MY COMPETITOR'S TEARS MAKE ME SMILE: FACIAL MIMICRY AND COUNTER-MIMICRY OF OUT-GROUP EXPRESSIONS

Ursula Hess,[1] Christophe Blaison,[1] Tim van Lent,[2] Daniela Edreva,[1] and Agneta Fischer[2]

[1]Humboldt-Universität zu Berlin, [2]University of Amsterdam

The Intergroup Empathy Gap

The ability to understand and respond to the emotional messages of others is usually referred to as empathy. Emotion recognition accuracy is an index of cognitive empathy and facial mimicry is an index of affective empathy.

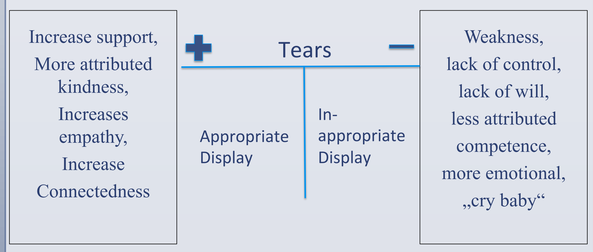
People are less likely to show mimicry and empathy towards out-group members, especially in reaction to negative emotions. Thus, people mimic happy but not sad (Bourgeois & Hess, 2008), angry, fearful (Van der Schalk et al., 2011) or pain expressions (Avenanti et al., 2010) by out-group members.

Crying is an attachment behavior designed to elicit help from others. We therefore investigated whether crying is a means to bridge the Intergroup empathy gap.

Yet, a crying person is viewed less positively than a non-crying person and participants felt more negative feelings in the presence of a crying person than a non-crying person. And they reacted even less favorably when the crying occurred in a positive context (Hendriks et al., 2008). As people tend to mimic liked individuals more than disliked ones (Likowski et al., 2008), crying may also widen the gap.

Tears may be considered inappropriate especially when shown by men (Warner & Shields, 2008) and thereby also widen the gap.

Model of the interpersnal effect of tears

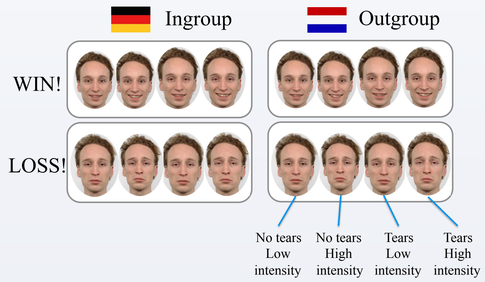


Methods

Stimuli

Expressions of happiness and sadness shown by 8 men were taken from the Karolinska Directed Emotional Faces (KDEF) set of emotional facial expressions. Expressions were morphed to vary intensity. Tears were added with Photoshop. Photos were presented for 5 seconds. Happy expressions were intermixed with neutral and surprise, sad expressions with neutral and angry filler items

Methods



Design

Participants were told that the men were fans of the German (Ingroup) or Dutch (outgroup) football (soccer) team and that the picture showed their reaction to the win (happy expressions) or loss (sad expressions) of the team in a Dutch-German match.

The participants' task was to rate the emotion shown.

Participants

A total of 92 German men with a mean age of 29.7 (SD = 7.4) years of who identified themselves as dedicated fans of the German national football team.

Dependent measures

Facial EMG

Corrugator supercilii (frown), Orbicularis oculi (wrinkles around the eyes), and the Zygomaticus major (lifting the corners of the mouth in a smile) activity was measured during the 5000 ms following stimulus onset on the left side of the face with bipolar placements of Easycap GmbH Ag/AgCl miniature surface electrodes. Raw EMG data was sampled with a Mindware bioamplifier with a 50 Hz notch filter at 1000Hz. The signals were band pass filtered between 30 and 300 Hz.

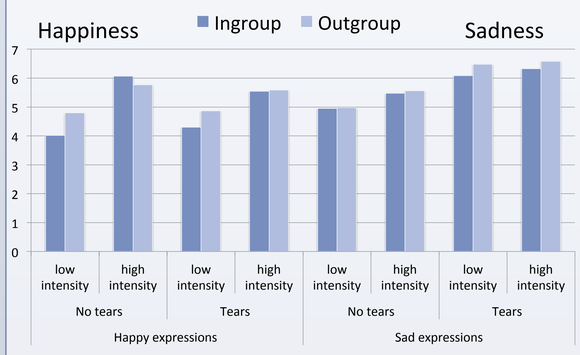
The EMG data were offline rectified, smoothed and inspected for artifact. Within subject z-transformed difference scores (trial – baseline) were calculated for each trial.

Mimicry of sadness was indexed by an increase in activation of the Corrugator supercilii (frown) and a decrease of activation of the Zygomaticus major and Orbicularis Oculi, happiness mimicry by the reversed pattern.

Ratings. Following the presentation of the emotional facial expressions, subjects rated the emotional expression of the stimulus person using an emotion profile. The participants' own emotional state (emotional contagion) was assessed once for each type of emotion.

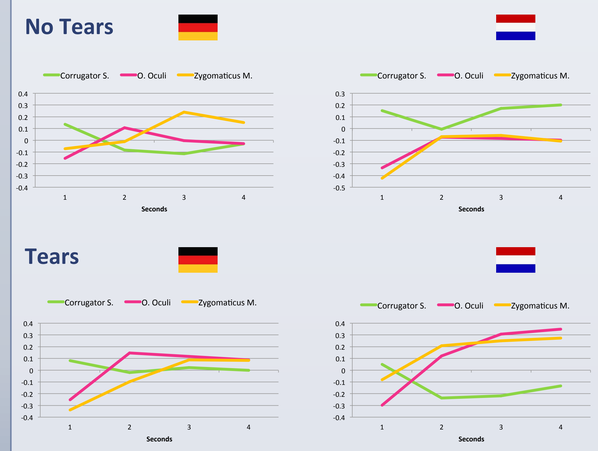
Results

Emotion ratings



Teary sad faces looked sadder regardless of intensity. Intense happy faces looked happier regardless of tears.

Facial EMG – Sad expressions



Participants did not mimic ingroup members when they showed tears because of a loss against the rival outgroup. They mimicked outgroup members who showed sadness without tears in reaction to a loss against the own group, whereas they showed schadenfreude toward those who showed sad tears in reaction to the loss.

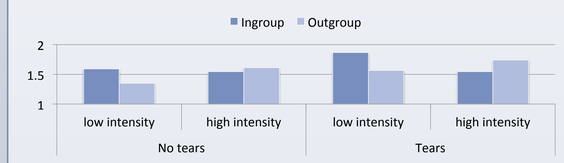
Facial EMG – Happy expressions

Results cont.

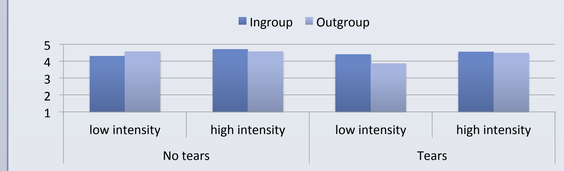
Facial EMG – Happy expressions

Participants did not mimic (ingroup) or even frowned (outgroup) at low intensity smiles but mimicked high intensity smiles for both in- and outgroup.

Emotional contagion – Sad expressions



Emotional contagion – Happy expressions



For both ingroup and outgroup sad faces with tears were more contagious. High intensity happy expressions were more contagious than low intensity expressions.

Discussion

The results show that tears do not bridge the empathy gap. In fact, when sad tears were shown by outgroup members in response to a loss they widened the gap and resulted in schadenfreude. Yet, tears did elicit significantly more contagion for sadness – but overall levels were very low. Happy tears did not have an effect on mimicry at all, but were rated as less happy.

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