

Conceptualizing and Measuring Group Emotion



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The concept of group emotions is relative to that of individual emotions. According to studies, even if a given event's occurrence has nothing to do with an individual, the individual still manifests an emotional reaction (e.g., Cialdini et al. 1976). At the core of group relative deprivation theory, anger and hate are considered as the conceptualization of group emotions in the early stage of its formation (Smith and Kessler 2004).

Studies of individual emotions has accumulated a lot of theories, evidences and experiences. Studies of group emotion draws heavily on the aforementioned research results. For example, the theoretical framework of group emotions is based on the existing systematic theory for individual emotions, and its measurement method applies self-report, which is the methodology used in terms of individual emotions. Therefore, study of group emotions shows many traces of the research results for individual emotion in terms of concept definition, measurement and theoretical framework. On the one hand, such migration promotes the rapid development of group emotion research, but on the other hand it also makes it difficult to distinguish group emotions from individual ones.

This article first defines the concept of group emotions, then briefly introduces the existing theoretical models for group emotions and mainly reviews the current relevant measurement methods. On this basis, it analyzes the issues of these existing measurement methods and the possible development trends in the future.

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© Social Sciences Academic Press 2019
Y. Yang (ed.), *Social Mentality in Contemporary China*,
Research Series on the Chinese Dream and China's Development Path,
https://doi.org/10.1007/978-981-13-7812-6_6

1 Definition of Group Emotions

Although Smith (1993) put forward his theoretical framework for group emotions very early in time, the concept only gradually began to be used later (Doosje et al. 1998; Smith 1999). Smith first used the concept of “social emotion” on which basis he defined prejudices as “a social emotion experienced with respect to one’s social identity as a group member and aiming at an out-group target” (Smith 1993). In another book, he (1999) repeated this point of view, but uses “group emotion” to replace “social emotion.” Later on, Smith and his colleagues revised the concept again, calling it “intergroup emotions” (Mackie et al. 2000).

As different researchers use different terms depending their own research perspectives, terms such as group emotions, social emotion and intergroup emotion are widely used and co-exist in literature. Therefore, this article intends to adopt the unified term of “group emotions” and review the content of its different aspects.

Researchers have different opinions on the definition of group emotions. Parkinson et al. (2005) argue that there are subjects and objects in emotions. Individual emotions and group emotions are different in terms of subject. The subjects of emotions are individuals who experience emotions by appraising events according to their own existing targets. For individual emotions, the subjects are the individuals or their appraisal of their environment. For group emotions, the subjects are group members who experience emotions after appraising group events or environment that activate their social identities. The objectivity of emotions lies in the difference between the inductive stimuli of emotions. The existing divergence in defining the concept of group emotions is mainly reflected in the difference of emotional objectivity, namely the difference in stimuli for inducing group emotions.

The first concept of group emotions emphasizes that there is an out-group relative to the in-group working as a group emotion-inducing source. In Smith’s opinion, so-called group emotions are emotional experiences felt by individuals and directed at a specific group or society members (Smith 1993). Smith et al. (2007) thought that group emotions and individual emotions have stable differences. They proposed and verified four conceptual criteria of group emotions. These four criteria are: there are differences between group emotions and individual emotions; group emotions depend on the degree to which individuals identify with the group; group emotions are socially shared within the group; group emotions activate and manage intragroup and intergroup attitudes and behaviors.

Smith and other researchers didn’t emphasize the importance of different criteria in independently verifying the presence of group emotions, but stressed the fact that, given that the above four criteria are all met, the existence of group emotions can often be definitely inferred. Some specific circumstances do not need to meet the above four criteria. Group emotions referred to in this definition often derive from the appraisal of the intergroup relation between the in-group and the out-group, which emphasizes that an out-group is the object or target of group emotions. Thus, this definition generally sets the out-group in the perspective of group emotion experiences.

The second concept stresses that group emotions are induced as group membership is activated, but doesn't pay attention to whether the target of emotions is in-group or out-group. There are essential differences between this definition and the definition put forward by Smith et al. Researchers arguing on this definition neither emphasize the objectivity of group emotions like Smith, nor stress the in-group or out-group target of emotions. On the contrary, they stress subjectivity and focus on the emotional reaction of individuals to group interests (Yzerbyt et al. 2003; Gordijn et al. 2006; Van Zomeren et al. 2011). For example, Iyer and Leach (2008) defined group emotions as emotions felt by individual subjects after categorizing themselves as group members. Hareli and Parkinson (2008) argue that social emotions are emotional states felt by people when they appraise their social concerns. These social concerns refer to certain factors of social importance to which people pay attention, such as status, power, and dependence. These factors restrict people's status in different social entities such as social norms, crowds, teams or organizations. Social appraisal is the implicit and explicit understanding of these objects or events and social concerns; it is an important source that induces or forms social emotions, and an essential feature of social emotions. Kuppens (2011, 2012a) argue that group emotions are emotional experiences that occur when group members make group appraisal of circumstances while centering on group interests. If we categorize group emotions into out-group and in-group emotions, then group emotions defined by Smith et al. belong to out-group emotions, i.e., essentially intergroup emotions, which can be regarded as a subtype of group emotions. By this definition, it is often not necessary to set an out-group. It is required however to set a specific event and then to manipulate the significance of social identity by changing the perspective on group memberships.

The third concept holds that the subject of group emotions lies in the activation of individual group memberships whereas the object of group emotions lies in other in-group members. This definition regards the formation of group emotions as the summation of individual emotions. According to this definition, and seen from a top-down perspective, group emotions can be understood as emotions experienced by individuals within a group and move down to individuals from the group level. This definition mainly concentrates on how group emotions affect individual emotional experiences and behaviors, as well as how group emotions affect group behaviors through the reactions of homogeneous individuals. Under certain conditions, group emotions can restrain the reaction of the group while under other conditions it can exaggerate the group's reaction. If seen from a bottom-up perspective, group emotions can be regarded affective team composition. Affective team composition refers to how the emotions of individual group members combine to create group-level emotions, and how group emotions may be seen as the summation of its parts, how the combination of individual group members' emotions goes beyond membership itself and thereby affect the development of group emotions. By this definition, the content of group emotions are very broad, and may include states of mind, acute emotions, dispositional affects, etc. (Barsade and Gibson 1998). It is often not necessary to set a specific scenario or an out-group, nor conduct measurements of social identity salience, but only needs to confirm individual group memberships.

2 Theoretical Models of Group Emotions

Different definitions of group emotions generate different formation mechanisms, thus form different theoretical frameworks. There are mainly three theoretical frameworks: the intergroup emotion theory (IET), the group appraisal model, and the emotional pollution model.

2.1 *Intergroup Emotion Theory (IET)*

IET is the earliest and most widely known group emotion model. It was put forward based on the social identity theory, emotion appraisal theory, and self-categorization theory. IET researchers believed that the formation mechanism of group emotions lies in the identity of individuals within a group, thus leading to emotional experiences toward in-group members. When social identity is salient, the appraisal of conditions or scenarios related to social identity mainly focuses on social concerns rather than individual concerns. Therefore, different appraisal models result in different emotional reactions. Ray et al. (2008) further believed that controlling individuals' identity within the group by social categorization would lead to different group emotions.

The advantage of IET is that it regards cognitive appraisal as the prerequisite for emotional experience. The matching of various types of emotional experiences and in-group relations goes beyond the pairing between positive and negative emotions in traditional emotion research. In terms of its shortcomings, on the one hand, it does not allow for a distinction of the relation between in-group identity and degrees of social support (Parkinson et al. 2005; Van Zomeren et al. 2004); and on the other hand, when social identity is salient, individuals may appraise group events as individuals or group members, and thus making it impossible to assess whether their cognitive appraisal is based on individual or group level. This may lead to the blending of individual appraisals and group appraisals, and thus individuals may experience both individual emotions and group emotions at the same time.

2.2 *Group Appraisal Model*

Although the group appraisal plays an important role in the production of group emotions or even is the source of group emotion (either from the point of individual emotions or group emotions), existing studies have neither systematically discussed and analyzed group appraisals and group emotions, nor regarded them as the core of their theoretical model. This does not match with the core position of appraisal in the production of individual emotions. Although IET considers the role of cognitive appraisal, IET researchers have not specified whether cognitive appraisal is based on

individual or group appraisal, and thus group emotions referred to in their theoretical model are perhaps not group emotions in the true sense. In addition, group emotions defined by IET further emphasize the emotional object (out-group), laying particular stress on intergroup emotions. Therefore, cognitive appraisal may be just appraisal based on intergroup relations, which narrows the scope of cognitive appraisal.

Based on the above considerations, Kuppens (2011) believed that the cognitive appraisal method narrows the theoretical property of group emotions. IET researchers systematically discussed the central role of group appraisal in terms of group emotions and believed that the salience of social identity shapes group emotions by way of group appraisal. Their research concluded that, without changing in-group and out-group emotional objects, changing the salience of a particular social identity affects group emotions. Moreover, the salience of social identity affects subsequent group emotions with group appraisal of intergroup scenario as the mediating variable. In addition, the importance of the group to individuals affects group appraisal instead of individual appraisal. Yzerbyt and Kuppens (2013) believed that in the process from group appraisal to group emotions, social communication and social sharing both play important roles that help improve group cohesiveness and homogeneity. This makes it easier for individual members to assume the groups perspective when making appraisal, thereby enhancing group appraisal and strengthening group emotions. Group interaction and communication also promotes the emergence of group emotions.

2.3 Emotional Pollution Model

What is known as emotional pollution refers to the process in which emotions or moods surrounding us affect our own emotional states. Emotional pollution, conscious or not, is the relatively automatic and unconscious tendency to simulate and synchronize with other emotions conveyed in words, gestures, and movements, thereby resulting in emotional convergence (Hsee et al. 1990).

Emotional pollution can induce group emotions without any conscious conversion. Emotional contagion happens without a particular scenario and appears in the absence of explicit emotional measurement conditions. In some cases, group emotion states are changed as others intend. Intentional emotions often come from influential or high-status leaders and members of influential groups. Influential leaders are capable of inducing, adjusting and changing group emotions, thereby consciously adjusting the behavior of group members. The process of emotional pollution implies that if group members are composed of individuals sensitive to emotional pollution, then these group members will in time converge to a given emotional point, resulting in a homogeneous group. In other words, unless certain conditions are hindered, a work group will present similar group emotions over time.

3 Measurement of Group Emotions

There are different definitions of group emotions, as well as different theoretical models for the formation mechanism of group emotions, thus resulting in different measurement. The most important and fundamental problem in the measurement of group emotions is how to separate individual emotions from group emotions. Individual pleasant experiences are very similar with the pleasant experiences of a group in terms of senses. Events influencing the group will affect group members in an individual manner, thus further blurring the difference between individual and group emotions.

Therefore, how do researchers determine individual or group emotions? In order to solve this problem, different groups apply different emotion measurement methods. The main methods currently applied include: one, the activation of individual group memberships and group identities, thereby achieving the goal of measuring group emotions; two, the manipulation of the categories and the salience of social identity to distinguish individual emotions from group emotions; three, the controlling of the salience of social identity and measurement of group appraisal, thereby analyzing and finding relatively pure group emotions; four, the measurement of individual emotions within a group, regarding the average emotional state of group members as group emotions. However, with any one of these measurement methods, researchers are all to operationalize and define the group on the basis of group emotions they have defined. Researchers attempt to prove the measured emotions are indeed the result of individual considerations of group concerns and group appraisals from the perspective of the group.

Existing measurement of group emotions basically follows the process of activating group membership or controlling the salience of social identity, then measuring group identity and group emotions. Different measurement methods stress different mediating variables from the perspective of their own definitions and theories, and focus on analyzing different variables. Social identity derives from the intergroup emotion theory, and group appraisal is based on the group appraisal model, while the theoretical basis of average individual emotions is the emotional pollution model.

Current studies of group emotions fall short in a number of areas. First, existing group emotion measurement focuses on ensuring that the emotions measured are truly group emotions instead of on the measurement method of group emotions. Researchers generally measure mediating variables rather than control them, and then use statistical analysis of mediating variables to ensure the effectiveness of the measurement. However, the pure statistical analysis of mediating variables is weak, not powerful enough for measuring group emotions. Second, the measurement of group emotions is still done according to the traditional method of Likert-type oral report. Although this method is easy and simple to use in research, it only measures anticipated emotions and cannot measure real-time emotions. In other words, participants usually make oral reports by anticipating what type of emotions they may experience in a given scenario and to what degree these emotions would be aroused. Third, the existing measurement of group emotions usually requires partic-

ipants to report their degree of emotional experience in an explicit way, which may cause measurement errors. Fourth, the measurement research methods and means for group emotions are relatively simple, and do not allow for the mutual verification of different research methods and means.

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