

# When *They* Cry: Tears Facilitate Responses Toward Members of Socially Disadvantaged Groups

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Emotional tears are vehicles for bonding between individuals, even with those belonging to different social categories. Yet, little is known about the reactions they provoke toward members of underprivileged groups such as immigrants or the explanatory mechanisms of their effects. Across three experiments (with 546 adults) using standardized images of emotional displays, we tested the effects of tears on cognitive inferences (of warmth and competence) and self-reported affective responses (such as compassion or discomfort), and both directly and indirectly on self-reported prosocial behavioral intentions toward an immigrant male. Compared with nontearful (i.e., neutral and sad) expressions, observers perceived a tearful immigrant as warmer but not as less competent (except for study 3). They also felt more compassion (but not discomfort) and were more willing to offer an immigrant person emotional (i.e., to approach and comfort) and instrumental support (i.e., to donate money to an organization helping immigrants but not volunteer their time). Inferred warmth and felt compassion (or compassion-related emotions) explained the effects of tears on emotional support and donation intentions. This research highlights the need to study emotion expression in the context of interethnic and, more broadly, intergroup relations and the effects of emotional tears beyond the willingness to provide immediate assistance. We also discuss implications that tears might have for promoting different types of solidarity with members of underprivileged groups such as immigrants.

**Keywords:** tears, helping, prosocial intentions, socially disadvantaged groups, immigrants

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Assessing others' emotional states is crucial for social interactions (e.g., Harker & Keltner, 2001). The presence of tears is one emotional cue that can influence how we perceive and respond to a person. Besides serving as a tool for emotional recovery after a distressing episode, tears communicate one's suffering and generally elicit in the observer empathic concern and willingness to comfort or offer help (e.g., Cornelius & Labott, 2001; Gračanin et al., 2018; Hendriks & Vingerhoets, 2006; Vingerhoets & Bylsma, 2016). Tears can therefore be a bonding vehicle and a tool for promoting empathy

and solidarity with individuals belonging to different social categories. This is particularly important because people may feel less motivated to care about and help outgroup than ingroup members (see Cikara et al., 2011). In light of this, comprehending the effects of nonverbal communication, including emotion expression, among members of disadvantaged groups may be particularly crucial for combating discrimination and prejudice (Yabar & Hess, 2007).

Among disadvantaged groups, immigrants are an important group of concern globally. According to the Migration Data Portal

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(United Nations, Department of Economic and Social Affairs, 2021), there are 280.6 million migrants globally (data at midyear 2020). Despite growing migration trends and the fact that we all live in ethnoculturally diverse environments (Vertovec, 2007), immigrants arriving at the borders of Western countries are usually portrayed in mass media as experiencing and expressing negative emotions, ranging from despair and sadness to anger and fear. Tearful faces are also frequent portraits of these newcomers. Terms such as “migrants” or “refugees” in any Internet search engine often yield images of immigrants or asylum seekers shedding tears, including children and adults, females and males, from different parts of the world. Although tearful images of immigrants are abundant in mass media, little is known about reactions to emotional tears shed by unfamiliar others: members of other groups (but see Warner & Shields, 2007), including socially disadvantaged groups such as immigrants. Research on emotional tears has instead mainly focused on how people perceive others who have a similar social standing in society (except research on tears that considered the gender dimension), and has not acknowledged group categorization processes. This is problematic because socially disadvantaged groups need particular social assistance from mainstream society and its political institutions.

In parallel, as helpers and recipients of aid differ in their social status, people may help others in need with different motivations in mind (Nadler & Chernyak-Hai, 2014; Nadler & Halabi, 2006), including maintaining their superior social standing. In response to tears, people might also be willing to offer emotional support but not other, more instrumental, forms of help. It is thus of utmost importance to understand what motivates willingness to provide not only emotional support but also instrumental social assistance to individuals who suffer social disadvantage, such as immigrants. These more instrumental forms of help are crucial because ethnic minorities face difficulties in getting access to housing (Auspurg et al., 2019; Flage, 2018), employment (Zschirnt & Ruedin, 2016), education, health, and services, as well as are exposed to discriminatory treatment by the police and are victims of hate crime (European Union Agency for Fundamental Rights, 2017). In this research, we tap into two types of intentions to offer instrumental help: willingness to make a monetary donation and volunteer time in an organization helping immigrants. We thus go beyond examining the link between tears and the mere willingness to offer emotional support such as willingness to comfort a person (e.g., Gračanin et al., 2018), or acknowledgment that they need support (Vingerhoets et al., 2016), in response to others' suffering expressed through tears. The provision of emotional support might provide immediate relief in suffering (i.e., while keeping the receiver of comfort in a situation of disempowerment) but might not necessarily address other types of needs members of socially disadvantaged groups might have, which might require more concrete and long-term actions.

Our research sheds additional light on the existing debate on the dampened empathy and prosocial behavior in response to suffering expressed by outgroups and the effectiveness of empathy-inducing interventions aimed at improving intergroup relations (Batson & Ahmad, 2009; Cikara et al., 2011). Although people are less likely to feel concerned about a person in need from a different social category, their response may depend on the way members of unfamiliar social categories express their suffering. We propose that, when accompanied by emotional

tears (a universally human social cue, Vingerhoets, 2013), outgroup suffering may enhance equally strong prosocial responses as suffering experienced by the ingroup.

Following the emotions as social information (EASI) model (see Van Kleef, 2009), which suggests that emotional expressions affect observers' behavior by stimulating inferential processes and/or affective reactions in them, we define a threefold goal of our current research. Across three experimental studies, we examined the observer's (a) cognitive judgments (inferences about warmth and competence); (b) self-reported affective reactions; and (c) self-reported behavioral intentions in response to images of a tearful immigrant, also indirectly via cognitive inferences and affective reactions. Importantly, we tested the impact of images of tearful immigrants on willingness to provide emotional support (i.e., approach intentions) and evade contact (i.e., avoidance intentions) but also whether the help-eliciting effects of tears extend to more instrumental aid, such as intentions to make monetary donations or volunteer time to help immigrants in need. In one study, we also included a nonimmigrant target for comparison. We focused particularly on affective and cognitive processes as explanatory mechanisms of the link between the presence of tears and intentions to offer emotional support and instrumental help. We have extended existing research on underlying mechanisms in the link between tears and prosocial behavioral intentions by verifying if these effects occur not only through the inferences about the crier's warmth and competence but also via the activation of other-focused (e.g., compassion) or self-focused emotions (e.g., discomfort). We also explore the effects of tears on a broader array of self-reported positive and negative affective reactions (i.e., trust, anger, and rejection).

Our work adds external validity to previous research on interpersonal effects of tears (e.g., Gračanin et al., 2018; Riem et al., 2017; van de Ven et al., 2017; Vingerhoets et al., 2016; Zickfeld et al., 2018; Zickfeld & Schubert, 2018) also by introducing new methodological procedures. First, most prior research compares images of tearful individuals with the same emotional displays with tears digitally removed (but see, e.g., a study by Balsters et al., 2013 in which tears were digitally added to sad faces). Yet, a facial expression when crying might involve more than only shedding tears. Thus, it is not completely clear what emotional expressions are compared against each other once tears are removed. In our research, we digitally added visible tears to standardized and validated displays of sadness, which allowed us to examine the *subtractive effect* of tears compared with sadness. Along with the expression of sadness with digitally added tears and without them, we additionally included a *neutral baseline condition*, which enabled disentangling the positive effects of tears from the negative effects of sadness (but see Balsters et al., 2013; Reed et al., 2019).

To verify to what extent the impact of tears can be accounted for by communicating generic affiliative intentions or due to expressed suffering, we also compared the effects of tears to that of another positive display (i.e., happiness). In addition, the use of standardized emotional display data sets ensured that the effects of diverse confounding variables, such as a facial expression or other individual characteristics (hairstyle, makeup, etc.), were removed. Finally, we used an integrative data analysis (Curran & Hussong, 2009) to test the homogeneity of the effects of tears across targets with different ethnic backgrounds.

## Tears and the Observer's Cognitive Inferences

As a source of social information, emotional displays may affect others' impressions of our characteristics (e.g., Van Kleef, 2009). Shedding tears is expected to convey in particular emotionality and warmth, defined by such features as being friendly, reliable, or kind, and thus revealing good intentions toward others (Fiske et al., 2002). Accordingly, prior research has shown that tearful individuals are evaluated as more emotional (Hendriks et al., 2008; Hendriks & Vingerhoets, 2006; Labott et al., 1991; Reed et al., 2015), capable of expressing emotions and feeling empathy (Küster, 2018), and less aggressive (Hendriks & Vingerhoets, 2006), relative to nontearful ones. More recent studies also revealed that emotional tears increase an observer's inferences of psychological warmth (van de Ven et al., 2017; Zickfeld & Schubert, 2018), although some failed to find similar effects (Küster, 2018). In contrast, some earlier empirical evidence suggests that people attribute fewer positive characteristics (e.g., being a friendly or good person) and view criers as less pleasant than noncriers (Hendriks et al., 2008; Hendriks & Vingerhoets, 2006; Labott et al., 1991), reflecting the ambiguity associated with tears.

The relationship between tears and perceptions of competence (i.e., capacity, intelligence, skills) has been less studied. Competence reflects the ability and power to carry out one's intentions (Fiske et al., 2002), and research has proved that tearful individuals are perceived as less competent because of the sadness they express (van de Ven et al., 2017). In consequence, people may be motivated to down-regulate crying to avoid negative appraisals of their competence (Simons et al., 2012). Still, other investigations did not find effects of tears on perceived competence (Zickfeld & Schubert, 2018; Zickfeld et al., 2018; Study 2), and more research with different methodological procedures is necessary to understand this link better, especially concerning less socially valued—and usually perceived as less warm and competent—groups (Lee & Fiske, 2006). In line with this theorizing and most prior research, we expected that tears (as compared with neutral and sad expressions) would increase attributions of warmth but decrease the perceived competence of a member of a disadvantaged group (specifically, an immigrant; Hypothesis 1 [H1]).

## Tears and the Observer's Affective Reactions

Compared with nontearful expressions, tearful faces are perceived to express more sadness (Hendriks & Vingerhoets, 2006; Küster, 2018; Labott et al., 1991; Provine et al., 2009), shame, and less happiness (Küster, 2018). In addition, people who shed tears are more likely to be viewed as feeling moved (Gračanin et al., 2017). However, observers do not only recognize emotions that someone's tears convey, but they may also react emotionally to tearful individuals. Because they communicate suffering, tears may activate two different types of affective reactions: either distress (i.e., discomfort) or empathic concern (i.e., compassion) (Batson et al., 1983), depending on the observer's motivations. Nevertheless, while research has examined quite broadly people's cognitive inferences about criers, still little is known about specific emotional reactions that tears elicit in the observer.

A couple of studies did examine affective reactions to tears. Concerning negative affective reactions, some scholars have suggested that people may react to other's suffering with personal

distress or discomfort (Batson et al., 1983) and that crying as well can arouse in observers feelings of discomfort or even anger, especially if perceived as inappropriate (Frijda, 1997; Kottler, 1996). Empirical research has corroborated that emotional tears provoke distress in observers, together with other negative emotions, such as sadness (Hendriks et al., 2008; Hendriks & Vingerhoets, 2006; Küster, 2018). Yet, this earlier research captured distress with a wide array of emotional states, including anger and (low) happiness, and more research is needed to disentangle discomfort from other affective reactions to tears.

Even less is known about the effects of tears on positive affective responses that can facilitate prosocial behavioral intentions, such as offering emotional support and instrumental help. One class of reactions that emotional tears may motivate is self-transcendent positive emotions (Stellar et al., 2017), and particularly other-suffering oriented ones (Haidt, 2003), such as compassion and related emotions of pity, but also love and tenderness. We propose that especially compassion and related emotions, such as feeling moved, are key affective mechanisms in activating prosocial responses toward tearful individuals. They are argued to orientate the *self* toward the world and promote connection with others (e.g., Yaden et al., 2017). Compassion is understood as attention and intention toward alleviating interpersonal distress or feeling of being concerned with another's suffering (Haidt, 2003), and feeling moved (i.e., *kama muta*, meaning moved by love toward others) involves intensification of an interpersonal relationship (e.g., Fiske et al., 2017; Seibt et al., 2017). Empirical evidence suggests that people react with more empathic concern toward tearful individuals (Zeifman & Brown, 2011) and that emotional tears express and are perceived to convey feeling moved (Gračanin et al., 2017; Seibt et al., 2017; Zickfeld & Schubert, 2018), an emotion that can elicit a similar reaction in observers by mere emotional mimicry (Hess & Fischer, 2013).

In sum, we hypothesized that emotional tears among members of underprivileged groups would activate positive self-transcendent emotions of compassion (and related emotions of pity, tenderness, or feeling moved; H2) but also the negative emotion of discomfort (H3). We also—in an exploratory manner—examined the effects of tears on other positive (trust) and negative (anger, rejection) affective reactions in the observers.

## Tears and the Observer's Behavioral Intentions

Tears are argued to be one of the strongest signals that one's face can reveal (Cornelius & Labott, 2001), and they communicate the need for attention or succor (e.g., Fridlund, 1992). Hence, tears should encourage prosocial tendencies toward the crier, such as willingness to approach (Frijda, 1997) and provide support and help (Kottler & Montgomery, 2001). In line with this rationale, abundant research has corroborated that the presence of tears indeed facilitates intentions to approach, provide comfort, and offer help (Balsters et al., 2013; Gračanin et al., 2018; Hendriks & Vingerhoets, 2006; Hendriks et al., 2008; Küster, 2018; Riem et al., 2017; van de Ven et al., 2017; Vingerhoets & Bylsma, 2016; Vingerhoets et al., 2016; Zickfeld & Schubert, 2018). More specifically, this research also suggests that emotional tears facilitate approach, relative to avoidance responses (Gračanin et al., 2018; Riem et al., 2017), probably because of the help-elicitation

function and the ability of tears to signal the absence of hostile intentions (Gračanin et al., 2018).

Prosocial responses in previous studies were nevertheless usually captured as a situation-specific and immediate disposition to comfort and help, and one study examined the influence of tears on prosocial tendencies in an economic game (Reed et al., 2019). To our knowledge, no previous research has examined the relationship between tears and prosocial intentions to offer instrumental help. We thus also measured intentions to make a donation to or to volunteer in an organization helping immigrants. Based on existing literature, we predicted that, in response to emotional tears of an immigrant person, observers would exhibit a greater willingness to approach (but not necessarily to avoid), as well as donate money to and volunteer in an organization helping immigrants (H4).

A question that remains unanswered is *why* tears motivate people to respond in a prosocial manner. In line with the EASI model (Van Kleef, 2009), we expected that both cognitive evaluations and emotional reactions to tears would further facilitate prosocial behavioral intentions. First, we argue that, in response to emotional tears displayed by members of a socially disadvantaged group, observers' cognitive judgments of (higher) warmth and (lower) competence about others will translate into a greater willingness to approach and assist the person in need. In line with this idea, research has revealed that tears enhance prosociality or even a desire to interact (e.g., work with) through observers' perceptions of crier's friendliness, trustworthiness, or attribution of warmth (Reed et al., 2019; van de Ven et al., 2017; Vingerhoets et al., 2016), but also via helplessness (i.e., attribution of powerlessness and vulnerability) and decreased competence (van de Ven et al., 2017; Vingerhoets et al., 2016). Still, more research is needed to comprehend the effects of tears on other types of prosocial responses such as intentions to offer instrumental help—for instance, make a monetary donation or engage in volunteering—via cognitive judgments of warmth and competence. We thus tested the hypothesis that higher perceived warmth and lower perceived competence explain the effect of tears on willingness to provide an immigrant person emotional support (i.e., approach and comfort) but also instrumental help (i.e., make a monetary donation or volunteer time; H5).

Following the same logic, we expected that self-transcendent emotions (i.e., felt compassion) and self-focused negative emotions (i.e., felt discomfort) would explain the impact of tears on helping intentions toward an immigrant. It is argued that people can be motivated to help others because they empathize with them and/or want to reduce personal discomfort caused by other's suffering (Batson et al., 1983). Thus, on the one hand, self-transcendent emotions, such as compassion, are argued to be involved in the development and maintenance of social relationships with others and to regulate prosocial behavior such as group coordination, caretaking, and cooperation (Stellar et al., 2017; Van de Vyver & Abrahams, 2015). Empirical research confirms that compassion facilitates prosocial behavior (for review, see Goetz et al., 2010). On the other hand, tears could elicit helping intentions indirectly through affective reactions of discomfort and an egoistic motivation to reduce personal distress (Batson et al., 1983). This is why we expected both felt compassion and discomfort to explain the help-eliciting function of tears, including effects on intentions to offer emotional support but also instrumental help, either through

a monetary donation or volunteering time in a civil society organization assisting immigrants (H6).

## Tears and Members of Socially Disadvantaged Groups

As we proposed, it is crucial to examine the effects of emotional tears in eliciting helping intentions particularly toward members of socially disadvantaged group categories, such as immigrants, comparatively with nonimmigrant members of the community. We thus tested—in an exploratory manner—if the effects of tears would be equal in strength for members of an underprivileged outgroup (immigrants) compared with one's group. To date, no studies analyzed effects of emotional tears on perceptions of members of socially disadvantaged versus advantaged groups. Some scholars propose that contextual information about an outgroup member may nullify the role of factors like group membership in driving cognitive inferences about others (Ambady & Rosenthal, 1992; Senft et al., 2016), thereby reducing the influence of preexisting biases on impression formation and behavioral responses. In general terms, Lee and Fiske (2006) found that, although most immigrant groups receive ambivalent stereotypes, less familiar immigrant groups are perceived as low on both warmth and competence dimensions. These "low-low groups" also receive negative emotional reactions such as disliking and disrespect (Fiske et al., 2002; Harris & Fiske, 2006). Thus, our question is whether the help-eliciting function of tears, as a universal emotional signal, extends to members of socially disadvantaged groups such as immigrants. Following the idea of the role of emotion expression in alleviating the impact of intergroup bias (e.g., Ambady & Rosenthal, 1992), tears might remove (or reduce) the influence of stereotypes on the perceptions of a member of a socially disadvantaged group. It is also possible, however, that we will observe that tears are equally effective in facilitating prosocial intentions (as well as specific cognitive judgments and affective reactions) irrespective of group membership.

## Overview of the Present Research

Research reported here aims to show, through three experimental studies, that the occurrence of tears influences cognitive judgments, self-reported affective responses, and behavioral intentions toward members of socially disadvantaged groups, such as immigrants. In Study 1, we examined among Spanish participants the effects of tears (compared with nontearful neutral and sad expressions) on responses toward a Romanian male immigrant. Study 2 checked how Spanish participants react toward a tearful representative of a more culturally distant group, namely, Moroccans. Moroccans are a group with relatively lower social status in Spain: They are, for instance, evaluated lower in terms of warmth and competence than Romanians (López-Rodríguez et al., 2014). We compared responses to tears with reactions to neutral and sad expressions, but also with a display of happiness. In Study 3, we relied on a more diverse sample of Spanish participants and used a Middle Eastern (Syrian) immigrant as a target. The images of tearful refugees from Syria were common representations of this group in mass media and Syrian refugees are a group that is perceived as in particular need of social assistance. We additionally tested in Study 3 the role of group membership (immigrant vs. nonimmigrant category) and measured intentions to offer not only

emotional but also instrumental support (i.e., monetary donations and volunteering in an organization helping immigrants). Data and materials from all three studies are available at <https://osf.io/gphrb/>. All studies received research ethics committee approval from the University of the Basque Country.

## Study 1

### Method

#### Participants and Procedure

Ninety-seven native-born Spanish undergraduate students (all Caucasian; 85% female;  $M_{\text{age}} = 20.84$ ,  $SD = 3.33$ ) filled in a web-based questionnaire in the classroom (three non-native students were excluded from the analyses).<sup>1</sup> Participants were randomly assigned to three conditions in which they were exposed to a photograph of a Caucasian male presented as Andrei from Romania with either a neutral ( $n = 37$ ) or sad ( $n = 31$ ) or tearful ( $n = 29$ ) expression (see online supplemental materials, Section G, Figure S1). Both in Study 1 and 2, we aimed for a minimum of 30 participants per condition (following a convention). As emotional stimuli, we applied images of the same individual extracted from a standardized Karolinska Directed Emotional Faces dataset (Lundqvist et al., 1998). We obtained the stimulus for the third condition by digitally adding tears to the photograph ( $8.32'' \times 6.14''$  in all studies) with an expression of sadness.<sup>2</sup> Across three experiments, participants were informed that the study examined the perception of human faces and that their participation was voluntary and anonymous. Participants observed the stimulus and, when ready, filled in the questionnaire. Participants indicated their demographics and were probed for suspicion (none revealed knowledge about the purpose of the experiment). Finally, they were debriefed and thanked for their participation in the study.<sup>3</sup>

#### Measures

All measures were placed on a scale from 1 (*not at all*) to 7 (*a lot*) unless otherwise indicated. As a manipulation check, we measured the attribution of emotions to both facial displays. Participants rated to what extent the face on the photograph expressed a neutral emotional state, sadness, or was shedding tears. Then, participants evaluated the extent to which they considered the immigrant “warm” and “competent” (with a single item per each). We assessed affective responses of compassion (“sadness” and “compassion”;  $r = .78$ ), discomfort (“discomfort” and “tension”;  $r = .39$ ), rejection (“aversion”; one item), anger (a single item), and trust (“trust” and “liking”;  $r = .53$ ). We captured approach intentions with two items (“I would like to approach him and establish contact with him” and “I want to be close, to talk and to listen to him”;  $r = .84$ ). Avoidance tendencies were also covered with two statements (“I feel like I should protect myself from him” and “I’d rather have nothing to do with him”;  $r = .37$ ).

### Results

Simple means, standard deviations, and ANOVA statistics are presented in Table 1. Bivariate correlations are shown in online supplemental materials, Section A, Table S1. Across three experiments, we tested our predictions with planned contrasts between

the experimental condition (i.e., emotional tears) and each of the remaining conditions (online supplemental materials, Section B, Table S4).

#### Manipulation Checks

The ANOVAs showed that participants perceived the immigrant’s facial display with tears as more expressive (i.e., less neutral) than the neutral but not sad expression. In contrast, perceived sadness was higher in the tearful compared with both the neutral and the sad display (all pairwise comparisons and effect sizes are reported in online supplemental materials, Section B Table S4). In the tearful condition, participants also agreed more that the target was crying more than in both nontearful (i.e., neutral and sadness) conditions. Based on these results, we considered our digital manipulation of tears successful.

#### Self-Reported Cognitive Inferences

Tears generated more perceptions of warmth, but not competence, compared with each of the nontearful conditions (suggesting an additive effect of tears over sadness on warmth), lending partial support to our prediction.

#### Self-Reported Affective Responses

We also found a significant effect of tears on compassion, but not on discomfort or rejection. As expected, observers felt more compassion in response to the tearful than neutral display, but not compared with the sad expression. We did not detect significant effects of the manipulation on trust or anger.

#### Self-Reported Behavioral Intentions

Finally, participants were more prone to approach, but not to avoid, the tearful Romanian immigrant compared with nontearful displays.

#### Indirect Effects of Tears on Behavioral Intentions Through Cognitive Inferences

We hypothesized that increased warmth and reduced competence might explain the effect of facial expression on self-reported behavioral (approach) tendencies. To test the significance of the indirect effects, we used the SPSS macro PROCESS for bootstrapping indirect effects (Hayes, 2013), with 5,000 bootstrap estimates. As an

<sup>1</sup> We used two-way ANOVA to examine if gender affected the main effects of experimental manipulation on our main dependent variables. Due to the small sample size in the male group (only reached 28 native Spanish participants in the total sample), we merged the data from Study 1 and 2 to test for possible interaction between expression (neutral vs. sadness vs. tears) and participants’ gender. We did not find significant interaction effects, except for felt discomfort,  $F(2,202) = 3.38$ ,  $p = .036$ . No other significant interactions with participants’ gender were detected.

<sup>2</sup> The information about pretests carried out to examine the quality of digital manipulation of tears in Study 1 is presented in the online supplemental materials, Section H.

<sup>3</sup> For exploratory purposes, we measured attitudes towards immigrants (feelings thermometer, prejudice, and empathic concern towards Romanian and Moroccan immigrants, respectively, in Studies 1 and 2; perceived threat, dehumanization, and willingness to engage in intergroup interaction with Moroccans in Study 2; and willingness to donate money to the UNHCR, the UN Refugee Agency in Study 3), but no significant effects of experimental manipulation were detected. We also measured ingroup identification (in Study 1).

**Table 1**

*The Effects of Emotional Tears on Observer's Self-Reported Cognitive Judgments, Affective Responses, and Behavioral Intentions: Analysis of Variance, Simple Means, and Standard Deviations in Study 1*

Measure	Neutral <i>M</i> ( <i>SD</i> )	Sadness <i>M</i> ( <i>SD</i> )	Tears <i>M</i> ( <i>SD</i> )	<i>df</i>	<i>F</i>	<i>p</i>
Manipulation checks (attributed emotions)						
Perceived neutrality	3.73 (2.21)	1.74 (1.09)	1.34 (0.81)	2, 94	22.73	<.001
Perceived sadness	4.05 (1.73)	5.87 (1.20)	6.62 (0.62)	2, 94	33.94	<.001
Perceived tears	2.11 (1.35)	3.68 (1.62)	5.28 (1.39)	2, 94	38.86	<.001
Observer's self-reported cognitive inferences						
Warmth	3.11 (2.22)	3.55 (1.91)	5.76 (1.88)	2, 94	15.23	<.001
Competence	4.08 (1.85)	3.71 (1.97)	4.76 (2.17)	2, 94	2.15	.123
Observer's self-reported affective responses						
Compassion	3.12 (1.54)	4.29 (1.27)	5.03 (1.59)	2, 94	14.19	<.001
Discomfort	2.12 (1.10)	2.03 (1.01)	2.53 (1.31)	2, 94	1.67	.194
Trust	2.84 (1.18)	2.79 (1.14)	3.41 (1.48)	2, 94	2.28	.108
Anger	1.41 (0.83)	1.55 (1.03)	2.10 (1.68)	2, 94	2.95	.057
Rejection	1.43 (0.65)	1.45 (0.77)	1.17 (0.47)	2, 94	1.78	.174
Observer's self-reported behavioral intentions						
Approach intentions	3.54 (1.60)	4.15 (1.63)	5.21 (1.42)	2, 94	9.38	<.001
Avoidance intentions	1.47 (0.63)	1.36 (0.52)	1.41 (0.66)	2, 94	0.32	.727

independent variable in our model, we used a contrast variable, where tears were coded as 2, and the neutral and sadness conditions as -1 each (thus summing up to 0). All mediation analyses from Study 1 are reported in online supplemental materials, Section D, Tables S6–S9.

The bootstrap analysis showed a significant indirect effect of tears (compared with nontearful displays) on reported approach tendencies through inferences of warmth ( $B = .30$ ,  $SE = .10$ , 95% CI [.153, .536]) but not via competence ( $B = .01$ ,  $SE = .03$ , 95% CI [-.064, .071]). Tears increased perceived warmth and therefore led to more willingness to offer emotional support. We did not find significant indirect effects for avoidance intentions (these exploratory results are reported in online supplemental materials, Section D).<sup>4</sup>

### **Indirect Effects of Tears on Behavioral Intentions Through Affective Responses**

Felt compassion and discomfort were expected to explain the effects of tears on self-reported approach intentions. The bootstrap analysis indicated indirect effects via felt compassion ( $B = .21$ ,  $SE = .07$ , 95% CI [.085, .350]) but not via discomfort ( $B = .03$ ,  $SE = .03$ , 95% CI [-.007, .101]). That is, tears increased compassion and thus intention to offer the immigrant person comfort. We did not observe significant indirect effects of tears of avoidance intentions.

### **Discussion**

Study 1 provided evidence for our hypothesis that the presence of tears, as a universal signal, would enhance inferences of the warmth of a member of a socially underprivileged group (i.e., a Romanian male). In contrast, the presence of tears did not influence evaluations of an immigrant person's competence. Although tears were unrelated to perceptions of competence, our data suggests that it is an expression of sadness and not tears that drives lower attributions of competence (perceived competence was lower in the sadness condition compared with the tearful display; see online

supplemental materials Section B, Table S4 for planned contrasts). These findings are in line with research showing that tearful individuals are viewed as less competent because of the sadness they express (van de Ven et al., 2017; Zickfeld et al., 2018). Further, the findings of Study 1 indicated that, compared with nontearful displays, observers react toward a tearful immigrant with more compassion, but not necessarily with more discomfort (or other emotions such as anger or trust). Finally, we found that observers were more eager to approach and comfort a tearful than a nontearful immigrant, and this was due to an increase in inferences of warmth and reactions of compassion. Hence, prosocial reactions to the immigrant's tears seem driven by an altruistic motivation to comfort rather than the egoistic desire to reduce experience of discomfort. In Study 2, we wanted to replicate these effects with a culturally more distant and socially less valuable immigrant group in the context of this study, namely, Moroccans. We also compared the effects of tears with a positive social cue: smiling.

## **Study 2**

### **Method**

#### **Participants and Procedure**

One-hundred and 57 undergraduate students who were attending psychology courses were invited to fill in a web-based questionnaire during the class, but the final data set consisted of Spanish native-born 150 participants (all Caucasian; 87% females;  $M_{\text{age}} = 21.45$ ,  $SD = 5.53$ ). Five non-native-born participants were excluded from analyses, as well as one participant with extreme

<sup>4</sup>Indirect effects via cognitive inferences in Study 1 remained statistically significant when we also accounted for the target's perceived sadness. We also found a significant indirect effect of tears on approach intentions via perceived sadness (see online supplemental materials, Section E, Table S22).

responses on prejudice measures (not reported in this article). One participant did not fill in most parts of the survey.

We randomly assigned participants to one of four experimental conditions in which they were exposed to a photograph of a Moroccan (presented as Khalid, who was 27 years old and had lived in Spain for 4 years). The emotional stimuli applied were images of the same individual extracted from a standardized Radboud Faces Database (Langner et al., 2010; see online supplemental materials, Section G, Figure S2, and procedure described in Study 1), including portraits of Moroccan males.<sup>5</sup> Three conditions represented a neutral ( $n = 40$ ), happy ( $n = 37$ ), or sad expression ( $n = 32$ ) whereas in the fourth condition the target was shedding tears ( $n = 41$ ).

### Measures

Unless otherwise indicated, all measures used a 7-point Likert scale from 1 (*not at all*) to 7 (*a lot*). We assessed the attribution of emotions to the four facial displays as a manipulation check. Participants rated to what extent the face on the photograph expressed sadness, happiness, or was showing tears. We captured the observer's cognitive inferences with two items, one referring to warmth and the other to competence as in Study 1. Participants also responded to what extent they felt different emotions when seeing the photograph, including compassion ("compassion", "sadness",  $r = .82$ ), discomfort ("discomfort", "tension",  $r = .52$ ), trust ("trust", "liking",  $r = .75$ ), anger ("anger", "outrage",  $r = .64$ ), and rejection ("rejection", "disgust",  $r = .61$ ). We also measured approach ( $r = .84$ ) and avoidance ( $r = .51$ ) tendencies toward the immigrant person as in Study 1.

### Results

Simple means, standard deviations, and ANOVA statistics are presented in Table 2. Bivariate correlations are shown in online supplemental materials, Section A (Table S2).

#### Manipulation Checks

The tearful target was perceived as conveying more sadness but less happiness compared with the happy and neutral displays but did not differ from the sad one (planned comparisons and effect sizes can be seen in online supplemental materials, Section B, Table S4). Observers also agreed more that the tearful target was crying compared with the other three conditions.

#### Self-Reported Cognitive Inferences

Results showed that tears reinforced perceptions of warmth compared with the sadness but not the neutral and happiness displays, thus suggesting that tears cancel out the effects of sadness. There were no statistically significant differences between tears and neutral, happiness, and sadness expressions in inferences of competence, but observers reacted with more attributions of competence in the happiness condition compared with the sadness display.

#### Self-Reported Affective Responses

An expected effect of experimental condition on compassion was found, with more compassion felt in response to the target's tears compared with all three nontearful displays (an additive effect). We also found that observers felt more discomfort and less trust in response to tears compared with the happiness condition, but the mean difference did not reach statistical significance in the case of

the sadness or neutral condition. Participants also expressed more anger toward the tearful individual compared with the happiness and neutral condition but not more than in response to the sadness display. No effects were detected in the case of rejection.

#### Self-Reported Behavioral Intentions

We also observed that participants were more prone to approach but not avoid the tearful than neutral and sadness (but not happiness) displays.

#### Indirect Effects of Emotional Tears on Behavioral Intentions Through Cognitive Inferences

As in Study 1, we created a contrast variable where tears were coded as 2, and each of the remaining two conditions as  $-1$  (the smile condition was removed from analyses for comparability with the other two studies). This contrast variable was subsequently used as a predictor in the analyses of indirect effects. All mediation analyses from Study 2 are reported in online supplemental materials, Section D, Tables S10–S13.

The bootstrap analysis yielded a significant indirect effect of tears (compared with nontearful conditions) through warmth ( $B = .07$ ,  $SE = .05$ , 95% CI [.007, .183]) but not competence ( $B = .01$ ,  $SE = .03$ , 95% CI [−.030, .077]) on willingness to approach the target.<sup>6</sup> No significant effects were detected for avoidance intentions (see online supplemental materials, Section D).

#### Indirect Effects of Emotional Tears on Behavioral Intentions Through Affective Responses

As in Study 1, we found that felt compassion ( $B = .19$ ,  $SE = .06$ , 95% CI [.089, .307]), but not discomfort ( $B = −.03$ ,  $SE = .03$ , 95% CI [−.094, .009]), explained the effects of tears on approach tendencies toward the target, compared with the nontearful conditions. We also, unexpectedly, found a significant indirect effect of tears on avoidance intentions indirectly via observers' discomfort ( $B = .07$ ,  $SE = .03$ , 95% CI [.009, .145], see online supplemental materials, Section D, for details).

### Discussion

Study 2 largely replicated findings from Study 1. The effects of tears on impressions of warmth were found to generalize over a member of a different cultural group (i.e., a Moroccan male). Interestingly, we have provided additional evidence on the nature of the link between tears and inferences of warmth. The judgment of the immigrant person's warmth was similar irrespectively of whether the person was shedding tears or smiling. This similarity can be explained in part by the fact that, like smiling (Van Kleef, 2010), emotional tears communicate affiliative intentions in general. In contrast, a tearful expression exclusively provokes reactions of compassion compared with all other emotional displays,

<sup>5</sup> Information about pretests carried out to examine the quality of digital manipulation of tears in Study 2 is presented in online supplemental materials, Section H.

<sup>6</sup> Indirect effects via cognitive inferences in Study 2 remained statistically significant when we additionally accounted for the perceived sadness of the target. We also found a significant indirect effect of tears on approach intentions via perceived sadness (see online supplemental materials, Section E, Table S23).

**Table 2**

*The Effects of Emotional Tears on Observer's Self-Reported Cognitive Judgments, Affective Responses, and Behavioral Intentions: Analysis of Variance, Simple Means, and Standard Deviations in Study 2*

Measure	Neutral <i>M</i> ( <i>SD</i> )	Happiness <i>M</i> ( <i>SD</i> )	Sadness <i>M</i> ( <i>SD</i> )	Tears <i>M</i> ( <i>SD</i> )	<i>df</i>	<i>F</i>	<i>p</i>
Manipulation checks (attributed emotions)							
Perceived sadness	2.67 (1.56)	1.41 (0.83)	5.34 (1.43)	5.76 (1.48)	3, 143	89.21	<.001
Perceived tears	1.29 (0.69)	1.22 (0.63)	2.50 (1.46)	6.10 (1.34)	3, 143	175.59	<.001
Perceived happiness	2.79 (1.42)	5.57 (1.42)	1.25 (0.76)	1.05 (0.22)	3, 145	138.01	<.001
Observer's self-reported cognitive inferences							
Warmth	3.50 (2.00)	4.95 (2.38)	2.19 (1.40)	3.92 (2.21)	3, 145	10.61	<.001
Competence	4.37 (1.93)	4.65 (2.31)	3.19 (1.86)	4.10 (2.33)	3, 145	3.03	.033
Observer's self-reported affective responses							
Compassion	2.24 (1.41)	1.76 (1.08)	3.19 (1.86)	4.17 (1.63)	3, 146	19.61	<.001
Discomfort	1.79 (1.17)	1.31 (0.62)	1.91 (1.19)	2.40 (1.28)	3, 146	6.32	<.001
Trust	3.27 (1.34)	4.03 (1.56)	2.26 (1.06)	2.52 (1.55)	3, 146	11.46	<.001
Anger	1.11 (0.31)	1.07 (0.34)	1.16 (0.35)	1.54 (1.03)	3, 146	4.98	.003
Rejection	1.23 (0.73)	1.07 (0.34)	1.26 (.053)	1.30 (0.65)	3, 146	1.16	.328
Observer's self-reported behavioral intentions							
Approach intentions	3.16 (1.28)	3.38 (1.53)	3.16 (1.36)	4.12 (1.59)	3, 146	3.88	.011
Avoidance intentions	1.71 (1.13)	1.68 (0.94)	2.08 (1.09)	2.00 (1.25)	3, 146	1.20	.312

and thus seems to be a specific signal indicating a person's suffering. Tears also activated more emotion of anger, compared with the neutral and happiness but not sadness expression. However, we did not detect the effects of tears on felt discomfort, corroborating findings from Study 1. It was the smile that made observers feel more comfortable in response to the immigrant person. Confirming results from Study 1, we observed again that tears elicited more approach tendencies than a neutral or sad expression, but now we also established no differences compared with the happiness display. This suggests that the tendency to approach is not a specific response to crying but rather an affiliative behavioral tendency. Finally, the analyses confirmed that inferences of warmth and reactions of compassion are the explanatory mechanisms in the link between tears and approach intentions.

In Study 3, we tested if people would respond in the same way toward members of socially disadvantaged outgroups (in this case, Syrians) and their ingroup members. We were also interested in the effects of tears not only on situation-specific tendencies to approach and comfort the crier but also on prosocial responses, such as disposition to make a momentary donation and volunteer in an organization helping immigrants. In addition, we improved the measurement of warmth and competence by including multiple items, as well as covered a wider array of self-transcendent emotions (tenderness, feeling moved), and we differentiated pity from compassion. Finally, given that Studies 1 and 2 were underpowered and to guarantee that we have enough statistical power to detect smaller effects, we have used a more robust sample in Study 3 and estimated the sample size a priori.

### Study 3

#### Method

A nationwide and diverse sample of 323 participants was recruited through Qualtrics data agency to participate in the study.

For Study 3, we conducted power analysis with G\*Power (Faul et al., 2007) based on effect sizes obtained in Study 1 and 2 that were in the expected direction but did not reach statistical significance such as the effect of tears, compared with the sadness display, on felt discomfort ( $d = .39$  and  $d = .43$ , respectively). Using the smaller effect size ( $d = .39$ , which is equivalent to  $f = .21$ ) and considering the standard cut-off points (i.e., alpha at .05 and power at .80), a power analysis revealed that a sample of 222 participants would be required in an ANOVA with a  $2 \times 3$  design to detect a significant main effect of a three-level independent variable or a significant interaction effect, and with 300 participants we would reach power at .90. So, we stopped the data collection once this number was surpassed.

Twenty participants who were not born in Spain or two participants who had missing data on this variable were excluded from the analysis, giving the total sample of 299 participants (49.2% female;  $M_{\text{age}} = 36.31$ ,  $SD = 10.60$ ).<sup>7</sup> Participants were invited to fill in a web-based questionnaire and were randomly assigned to one of the six experimental conditions ( $2 \times 3$  design) in which they were exposed to a photograph of a Caucasian male (same as in Study 1). Following a standard procedure in social psychological research, we manipulated group membership by providing participants with different information about the country of origin or

<sup>7</sup> We used a two-way ANOVA to test for interaction effects between expression (neutral vs. sadness vs. tears) and participants' gender and on dependent variables in Study 3 as well. We did not find significant interactions between expression and gender. However, a three-way ANOVA with expression, gender, and additionally group category showed a consistent two-way interaction between gender and group category on all dependent variables, except for felt discomfort, as well as avoidance, donation, and volunteering intentions. Female participants tended to report more positive emotions (compassion-related emotions and trust) and more willing to approach and offer emotional comfort in response to immigrant versus nonimmigrant target, whereas male participants reacted more positively toward the nonimmigrant than the immigrant target. No three-way significant interactions were detected.



the name of the target in the disadvantaged (immigrant) and advantaged (nonimmigrant) group condition (see Stürmer et al., 2006; van der Schalk et al., 2011; Zhao & Biernat, 2017 for similar procedures). That is, the target was presented as either member of one's group (Pablo born in the same province as the respondent) or an immigrant person (Sami, born in Syria) with either a neutral, sad, or tearful display, with the number of participants per condition ranging from 48 to 52. In the context of Spain, it was possible to frame the same photograph as an image of an immigrant versus a nonimmigrant. The photograph was accompanied by the following description: "Pablo is from the same province as you/Sami is from Syria. He has just moved to the city where you live and is starting to settle." Afterward, participants were asked to briefly describe the photograph. We measured the time participants spent looking at the photo and describing it. Next, participants were asked to fill in a series of measures, all placed on a scale from 1 (*not at all/completely disagree*) to 7 (*a lot/completely agree*), unless otherwise indicated.

To check the effectiveness of manipulation, we measured the attribution of emotions (neutral, sadness, or happiness), as well as perceptions of group membership (4 items, e.g., "He belongs to the same ethnic or cultural groups as me";  $\alpha = .77$ , adapted from Hein et al., 2010). Three items were used to measure warmth (e.g., "friendly";  $\alpha = .89$ ), and other three covered competence (e.g., "skilled";  $\alpha = .89$ ). We also assessed affective responses of compassion ("compassionate"; "empathetic";  $r = .60$ ), tenderness ("warmhearted"; "kind";  $r = .64$ ), feeling moved ("touched"; "moved";  $r = .68$ ), pity ("pitiful"; "regretful"; "sad";  $\alpha = .91$ ), discomfort ("tense"; "nervous"; "stressed";  $\alpha = .88$ ), trust ("trusting"; "confiding";  $r = .51$ ), and anger ("angry"; "irritated"; "outraged";  $\alpha = .84$ ). Approach ( $r = .88$ ) and avoidance tendencies ( $r = .62$ ) were measured as in Study 1. We also measured intentions to donate (two items, "donating money to finance his professional training"; "donating money to financial aid to favor his immediate hiring";  $r = .91$ ) and volunteer in order to help the man on the photograph (three items, "help him do paperwork at the bank"; "assist him in the official business procedures"; "help him register in your municipality";  $\alpha = .95$ ).

## Results

Simple means, standard deviations, and two-factor ANOVA statistics are presented in Table 3. Bivariate correlations and estimated marginal means with standard errors are shown in online supplemental materials (Section E, Table S3, and Section C, Table S5, respectively).

### Manipulation Checks

Two-factor ANOVA (group category: immigrant vs. Nonimmigrant  $\times$  Expression: neutral, sadness, tears) showed that, as expected, the nonimmigrant target was perceived as belonging to one's group more than the immigrant (see online supplemental materials, Section B, Table S4, for planned comparisons and effect sizes). Also, the tearful target was perceived as significantly sadder than both nontearful targets. The tearful individual was also perceived as less neutral than the neutral and the sadness displays.

### Self-Reported Cognitive Inferences

Results revealed a significant effect of expression but not of group category or interaction on perceptions of warmth and competence. Participants perceived the tearful person as warmer compared with the nontearful displays and as more competent compared with the sadness but not the neutral condition.

### Self-Reported Affective Responses

We found a significant effect of the expression on compassion, tenderness, feeling moved, pity, and anger. Participants responded with more compassion, tenderness, feeling moved, and pity to the tearful than to the nontearful displays. Observers felt more anger in response to tears than the sadness display, but not more than in the neutral one. We did not find significant effects of expression on discomfort or trust, and no significant effects of group category or interactions were detected on any of the emotions measured.

### Self-Reported Behavioral Intentions

Two-factor ANOVA also showed that observers were more willing to approach, but not avoid, the tearful target than the nontearful ones. No significant group category or interaction effects were found. There was also a significant effect of the expression on donating but not on volunteering intentions. Participants were more willing to donate money to help the tearful person, as compared with the sadness condition but the effect did not reach statistical significance for the neutral display. No significant group category or interaction effects were observed.

### Indirect Effects of Emotional Tears on Behavioral Intentions Through Cognitive Inferences

To test the indirect effects with PROCESS, we used a contrast variable as a predictor, where the tears were coded as 2, and both sadness and neutral conditions as  $-1$ . We introduced the group category as a covariate in the model (but not the interaction term, given that we did not detect any statistically significant interactions). Complete mediation analyses from Study 3 are reported in online supplemental materials, Section D, Tables S14–S21.

The bootstrap analysis yielded a significant indirect effect of tears (compared with nontearful conditions) through both higher warmth ( $B = .08$ ,  $SE = .03$ , 95% CI [.025, .154]) and higher competence ( $B = .04$ ,  $SE = .03$ , 95% CI [.003, .100]) on approach tendencies. No significant indirect effects were found in the case of avoidance intentions (see online supplemental materials, Section D). Only warmth was a significant mediator of the effects of tears on donation intentions ( $B = .06$ ,  $SE = .03$ , 95% CI [.014, .127]). The indirect effect of competence in turn included zero ( $B = .02$ ,  $SE = .02$ , 95% CI [-.009, .064]). We also tested for an indirect effect of tears on volunteering intentions. Tears showed a significant effect on volunteering intentions through competence ( $B = .04$ ,  $SE = .03$ , 95% CI [.002, .112]) but not through warmth ( $B = .04$ ,  $SE = .03$ , 95% CI [-.010, .105]).

### Indirect Effects of Emotional Tears on Behavioral Intentions Through Affective Responses

Given that the emotions of compassion, tenderness, and feeling moved correlated strongly with each other, we created a common measure of self-transcendent, compassion-related emotions. We

**Table 3**

*The Effects of Emotional Tears on Observer's Self-Reported Cognitive Judgments, Affective Responses, and Behavioral Intentions: Two-Factor ANOVAs, Simple Means, and Standard Deviations in Study 3*

Measure	Group category	Neutral <i>M</i> ( <i>SD</i> )	Sadness <i>M</i> ( <i>SD</i> )	Tears <i>M</i> ( <i>SD</i> )	<i>df</i>	<i>F</i>	<i>p</i>	
Manipulation checks (attributed group membership and emotions)								
Group membership	Nonimmigrant	4.41 (1.10)	4.20 (1.31)	4.57 (1.06)	1	1, 292	0.75	.474
					2	2, 292	73.47	<.001
	Immigrant	3.06 (1.40)	3.18 (1.10)	3.22 (1.48)	3	2, 292	0.58	.562
Perceived neutrality	Nonimmigrant	3.63 (1.56)	2.54 (1.34)	2.00 (1.41)	1	1, 292	25.95	<.001
					2	2, 292	0.01	.917
	Immigrant	3.42 (1.74)	2.75 (1.48)	2.06 (1.33)	3	2, 292	0.52	.595
Perceived sadness	Nonimmigrant	4.87 (1.43)	5.88 (1.32)	6.44 (0.91)	1	1, 293	33.31	<.001
					2	2, 293	1.52	.219
	Immigrant	4.54 (2.03)	5.67 (1.63)	6.34 (1.38)	3	2, 293	0.15	.865
Observer's self-reported cognitive inferences								
Warmth	Nonimmigrant	3.66 (1.14)	3.78 (1.26)	4.25 (1.13)	1	1, 293	4.97	.008
					2	2, 293	0.58	.448
	Immigrant	3.83 (1.61)	3.88 (1.37)	4.33 (1.31)	3	2, 293	0.39	.962
Competence	Nonimmigrant	4.04 (1.05)	3.67 (1.25)	4.22 (1.00)	1	1, 292	3.99	.020
					2	2, 292	0.01	.926
	Immigrant	4.01(1.40)	3.75 (1.36)	4.20 (1.42)	3	2, 292	0.06	.944
Observer's self-reported affective responses								
Compassion	Nonimmigrant	4.19 (1.16)	4.65 (1.51)	5.15 (1.30)	1	1, 293	12.07	<.001
					2	2, 293	1.15	.285
	Immigrant	4.07 (1.57)	4.32(1.50)	5.07 (1.51)	3	2, 293	0.22	.807
Tenderness	Nonimmigrant	3.64 (1.15)	3.93 (1.72)	4.44 (1.21)	1	1, 293	9.99	<.001
					2	2, 293	0.02	.901
	Immigrant	3.62 (1.64)	3.75(1.40)	4.58 (1.54)	3	2, 293	0.30	.745
Feeling moved	Nonimmigrant	3.90 (1.48)	4.24 (1.75)	5.09 (1.22)	1	1, 293	15.84	<.001
					2	2, 293	0.05	.818
	Immigrant	3.92 (1.71)	4.10 (1.52)	5.08 (1.58)	3	2, 293	0.06	.939
Pity	Nonimmigrant	4.18 (1.39)	4.79 (1.64)	5.43 (1.16)	1	1, 293	21.84	<.001
					2	2, 293	0.30	.583
	Immigrant	4.03 (1.78)	4.51 (1.60)	5.57 (1.45)	3	2, 293	0.50	.606
Discomfort	Nonimmigrant	3.24 (1.44)	3.12 (1.61)	3.07 (1.55)	1	1, 292	0.01	.987
					2	2, 292	0.51	.478
	Immigrant	2.95 (1.69)	3.01 (1.53)	3.07 (1.72)	3	2, 292	0.20	.818
Trust	Nonimmigrant	3.36 (1.13)	3.53 (1.43)	3.72 (1.03)	1	1, 293	0.67	.513
					2	2, 293	0.02	.880
	Immigrant	3.62 (1.58)	3.43 (1.45)	3.63 (1.41)	3	2, 293	0.60	.550
Anger	Nonimmigrant	3.08 (1.47)	2.71 (1.45)	3.29 (1.43)	1	1, 293	3.92	.021
					2	2, 293	0.40	.527
	Immigrant	2.93 (1.65)	2.93 (1.59)	3.57 (1.82)	3	2, 293	0.55	.578
Observer's self-reported behavioral intentions								
Approach intentions	Nonimmigrant	3.96 (1.55)	3.94 (1.72)	4.80 (1.37)	1	1, 293	8.45	<.001
					2	2, 293	0.03	.873
	Immigrant	3.91 (1.92)	3.94 (1.72)	4.76 (1.72)	3	2, 293	0.01	.994
Avoidance intentions	Nonimmigrant	3.19 (1.59)	2.86 (1.53)	2.77 (1.57)	1	1, 293	0.62	.539
					2	2, 293	0.38	.539
	Immigrant	3.05 (1.81)	3.18 (1.66)	2.95 (1.87)	3	2, 293	0.50	.607
Donation intentions	Nonimmigrant	3.41 (1.48)	3.20 (1.71)	3.88 (1.62)	1	1, 293	5.26	.006
					2	2, 293	2.91	.089
	Immigrant	3.06 (1.83)	2.80 (1.53)	3.64 (1.87)	3	2, 293	0.06	.941
Volunteering intentions	Nonimmigrant	3.75 (1.59)	3.78 (1.88)	4.06 (1.71)	1	1, 293	1.97	.141
					2	2, 293	2.43	.121
	Immigrant	3.50 (1.96)	3.19 (1.81)	3.91 (2.04)	3	2, 293	0.40	.670

*Note.* 1 = Expression: neutral versus sadness versus tears; 2 = Target: nonimmigrant versus immigrant; 3 = Interaction Expression × Target.

thus tested again the indirect effects via other-oriented (compassion-related) and self-focused (discomfort) emotions. The bootstrap analysis showed a significant indirect effect of tears (compared with nontearful displays) on approach but also avoidance tendencies through compassion-related emotions ( $B = .27$ ,  $SE = .05$ , 95% CI [.176, .366] and  $B = -.10$ ,  $SE = .03$ , 95% CI [-.173, -.044], respectively) but not via discomfort ( $B = .00$ ,  $SE = .003$ , 95% CI [-.006, .008] and  $B = -.002$ ,  $SE = .03$ , 95% CI [-.066, .058], respectively).

Indirect effects of tears on donation intentions were also significant via compassion-related emotions ( $B = .15$ ,  $SE = .04$ , 95% CI [.090, .224]) but not via discomfort ( $B = .00$ ,  $SE = .01$ , 95% CI [-.025, .026]). We again tested indirect effects on volunteering intentions because the total effect (tearful vs. nontearful expressions) was significant,  $B = .15$ ,  $SE = .08$ ,  $p = .045$ , 95% CI [.003, .298], though small. Tears showed a significant indirect effect on volunteering intentions via compassion-related emotions ( $B = .19$ ,  $SE = .04$ , 95% CI [.117, .281]) but not through felt discomfort ( $B = .00$ ,  $SE = .01$ , 95% CI [-.012, .015]).<sup>8</sup>

## Discussion

In Study 3, we further extended our findings from the first two experiments by testing the effects of tears shed by members of socially disadvantaged groups as compared with one's group members. Tears were proved to be a universal affiliative cue that increases judgments of warmth, independently of group category. In contrast, unlike in Study 1 and 2, in which tears did not affect perceptions of competence, sad displays decreased perceptions of competence whereas tears seem to have attenuated this effect relative to the neutral display. Further, corroborating findings from previous experiments, compared with nontearful displays, observers felt more other-suffering emotions of compassion, as well as pity, tenderness, and *kama muta* (i.e., feeling moved) toward the tearful person. The emotion of anger was higher in the tearful condition compared with the sadness condition, which may reflect moral anger felt about the situation of the target rather than anger oriented toward the person.

Importantly, participants were more willing to approach and comfort the crier, as well as to donate money (but not to volunteer in an organization helping immigrants) to help the tearful person, as compared with the display of sadness. Inferences of warmth and self-transcendent, compassion-related emotions were explanatory mechanisms in this link, suggesting that observers' prosociality in response to someone's tears is driven by both the target's general affiliative intentions (expressed through warmth) and motivation to reduce the other person's suffering (accompanied by felt compassion). Although we did not find the main effects of tears through a two-factor analysis of variance, we did observe that tears, as compared with both nontearful expressions, increase observers' volunteering intentions indirectly through inferences of competence and activation of self-transcendent emotions.

## Integrative Data Analysis

Given the small sample sizes in Studies 1 and 2, we also analyzed our pooled data from three experiments using the integrative data analysis (IDA; Curran & Hussong, 2009). This strategy has been suggested to have several advantages, including increasing statistical power. It also allows controlling between-study heterogeneity resulting from characteristics that uniquely define each

study, such as differences in sampling techniques, design characteristics, or measurement tools, and thus testing the generalizability and reliability of findings. For this purpose, the effects of assignment in each study and its interactions with the rest of the independent variables are additionally estimated in the model. Accordingly, we performed the analyses using dependent variables in common and introducing the target (i.e., Romanian, Moroccan, Syrian, Spaniard), and manipulation of tears (vs. sad and neutral nontearful expressions) as independent variables, as well as interactions between them in the model (please see online supplemental materials Section F, Table S27, for all statistical tests).

## Manipulation Checks

We observed a significant effect of tears on attributions of sadness. The tearful target was perceived as conveying more sadness than both nontearful expressions (including sadness), but this effect was more pronounced for the Romanian and less pronounced for the Moroccan target (a significant interaction effect). In addition, there was a significant target effect, with less sadness being attributed to the Moroccan immigrant than all other targets.

## Self-Reported Cognitive Inferences

The analyses also revealed a significant effect of tears, target, and Tears  $\times$  Target interaction on evaluations of warmth. The tearful target was evaluated as warmer than nontearful expression, but this effect was more pronounced for the Romanian target compared with both Muslim (Moroccan and Syrian) and the nonimmigrant target also, the Moroccan target was perceived generally as colder than all other targets. There was also a significant effect of tears on perceptions of competence, with the tearful target regarded as more competent than the sad target (but not the neutral one). No significant effect of target group or interaction was detected, suggesting that the influence of tears held constant across all studies and that the targets did not differ in terms of competence attributed to them.

## Self-Reported Affective Responses

We also found that observers felt more compassion toward the tearful than the nontearful targets, and this held constant across all studies (no significant interaction was detected). There was also a significant target effect: the Moroccan immigrant awoke less compassion compared with other group categories, and the Romanian target activated less compassion than the nonimmigrant. Corroborating findings from the independent studies, tears did not activate more discomfort. Yet, there was a significant effect of the target group on discomfort: both the Syrian and the nonimmigrant target activated more discomfort than the Moroccan and Romanian targets.

We also tested in an exploratory way the impact of tears on trust and anger. Whereas the main effect did not reach statistical significance, there was a significant target and interaction effect,

<sup>8</sup> Indirect effects via cognitive inferences in Study 3 remained statistically significant when we additionally accounted for the perceived sadness of the target. We also found a significant indirect effect of tears on approach and helping intentions via perceived sadness (see online supplemental materials, Section E, Tables S24–S25).

suggesting that the Syrian and the nonimmigrant target activated more trust than the Moroccan and the Romanian. The effect of expression was also more pronounced for these less trusted groups. We observed, in addition, significant effects of expression and target on anger. Observers felt more anger in response to tears compared with nontearful expressions, as well as in response to the Syrian and nonimmigrant target than in response to the Moroccan and Romanian target. No significant interaction was detected.

### Self-Reported Behavioral Intentions

We found a significant effect of the expression on intentions to approach (but not avoid) the tearful person. Observers were more willing to approach the tearful than the nontearful targets, and this effect held constant in strength across all studies (no statistically significant interaction effects were detected). There was a significant target effect on both approach and avoidance intentions, with the Moroccan target activating fewer approach tendencies compared with all other targets, and both the Syrian and the nonimmigrant targets facilitating more avoidance intentions compared with the other two targets (i.e., the Moroccan and Romanian).

### General Discussion

Tears are one of the strongest social signals (e.g., [Cornelius & Labott, 2001](#)), yet existing research has largely ignored their importance for shaping prosocial responses toward members of socially disadvantaged groups. Our findings suggest that the presence of emotional tears impacts responses to the suffering expressed by people from disadvantaged ethnocultural groups. Specifically, we have experimentally shown that immigrant males shedding emotional tears are perceived as warmer but not as less competent than those with nontearful expressions (in comparison, sadness was found to decrease their perceived competence). Moreover, compared with other displays, tears elicit compassion (or, more broadly, compassion-related emotions) and lead to a greater willingness to approach an immigrant person. In contrast, observers do not react to tears with more discomfort or trust, and neither do they avoid contact with tearful immigrants. An integrative data analysis supported these findings. Study 3 further corroborated the help-eliciting function of tears beyond a mere readiness to offer emotional support. We found that people are more prone to make a monetary donation to assist an immigrant person in need, although not volunteer their time. Both cognitive inferences (i.e., perceived warmth) and affective processes (i.e., felt compassion) were explanatory mechanisms in the link between tears and helping intentions, both for immigrants and ingroup fellows. Our research extends the existing literature by showing how facial expressions impact perception ([Menges & Kilduff, 2015](#)), emotional experience, and willingness to respond prosocially toward immigrants.

### Cognitive Responses to Disadvantaged Groups' Tears

Complementing findings from earlier studies (e.g., [Hendriks & Vingerhoets, 2006](#); [van de Ven et al., 2017](#); [Zickfeld & Schubert, 2018](#)), our experimental research has shown that members of a socially disadvantaged group who signal their suffering through tears are perceived as warmer. Warmth is argued to reveal one's intentions toward others ([Fiske et al., 2002](#)) and helps to

distinguish between cooperative and threatening relations. Interestingly, both emotional tears and a smile (Study 2) were considered manifestations of warmth, suggesting that tears, just as smiling, are generally interpreted as an affiliative social cue (e.g., [Scharlemann et al., 2001](#)). We also found that group membership was irrelevant for judgments of warmth. In Study 3, the effects of tears were equal in strength both in the case of the disadvantaged (immigrants) and the advantaged (nonimmigrants) group.

It is worth noting that, in Study 3, we did not find differences in cognitive evaluations of (and in affective responses to) the two different group categories (i.e., an immigrant and nonimmigrant target) in the neutral condition. Nevertheless, we detected slight differences when comparing immigrant groups from Studies 1 and 2, that is, voluntary immigrants (as compared with an involuntary immigrant, that is, an asylum seeker from Syria), with a nonimmigrant target. More precisely, an IDA showed a significant interaction effect in evaluations of warmth and the group category, suggesting a more pronounced intergroup bias (i.e., lower attributions of warmth) for a Romanian (voluntary) immigrant than in the case of a Syrian (involuntary) immigrant. Participants in our research also seem to feel less trust (a proxy for intergroup bias) toward a Romanian and a Moroccan immigrant, compared with both a Syrian and a nonimmigrant target. The effect of tears was also more pronounced for these groups of voluntary immigrants. In addition, although examining the effects of sadness was not a primary aim of this research, our data also suggest that facial displays of sadness (as compared with a neutral expression) decrease perceptions of immigrants' warmth. This result is preoccupying, given that the predominant image of immigration in mass media frequently conveys sadness and helplessness.

Our findings regarding the perceptions of competence were less coherent across the three studies but clarified with additional integrative analyses. Namely, in the pooled data we found that immigrants (and nonimmigrants) with tearful expressions are regarded as more competent compared with those who manifest sadness without emotional tears. This result differs from earlier studies showing that the presence of tears reduces ([van de Ven et al., 2017](#); [Zickfeld et al., 2018](#); their Study 1) or does not influence perceptions of competence ([Zickfeld et al., 2018](#); their Study 2). Nonetheless, one needs to consider that, in contrast to previous research in which tears were digitally removed, and both male and female targets were used, we generated our experimental stimuli by adding visible tears to male faces with sad expressions. The standardized images expressing sadness were also used as a control condition, which can explain why perceptions of competence augmented for tears compared with the sad but not the neutral display. Hence, immigrants are seen as less competent when expressing sadness rather than when displaying tears or no emotions. To some extent, these findings match the evidence showing that perceived sadness is key in understanding why tearful people can be evaluated as less competent ([van de Ven et al., 2017](#); [Zickfeld et al., 2018](#)). To properly disentangle the impact of tears from tearless manifestations of sadness and draw clearer conclusions, more research combining different stimuli and methods is needed ([Zickfeld et al., 2018](#)).

### Affective Responses to Disadvantaged Groups' Tears

Emotional tears are also expected to elicit specific affective responses toward immigrants. Our findings elucidate the role of compassion in interethnic and intergroup interactions in response to

suffering. Instead of emotional dissociation as the primary response to outgroup suffering (see Cikara et al., 2011), we propose that certain emotional cues such as tears may serve as an intervention to elicit empathic concern and care about ethnoculturally diverse others. Across all three studies, displaying tears has been shown to effectively awaken compassion—as well other self-transcendent, compassion-related emotions such as tenderness or feeling moved—toward members of socially disadvantaged groups such as immigrants. This effect held equivalent in strength across the immigrant and nonimmigrant group categories (Study 3). These findings are in line with evidence showing that shedding tears evokes sympathy (Zeifman & Brown, 2011) and makes people feel touched and moved (Zickfeld & Schubert, 2018) and socially connected to the crier (Vingerhoets et al., 2016). As well, the observed effect on felt compassion was unambiguously due to the presence of tears as compared with other affiliative displays such as smiling. Hence, our results suggest that compassion is a specific reaction to emotional tears, which can help to connect oneself with a suffering person (Neff & Vonk, 2009).

In contrast to some earlier findings (Hendriks et al., 2008; Hendriks & Vingerhoets, 2006), the presence of emotional tears was unrelated with felt discomfort, suggesting that people do not necessarily react to suffering communicated by tears with negative, passive emotions such as personal distress (Batson et al., 1983), also in response to members of underprivileged, or even perceived as threatening, social groups such as immigrants. We speculate that emotional tears, shown to communicate helplessness and facilitate feelings of connectedness with a tearful person (Vingerhoets et al., 2016), would attenuate perceiving sufferers as competitors (Cikara et al., 2011) and thus cancel the link between outgroup suffering and emotional indifference or even reactions of pleasure at others' pain (i.e., *schadenfreude*).

Finally, we also explored to what extent tears activate other affective reactions, including positive (trust) and negative (anger) emotions. We found that tears were unrelated to feeling trust toward an immigrant. Trust was only elicited by smiling, indicating that it is a more specific reaction to displays of happiness. In contrast, tears evoke more anger than neutral or happiness displays but not compared with expressions of sadness. Thus, whereas compassion, and other self-transcendent emotions, might be felt more specifically in responses to tears, anger might have been a more generalized reaction to a negative emotional state. We leave it to future research to further investigate the role of moral anger in response to negative emotional states expressed by members of socially disadvantaged groups.

### Self-Reported Behavioral Intentions Toward Disadvantaged Groups' Tears

Displaying tears also encourages observers to establish contact and offer members of a socially disadvantaged group comfort whereas does not prompt them to avoid contact, in line with previous evidence suggesting that tearful individuals, in general, elicit more approach behavior or intentions (Gračanin et al., 2018; Riem et al., 2017; van de Ven et al., 2017; Vingerhoets et al., 2016; Zickfeld & Schubert, 2018). In addition, these effects do not differ in strength between groups, including immigrants and nonimmigrants. This latter finding diverges from results recently obtained in a cross-cultural study involving 41 countries (Zickfeld et al., 2021), in which the support-eliciting effect of emotional tears was

slightly stronger for those targets with whom participants identified less. A possible reason for these differences is that we manipulated group membership by framing the ethnic background of the target, whereas the mentioned study measured membership more broadly as a degree of identification with the target. Importantly, we have additionally shown that tears motivate observers to engage in such aspects of prosociality as making donations to support initiatives oriented at providing immigrants professional training or assistance in finding employment (Study 3), that is, behavioral intentions that go beyond willingness to offer emotional support.

These effects do not generalize over intentions to volunteer time, such as helping with official procedures at the bank or registration at the municipality. That is, tears facilitate intentions to provide help through charity but not necessarily to get actively involved in helping an immigrant person to establish in one's city. These results are in line with the literature suggesting that the function of crying is to elicit in others comfort and help to alleviate pain (e.g., Hendriks & Vingerhoets, 2006; Hendriks et al., 2008)—“lowercase p” prosociality—but also point out an interesting direction: Tears may have a differential influence on certain types of prosocial behavior depending on whether observers are willing to facilitate the person being helped to achieve or regain power.

Thus, despite these promising results, questions remain. Are tears indeed more effective in promoting charity but not more engaging forms of prosocial behavior? In line with the intergroup helping as power relations model (e.g., Halabi et al., 2014), people are motivated to provide different types of help depending on power dynamics between the helpers and those in need of assistance. Considering this, it is plausible that tears would encourage more dependency-oriented help toward underprivileged groups among members of privileged social groups. That is, they would seek to provide an immediate solution for a problem while keeping the receivers in a situation of inferiority (e.g., donating food or providing temporary shelter). On the contrary, those more socially privileged may feel less inclined to provide autonomy-oriented help, which aims to provide tools, knowledge, and resources to entitle receivers to solve problems themselves (e.g., access to employment, housing, or regular incomes). This type of assistance implies empowering and improving the social position of those with a disadvantaged social status. It could thus challenge the status quo and thus threaten the position of the privileged. Future research should test this idea empirically.

### Explanatory Mechanisms in the Link Between Tears and Prosociality

Current research also has significant implications for the understanding of *why* emotional tears enhance prosociality. First, our findings corroborate the role judgments of warmth play in the relationship between tears in images of members of socially underprivileged groups and readiness to offer comfort, consistently with previous research showing similar effects of warmth (e.g., Reed et al., 2019; van de Ven et al., 2017; Vingerhoets et al., 2016) and recent evidence from 41 countries (Zickfeld et al., 2021). In addition, perceived warmth in response to tears also facilitates intentions to provide instrumental support (i.e., donate money to help immigrants), whereas the degree to which immigrants are perceived as competent is an explanatory mechanism of the effects of tears on

the disposition to volunteer time in an organization helping immigrants. This finding, while preliminary, raises intriguing questions regarding what motivates people to respond prosocially to somebody else's tears. A possible explanation for this differential effect might be that perception of warmth drives more paternalistic forms of aid such as charity. In contrast, attributions of ability and competence might be more relevant in facilitating autonomy-promoting assistance, such as helping an immigrant person to register at the municipality or with the paperwork at a bank (Nadler & Chernyak-Hai, 2014; Nadler & Halabi, 2006). However, it is important to stress that the degree of perceived competence of the target was affected by manifestations of sadness itself, whereas the presence of tears could have attenuated these adverse effects.

Felt compassion (or jointly self-transcendent emotions of compassion, tenderness, and feeling moved) is also a mechanism that enables the link between emotional tears and prosociality, including both immediate succor and intentions to provide more instrumental help such as making a monetary donation (but not volunteering time). Yet, we did not detect similar effects via feelings of discomfort, which suggests that people are motivated to both establish contact with and to offer a tearful immigrant financial help due to altruistic motivations rather than to reduce distress experienced in the presence of someone's suffering (Batson et al., 1983).

Our findings point in an interesting direction and denote that felt compassion is more relevant than discomfort in promoting prosocial responses to tears. These findings are suggestive because previous studies have shown that people want to help tearful individuals to deal with their negative feelings (e.g., Hendriks et al., 2008; Hendriks & Vingerhoets, 2006) but no research has tested to what extent intentions to offer a tearful individual support may be driven by compassion or other self-transcendent emotions such as tenderness or feeling moved. Only recently, the data available from the mentioned cross-cultural study confirm that people are willing to comfort criers because of compassionate feelings (empathic concern) but not due to discomfort (personal distress) that a tearful person may cause (Zickfeld et al., 2021).

It is also worth noting that in two of three studies, and the integrative analyses, observers perceived tearful faces of immigrants to convey greater sadness compared with nontearful expressions, including expressions of sadness itself. Our results are consistent with the idea of a sadness-enhancing effect of tears (Balsters et al., 2013; Provine et al., 2009; Reed et al., 2015). Further, some research revealed that this sadness-enhancing effect is an explanatory mechanism of the interpersonal effects of tears, such as their impact on perceived competence (van de Ven et al., 2017; Zickfeld et al., 2018). Our exploratory post hoc analyses extend this research by showing that perceived sadness is an additional relevant explanatory mechanism in the link between tears and eliciting helping intentions across the three studies. These findings align with the recent cross-cultural evidence that perceived helplessness (as an operationalization for attributions of sadness) explains the influence of tears on the readiness to provide emotional support (Zickfeld et al., 2021). Notably, the indirect effects of warmth (and, in specific cases, competence) remained statistically significant even when we accounted for perceived sadness.

## Limitations and Future Research

Our findings should be interpreted with some limitations in mind. First, our sample in two studies largely consisted of women (85%–87% of participants were females) and included undergraduate students, and, consequently, our results are not representative of general society. Yet, consistently with previous evidence that the observer's gender does not influence social reactions to adult tears (Hendriks & Vingerhoets, 2006; van de Ven et al., 2017), we did not detect major effects of gender in Studies 1 and 2, and neither in Study 3 with a more diverse and gender-balanced sample. Also, the targets in our research were male, and our conclusions are limited to impression formation and responses to tearful male immigrants. However, some studies suggest that interpersonal effects of tears are even smaller for male than female targets (Cretser et al., 1982). Thus, our mostly strong effects of male tears gain importance as evidence for a universal interpersonal function of tears. Yet, one must consider that the stimuli were presented to participants without time constraints, which could have affected the strength of obtained effects. Future research should cover different types of gender identity and ethnocultural background (e.g., Latinx or Asian immigrants), thus providing additional external validity.

Our research has focused on certain types of affective and cognitive processes as explanatory mechanisms in the link between tears and self-reported behavioral intentions. Still, it is necessary to point out that there might be alternative processes at play. For instance, tears—as smiling and other nonverbal expressions of warmth—are considered typically human characteristics that encourage affinity and may serve as a powerful indicator of one's humanness. Humanness encompasses a wide array of human features, such as traits that are *uniquely* human (e.g., rationality, morality) or *naturally* human (e.g., emotionality, warmth; Haslam, 2006). Attribution of such human features may be particularly pertinent in intergroup context (Bastian & Haslam, 2011). Members of certain groups are often attributed lesser humanity than one's group, and these dehumanized groups receive less assistance in situations of suffering (Cuddy et al., 2007). Still, existing research has not examined to what extent tears are perceived as a uniquely human feature or a human nature trait and whether these characteristics explain the impact of tears on behaving prosocially.

In the case of members of unfamiliar social groups, it is also plausible to expect that emotional tears shift the perception of a person from being a member of another social group to being included in one's group category (possibly at a higher level of abstraction, as "a human"). Thus, the identification with all humanity could be another interesting intervening variable to take into account. Other moral emotions, such as group-based guilt or moral outrage, could be considered alternative affective mechanisms involved in the help-elicitation function of tears. Further investigation could include as well other types of behavioral intentions, such as willingness to establish friendship with or give an immigrant person employment, as well as test the influence of tears on actual prosocial behavior (i.e., sharing, donating, cooperating, volunteering) beyond self-reported intentions. Behavior directly affects social reality but measuring it has been one of the biggest challenges in social sciences (Baumeister et al., 2007).

Contextual factors may also play a role in the help-eliciting function of tears. The images of tearful immigrant males used as

stimuli in our study leave it open to interpretation as to why the man is crying. Our participants likely attributed the presence of tears to a personal tragedy (e.g., losing family members on the journey or leaving family behind). However, the same tears might produce different reactions in a perceiver if they are shown as manipulative (e.g., during an immigration interview). In addition, whether we will offer a tearful person support or help may depend on the degree of familiarity with them. Tears shed by strangers may be seen as inappropriate and thus provoke avoidant reactions, whereas people are more likely to respond more favorably and comfort a crying friend (Hendriks et al., 2008). Future studies should manipulate the social context of crying by members of socially disadvantaged groups and test if tears fire back when perceived as manipulative or when the tearful target is unfamiliar (for more on the effects of social context, see Zickfeld et al., 2021).

The way people respond to tears could also be influenced by the interaction between the crier and another person. Mass media frequently narrate stories of immigrants (e.g., refugees) being helped or comforted by NGO volunteers or rescuers, but these stories can provoke mixed reactions (as was the case of Carola Rackete, the captain of the Sea Watch 3 ship, who rescued and tried to bring 53 emigrants drifting in the Mediterranean Sea to Italian ports). Nonetheless, no research to date has tested the interpersonal effects of tears depending on whether the tearful person is shown as being helped or comforted by another person or not. Observing members of one's group providing comfort to a member of a different group may be highly relevant in establishing a social norm for behaving prosocially.

## Conclusion

The present research addressed an important and timely issue: whether emotional tears can elicit solidarity, including offering emotional and instrumental support, with members of unfamiliar groups such as immigrants or asylum seekers. We have shown that tears are a universal affiliative cue that conveys warmth, arouses compassion (but also anger), and enhances intentions to offer emotional comfort and instrumental assistance to an immigrant person in need by means of monetary donations. Images of immigrants shedding tears activate similar responses as members of one's group. Future research should further investigate if our findings are extendable to other socially disadvantaged groups and broader social challenges, such as gender-based violence, bullying, terrorism, or mental illness stigma, providing a broader scope for future research. A more multidisciplinary approach, combining concepts and methods from experimental social psychology, intercultural communication, social and solidarity economy, is needed to address this challenge.

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