle of the road, slightly conservative, conservative, extremely conservative,* or *haven't thought much about it*. To form an index of *strength of political ideology,* these values were recoded such that extreme liberal or conservative responses were coded as a 3, slightly liberal or slightly conservative was coded as 2, liberal or conservative as 1, and moderate as 0 (*M* = 1.59, *SD* = 0.87). Three participants did not respond to this question, and two others reported not having thought much about ideology. Mean replacement was used for these participants by respective gender and knowledge level (*M* = 1.58, *SD* = 0.84).

Procedure

Study participants were individually scheduled for data collection at a computer lab. Men and women subjects participated in no systematic order. Participants first answered paper-and-pencil questions about familiarity with social issues and previous political participation. Viewing eight news stories on monitors followed. Each participant was randomly assigned to one of four randomly ordered story sequences and watched four different personalized and four different nonpersonalized news stories. Each participant saw all eight stories, four in personalized and the other four in nonpersonalized format. After watching each story, participants answered questions related to identification, state empathy, and issue importance. Strength of political ideology items were answered after watching the stories. Questions regarding demographics, media use, and memory were also asked (results reported elsewhere). Participants were thanked and scheduled for another participation session a week later, without being told that they were going to be asked about the story content again. During the second session, participants were asked to rate issue importance, and then they were paid. All procedures were approved by an institutional review board.

Results

To test the influence of news story personalization on identification, state empathy, and issue importance across participant gender groups, a mixed factorial 2 (story version) × 2 (gender) repeated-measures analysis of covariance was carried out for each dependent variable, with trait empathy, previous

political participation, and strength of political ideology employed as covariates in each analysis. Story version (personalized vs. nonpersonalized) was treated as a within-subjects factor and gender (male vs. female) was included as a between-subjects factor. Perceptions of issue importance were subjected to an additional time factor, with two levels representing an immediate measure and a one-week delay.[8]

Main Effects

The first hypothesis proposed that viewing personalized stories would lead to higher levels of identification than nonpersonalized stories would. This hypothesis was not confirmed, $F(1, 73) = 0.32$, $p = .575$. The second hypothesis predicted a main effect for story version on state empathy. Results showed a close to significant main effect, $F(1, 73) = 3.74$, $p = .057$, $\eta^2 = .04$. As expected, personalized stories elicited higher levels of state empathy ($M = 7.91$, $SE = 0.17$) than nonpersonalized ones did ($M = 7.06$, $SE = 0.17$). The fifth hypothesis prompted testing for a story version main effect on perceived issue importance of news stories, and was supported, $F(1, 73) = 4.02$; $p = .049$; $\eta^2 = .05$. Issue importance means were significantly higher for the personalized ($M = 6.76$, $SE = 0.17$) than were nonpersonalized stories ($M = 6.29$, $SE = 0.18$).

Gender and Version Interactions

Gender was expected to interact with story version on identification (H3), state empathy (H4), and perceptions of issue importance (H6). No support was found for the three hypotheses. Women did not identify, $F(1, 73) = 0.19$, $p = .667$, more with people in news stories than men did and did not vary in identification levels across versions. The test if women report higher levels of state empathy produced results that approached significance, $F(1, 73) = 3.41$, $p = .069$; $\eta^2 = .04$, in the expected direction (personalized: men, $M = 7.40$, $SE = 0.23$; women, $M = 8.42$, $SE = 0.23$; nonpersonalized: men, $M = 6.81$, $SE = 0.25$; women, $M = 7.31$, $SE = 0.25$). Finally, an ANCOVA revealed no gender or personalization differences in ratings of issue importance, $F(1, 73) = 2.06$, $p = .155$.

Although main effects for gender were not predicted, a few noteworthy ones emerged. Regardless of story version, an ANCOVA approached significance for testing gender effects on perceptions of issue importance: Women ($M = 6.86$, $SE = 0.23$) evaluated stories as more important than men did ($M = 6.18$, $SE = 0.23$), $F(1, 73) = 3.85$, $p = .054$, $\eta^2 = .04$. A main effect for gender on level of state empathy appeared in a follow-up ANCOVA, $F(1, 73) = 5.48$, $p = .024$, $\eta^2 = .06$. Women reported more empathic responses toward ordinary people who appeared in the news stories ($M = 7.86$, $SE = 0.22$) than men ($M = 7.10$, $SE = 0.22$). Moreover, an ANCOVA revealed that trait empathy has a significant relationship with state empathy, $F(1, 73) = 11.38$, $p = .003$, $\eta^2 = .12$.

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[8] Based on Levine and Hullett (2002), we used η^2 to estimate effect sizes. Although researchers agree on the formula (ratio of sum of squares for an effect to the total sum of squares), there is disagreement on what constitutes the total sum of squares for a mixed factorial repeated-measures design. Reported here is the most conservative method, which includes all sources of variance (i.e., main effects, interaction effects, and error terms) in calculating the total sum of squares.

Time Effects on Issue Importance

RQ1 asked if story version might change perceptions of issue importance over the course of a week. The results of an ANCOVA, with version and time as within-subject factors, gender as a between-subject factor, and trait empathy, previous political participation, and strength of political ideology as covariates, showed no main effects for story version, $F(1, 73) = 2.60$, $p = .111$, or time, $F(1, 73) = 0.05$, $p = .829$, but significant variance across gender, $F(1, 73) = 7.31$, $p = .009$, $\eta^2 = .06$. Women reported higher importance ($M = 6.94$, $SE = 0.23$) than men ($M = 6.03$, $SE = 0.23$). This effect reemerged in the only significant interaction in this model, namely, between gender and time, $F(1, 73) = 6.02$, $p = .016$, $\eta^2 = .02$. Post hoc tests show that at Time 2, $F(1, 73) = 10.3$, $p = .002$, women had higher perceptions of issue importance ($M = 7.03$, $SE = 0.24$) than men did ($M = 5.87$, $SE = 0.24$). At Time 1, differences between women ($M = 6.86$, $SE = 0.23$) and men ($M = 6.18$, $SE = 0.23$) approached significance, $F(1, 73) = 3.85$, $p = .054$. Moreover, there was a significant decrease, $F(1, 73) = 5.62$, $p = .020$, for men over time, whereas women rated issue importance similarly at both time points, $F(1, 73) = 1.59$, $p = .212$.

Conditional Process Analysis

Another step to parse the effects of identification, state empathy, trait empathy, and gender on perceived issue importance was initiated by RQ2. Identification was used as the independent variable and empathy as the mediator variable based on the notion that identifying with a media character leads to more intense emotional reactions (Cohen, 2001; see Figure 1). To this end, a moderated-mediation model was tested using the PROCESS macro (Hayes, 2013). The macro uses an OLS regression and bootstrapping to estimate indirect effects of independent variables on a dependent variable, making the model appropriate to test the proposed interrelationship among identification, state empathy, gender, and issue importance. Our analyses used Model 7 in the PROCESS macro, which combines the mediation and moderation analyses with 5,000 bootstrap samples and bias-corrected 95% confidence intervals. A bias-corrected 95% confidence interval of the estimated coefficient is indicative of a significant indirect effect of identification on issue importance. The analyses also controlled for trait empathy, strength of political ideology, and previous political participation to isolate the effects of the stimuli.

Because story version was a within-subjects variable, two different moderated-mediation analyses were run. The first used measures of identification, state empathy, and perceived issue importance after viewing the personalized versions of the news stories at Time 1. The direct relationship between identification and perceived issue importance approached significance (point estimate = 0.74, $SE = 0.38$, $p = .05$). This model also revealed a significant positive indirect effect of identification on perceived issue importance via state empathy for male viewers, but not for female viewers (male: indirect effect point estimate = 1.39, boot $SE = 0.37$, 95% CI [0.72, 2.16]; female: indirect effect point estimate = 0.36, boot $SE = 0.34$, 95% CI [−0.28, 1.09]; see Figure 4 for point estimates of all paths). The index of moderated mediation was significant ($p < .05$) for this model (−1.02, boot $SE = 0.41$, 95% CI [−2.04, −0.38]), confirming that the positive indirect effects of identification on perceived issue importance were moderated by gender (significant and positive for male, but not significant for female viewers) when participants viewed the personalized stories.

**Personalized
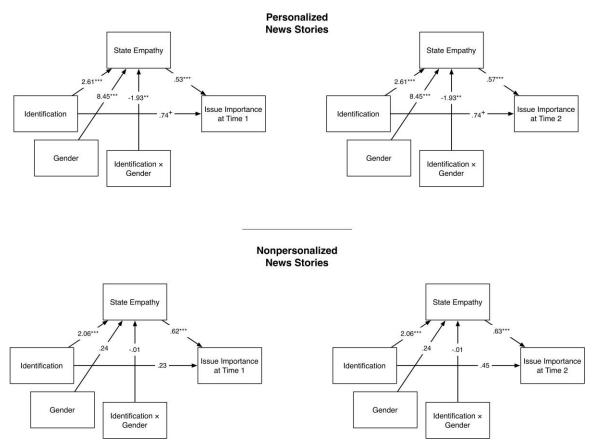News Stories**

**Nonpersonalized
News Stories**

Figure 4. Values are nonstandardized point estimates; trait empathy, previous political experience, and strength of political ideology were controlled for in each analysis. $^{+}p < .10,$ *$^{**}p < .01,$ $^{***}p < .001.$*

The same model was used to test the effects of nonpersonalized news stories at Time 1. In this model, the positive effects of identification on perceived issue importance were also mediated by state empathy (male: indirect effect = 1.29, boot *SE* = 0.40, 95% CI [0.64, 2.23]; female: indirect effect = 1.28, boot *SE* = 0.45, 95% CI [0.57, 2.30]).The direct relationship between identification and perceived issue importance was not significant (point estimate = 0.28, *SE* = 0.43, *p* =.52). The index of moderated mediation for this model was not significant (index = 0.00, boot *SE* = 0.23, 95% CI [−0.60, 0.68]), confirming that the indirect effects of identification on perceived issue importance are not dependent on the gender of the participant when viewing nonpersonalized stories.

To further probe RQ1 and RQ2, the moderated-mediation models were run twice more, this time with the Time 2 issue importance variables for both story formats. The relationships in the model remained the same a week later (see Figure 4). For personalized stories, there was moderated-mediation based on gender (index of moderated mediation = −1.10, boot *SE* = 0.42, 95% CI [−2.11, −.42]) and mediation via empathy for men but not women (male: indirect effect point estimate = 1.49, boot *SE* =

0.49, 95% CI [0.63, 2.54]; female: indirect effect point estimate = 0.39, boot SE = 0.40, 95% CI [−0.27, 1.28]) at Time 2. For nonpersonalized stories, there was mediation via empathy for both male and female viewers (male: indirect effect point estimate = 1.30, boot SE=.51, 95% CI [.50, 2.46]; female: indirect effect point estimate = 1.30, boot SE = 0.56, 95% CI [.40, 2.49]) with no gender-based moderation (index of moderated-mediation = 0.00, boot SE = 0.35, 95% CI [−0.62, 0.79]) at Time 2.

Discussion

This study investigated how message (personalization of stories) and audience (trait empathy, gender) characteristics influence news reception. Personalizing a story can evoke greater feelings of empathy toward and indirectly enhance identification with people affected by social issues. These effects were persistent over time. Thus, viewing personalized news about social issues lingered even as participants went about their day-to-day lives. The implications of these findings for the relationship between journalism and civic engagement are worth consideration and further exploration in future work. Of particular importance are even longer term (several months after exposure) influences of personalization on media user perceptions of social issues and behavior outcomes (e.g., civic engagement) resulting from such perceptions. The data also revealed that trait empathy was a strong predictor of state empathy. Future research could test if chronic exposure to news that provoke state empathy might impact trait levels of empathy. Perhaps the repeated viewing of empathy-evoking stimuli can alter base levels of viewer empathy toward people they encounter in news stories.

Gender was an important variable in understanding personalization effects. Women reported higher levels of state empathy, regardless of story format. One explanation for this finding could be gender differences in self-construal. Cross and Madson (1997) argue that men often maintain an independent self-construal, whereas women are more likely to have interdependent views of self. Perhaps viewing news stories of people who suffer had a greater impact on women because their self-construal is more other dependent, whereas men may not be as sensitive to the plights of others as they are to what matters to them personally. Additional research using measures related to self and perceptions of others could test this notion.

We ran multiple path analyses to test the processes behind personalization effects on issue importance. Clearly, from nonsignificant main and interaction effects it is clear that personalization affects media users in indirect ways. These analyses revealed that higher levels of identification with ordinary people who appear in the news lead to increased feelings of empathy for them, which in turn lead participants to perceive the issues discussed in the news stories as more important. These paths were robust a week later. An alternative explanation to these findings could be that, although we found support for the configuration tested, perhaps empathy promotes identification. Future work could find ways to manipulate identification or empathy with personalized news to probe the relationships among these variables and issue importance and behavioral outcomes, such as civic participation. There are at least two studies worth mentioning. One is focused on radio news (Coke, Baston, & McDavis, 1978), the other on games (Bachen, Hernández-Ramos, & Raphael, 2012) that point to relations (mediating and correlational, respectively) between empathy and identification/perspective taking. This area of study—

across media genres—would deepen theoretical grasp of empathy and identification as two related yet distinctly separate responses that occur with frequency during mediated human interaction.

The process models also demonstrated that for personalized stories, a gender by identification interaction moderated the way identification with people in the stories impacted perceived issue importance (indirectly) via state empathy. Although women are statistically more likely to experience state empathy after watching personalized news stories, state empathy does not serve as a mediator for identification's effect on issue importance for female viewers. This implies that when women watch personalized news stories, their perceptions of issue importance are not driven so much by the degree to which they *identify* with people on the screen as by the *empathy* they feel for them. When men watch personalized news, identifying with people is an important, albeit indirect, step to perceived issue importance. For nonpersonalized stories, gender did not moderate the indirect effects of identification with people on perceived issue importance, meaning that when a story is less personal, gender is not the best predictor of audience perceptions. Future work could look for ways to manipulate identification with or empathy for people in personalized stories to probe causal mechanisms behind the effects of news personalization and gender on issue importance.

Beyond leaving several dangling questions for future research, this study has its limitations. Experiments are useful for observing how variables interact with each other under controlled circumstances. Yet these findings are not generalizable. By using professional news stories, the stimuli in this study have ecological validity. This helps to make projections about how the stories would be received outside the confines of an experimental situation. Even so, all eight news stories in this study came from one network and one reporter, an unlikely consumption pattern for contemporary news users.

Despite the shortcomings of design and measurement, the results we reported offer reason to consider the civic engagement potential of affect-centered news stories. Some scholars argue that there is, in fact, an emotional deficit in news, "a lack of crafted, sustained attention to the emotional needs of the audience" (Richards, 2004, p. 342) and see promise for promoting civic engagement by increasing emotional involvement with issues (Brader, 2005; Graber, 1994; Groenendyk, 2011; Richards, 2004). This study offers a stepping stone for understanding how personalization might bring social issues into the realm of what matters to citizens.

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