Echoing emotions: reactions to emotional displays in intergroup context

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When you were young you may have occasionally done something that made your parents lose their temper. You may also remember that this was often accompanied by some distinctive phenomena: maybe your mother would start screaming while stamping her feet, and maybe your father’s temples would begin to pulsate. Apart from the behaviors that were typical for your parents, there may also have been some phenomena that are universal for angry people. For example, there may have been a red face, a raised voice, a frowning look, and intense staring eyes. You may also remember how you responded to their angry behaviors. It is likely that these outbursts of your parent’s anger affected you, and that you stopped doing whatever it was that you were up to, out of fear of the potential consequences. However, do you remember having the same reaction when one of your siblings or a classmate threw a tantrum? Probably not, and you may have thought their anger was more annoying than anything else.

In this thesis I report research in which I investigated reactions to the emotional displays of others. The central question I studied was how reactions to the emotions of others are influenced by the relationship between the individuals concerned. Specifically, I investigated the influence of group membership on these reactions.

The terms “groups” and “group membership” are rather broadly defined in this context. These can refer to groups that one chooses to belong to (e.g., sporting clubs), or groups that one belongs to through birth or circumstances (e.g., family and classmates). Two social psychological theories that were important for this thesis are social identity theory, and self-categorization theory. According to these theories, the social groups that someone belongs to are an important aspect of personal identity. One distinction that people make when they perceive another person is whether this person is a member of their own social group (the ingroup), or a member of a different group (the outgroup). This distinction is an important determinant of people’s behavior towards others. In the case of your parents and your siblings, your parents could be considered to be members of an outgroup (i.e., the group of responsible adults), whereas siblings and/or classmates could be considered to be members of an ingroup (i.e., the group of people of similar young age that conducts irresponsible behavior).1

The goal of this thesis was to show that intergroup context and group
Emotions impact on people in various ways. First, there is the subjective experience or feeling of the emotion. Second, there are physiological changes in the body—e.g., heart rate and body heat may increase or decrease. Third, emotions influence behavior—e.g., the facial expressions of your parents mentioned above, or their felt inclination to give you a slap. The research reported in the present dissertation mainly focused on subjective experiences of emotion and on facial behavior.

Research in the past has tended to investigate emotions from the perspective of the person experiencing the emotion. Recently, however, there has been an increasing amount of research investigating the social aspects of expressions of emotion. In order to study these it is necessary to examine how people understand emotions of other persons. One theory on this matter is emotional contagion theory. This theory proposes that in order to understand the emotions of others, people first need to experience these emotions themselves. According to the theory, people automatically mimic behavior when it is observed. For example, when people see a frown they will also lower their eyebrows and bring them together. This imitated behavior feeds back into the subjective experience: because people frown, they begin to feel angry or annoyed. In this way, emotions are contagious and can spread between individuals. Furthermore, because people experience the emotion that they observe, they can understand what the other person is experiencing. For example, when you were young and you were playing marbles with a classmate, by reading the facial expressions of your friend you could understand that your playmate did not like the fact that he or she was losing, and that it was time to switch to playing hopscotch.

Another perspective on emotion expressions is that these are social signals. The anger of your parents, for example, was not displayed to enhance understanding, but to make you stop moaning in the back of the car. In this case emotional displays are a functional social signal, which enable the perceiver to respond appropriately (e.g.,
duck to avoid the swinging cap of your father).

Expressed emotions thus serve social functions, and they are aimed at influencing the behavior of the social environment. Generally speaking there are two social functions: social affiliation (e.g., seeking understanding of your state of mind in order to be closer to the other) and social distancing (e.g., making clear that moaning on a 16 hour road trip to the south of France is not acceptable). In the present research we presupposed that these social functions would determine reactions to emotion displays as well. We further presupposed that group membership would determine social affiliation and distancing. This could then translate into more or less emotional contagion. The central hypothesis was that there would be more emotional contagion between individuals within a social group (the ingroup), than between individuals of different social groups (the outgroup). Another hypothesis was that the perception of expressed emotions would increase social bonding between individuals within a social group (the ingroup), but not between individuals of different social groups (the outgroup).

The research

The results of the studies reported in this dissertation largely confirm these propositions. In Chapter 2 a new standardized set of filmed emotion expressions was presented, the Amsterdam Dynamic Facial Expression Set (ADFES). The ADFES includes 12 North-European and 10 Mediterranean models (22 models in total, 12 male and 10 female), and nine discrete emotions (joy, anger, fear, sadness, surprise, disgust, contempt, pride, and embarrassment). The models were specifically trained to display their expressions in as identical a way as possible. In a first study with this set, Dutch (White) participants were asked to judge these expressions. The study showed that the ADFES received excellent recognition rates. However, despite the fact that the expressions of the North-European and the Mediterranean models were nearly identical, Dutch participants were better at recognizing the emotions displayed by North-European models, compared to those displayed by Mediterranean models. This suggests that there is an ingroup advantage in emotion recognition. In a second study we demonstrated that observing the emotional displays of ingroup members increased
liking of these models, but that this did not increase liking of outgroup models. This indicates that perception of others’ emotions has a positive effect on the relationship between individuals, but only if they share group membership. The findings of these studies therefore provide empirical support for the argument that individuals are more emotionally responsive to ingroup members, compared to outgroup members.

Chapter 3 more specifically investigated the processes that may be responsible for differential responses to emotions of ingroup and outgroup members. We showed participants filmed expressions of anger, fear, and happiness displays of people from different social groups. While participants were viewing these video clips we assessed imitation of the displays by coding their facial behavior. We also asked participants how they felt when they were watching these expressions. The findings revealed that emotional expressions of anger and fear were mimicked to a greater extent when they were expressed by ingroup members, than when they were expressed by outgroup members. Indeed, expressions of outgroup members evoked emotions that diverged from the displays that were perceived: participants reported fear in response to outgroup anger, and showed facial expressions of aversion in response to outgroup fear. These findings are in line with the presupposed social functions of emotions: people converge towards the emotions of individuals within their social group (social affiliation), but diverge from the emotions of individuals outside their social groups (social distancing).

This conclusion was further corroborated by a replication of the finding that perception of ingroup emotion displays increases liking for ingroup members, whereas perception of outgroup emotional displays does not increase liking for outgroup members. Moreover, we found that the increase in liking for ingroup members was caused by mimicry of the displays. This suggests that automatic behavioral responses to emotions of others directly influence the relationship with these others.

These results, however, were not true for all emotions. The attenuation of emotional mimicry to outgroup displays was not found for displays of happiness. Apparently, reactions to others’ emotions are determined not only by group membership, but also by the specific meaning of the emotion. We suggest that happiness displays signal affiliation. These displays can therefore be disarming, even when they are expressed by outgroup members. This suggests that happiness can overcome group
This idea was further investigated in Chapter 4. In these studies we manipulated participants’ need for affiliation. We did this by having participants think about the fact that one day their lives will end. Thinking about your own death can have two effects: it can increase people’s need for affiliation, but it can also make people’s judgement of an outgroup more negative. We predicted that when people were reminded of their death, happiness displays of outgroup members would increase social affiliation. Anger displays of outgroup members, on the other hand, should increase social distancing. This is exactly what we found. When individuals were reminded of their death, they converged more to the happiness displays of outgroup members. Moreover, attitudes towards outgroup members became more positive. In response to anger displays, in contrast, individuals converged more to ingroup displays, and attitudes towards outgroup members became more negative. These findings show that responsiveness to the emotions of others is influenced not only by group context, but also by motivational factors. The findings further suggest that the bias against outgroup members with respect to emotional bonding can be overcome when individuals are motivated to affiliate.

The results of these studies largely support our proposition that reactions to emotions reflect the social functions of emotions. People are more likely to converge towards the emotional displays of people within their social group, than to those of people outside their social group. Emotional convergence then increases the bond between people within social groups. This is line with the affiliation function of emotions. People diverge, however, from emotional displays of people outside their social group. This is in line with the distancing function of emotions. These findings, however, depend on the specific emotion that is displayed and the affiliation motive of the perceiver. Happiness signals willingness to affiliate and this emotion can transcend group boundaries. This is especially the case when the perceiver has an increased need to affiliate.

Another interesting finding was that our studies provided no evidence for the causal relation between automatic imitation and emotional convergence that is presumed by emotional contagion theory. In Chapter 5, I therefore introduce a new model that better fits with the findings of the dissertation, the Intergroup Emotional Convergence
and Divergence (IECD) model. The IECD model presumes that when emotional displays are perceived, the observer simultaneously judges the group membership of the displayer. Emotion and intergroup context then interact to determine behavior and feelings of the perceiver. Importantly, behavior and feeling are seen as independent processes. Furthermore, behavioral and emotional reactions to others’ displays can be convergent with or divergent from the emotion displayed. The model fits with the social functions of emotions: affiliation is reflected in emotional convergence, and distancing is reflected in emotional divergence. In this sense, the model extends the social function view of emotions in predicting that reactions to emotions of others follow the same functions. In general, individuals converge towards the emotions of ingroup members, but diverge from the emotions of outgroup members. The specific emotion that is displayed, however, also influences whether people converge or diverge. When emotions (e.g., happiness) signal affiliation the perceiver converges to the display independent of the group membership of the displayer. In this way, emotion and intergroup context interact to determine behavioral and emotional reactions to displays.

**Recommendations**

The findings discussed in this dissertation have practical implications. In many Western societies various ethnic and social groups live together. As a result, there is regular interaction between members of different groups. The results of the current dissertation suggest that when these interactions involve emotional expressions, individuals are not equally responsive to the emotions of people from different groups. This may seriously affect day-to-day situations that involve members of minority and majority groups. Especially in emotional interactions, like for example in job interviews, in health care contexts, or in legal matters, reacting differently to the emotions of members of minorities may have negative consequences for individuals from these groups. It is therefore recommended that possible differential responsiveness to the emotions expressed by members of different groups is taken into consideration in these sorts of circumstances.

In the Dutch media it is sometimes suggested that expressions of negative emotions in intergroup situations should not be withheld, because this may provide a
basis for bigotry and may escalate into outbursts of xenophobia and intergroup conflict. This may be true, and the current dissertation did not investigate this hypothesis. The results in this dissertation do show, however, that displays of emotion also have an effect on the perceiver of these displays: perception of negative emotional displays has an adverse effect on intergroup relations. It is therefore recommended that the media should be reticent in the portrayal of negative emotions in intergroup settings, especially when tensions between various groups in society arise. Greater awareness of the possible effects of emotion perception could reduce the chances of worsening intergroup relations and escalating intergroup conflict.

Conclusion

In sum, the findings of the current dissertation show that emotional displays—in particular negative emotional displays—bring individuals together when they share group membership, but drive individuals apart when they do not share group membership. Intergroup interactions can be emotional, and if members of different groups do not respond empathically to the emotional signals of the other person, the interaction will not run smoothly and the relationship with the other person may suffer. This conclusion may appear to suggest that emotions only have a negative effect on intergroup relations. Not all emotions have this effect, however. Happiness displays can overcome group boundaries, and individuals converge to outgroup happiness to the same extent as they do to ingroup happiness—sometimes even more so. This shows that while some emotions can signal distancing, other emotions can signal affiliation, even if there is an initial distance or dissimilarity with the other person. If people become aware of the different effects of their emotions, they may respond to the emotional displays of strangers more appropriately.
Footnote

¹ In the present thesis no research was conducted on children and their relationships with parents. In the example of reactions to parental emotions in comparison to the emotions of siblings or classmates, other psychological factors may play an important role. This example is no more than an illustration of how the social groups that one belongs to (e.g., own age group) or do not belong to (e.g., the age group of your parents) can have an influence on reactions to others’ emotions.