



Components of Emotional Meaning: A sourcebook

Johnny J. R. Fontaine (ed.) et al.

<https://doi.org/10.1093/acprof:oso/9780199592746.001.0001>

Published: 15 August 2013

Online ISBN: 9780191762765

Print ISBN: 9780199592746

Search in this book

CHAPTER

42 Cognitive appraisals can differentiate positive emotions: The role of social appraisals

Eddie M. W. Tong

<https://doi.org/10.1093/acprof:oso/9780199592746.003.0043> Pages 507–511

Published: August 2013

Abstract

A question in appraisal research is whether positive emotions can be as strongly differentiated as negative emotions. This chapter discusses how strongly social appraisals, which are appraisals of how the situation is affecting another person, differentiate positive emotions and negative emotions. Discriminant function analyses on data from Singapore showed that social appraisals classified positive emotions with a higher accuracy rate than negative emotions.

Keywords: [social appraisal](#), [positive emotion](#), [negative emotion](#), [discriminant analysis](#)

Subject: [Developmental Psychology](#), [Social Psychology](#)

Collection: [Oxford Scholarship Online](#)

According to appraisal theories of emotions, emotions are influenced by how objective events are subjectively interpreted as a function of personal goals and well-being (Ellsworth & Scherer, 2003). Any given event can be appraised in a large number of ways, along a set of cognitive dimensions known as appraisals. For example, an event can be appraised in terms of its relevance to the person's goals, whether it is blocking those goals, whether it is fair or unfair, who or what caused it, and how much the person can cope with it. More importantly, each emotion is associated with a combination of these appraisals. For example, if an event is appraised as a hindrance to personal goals, as unfair, and as caused by others, the person is likely to feel anger, but if it is appraised as a hindrance to personal goals, as unfair, and as caused by the self, the person could feel guilt.

Numerous studies conducted using different methods, and over diverse cultural samples, have found several appraisal–emotion relationships, which appraisal theories predict (see Ellsworth & Scherer, 2003 for a review). Hence, appraisal theories are among the most successful theoretical models for understanding and predicting emotions. However, several concerns remain unaddressed, and this paper reports a preliminary analysis of one of these issues using the GRID data. One of the persisting problems in appraisal research is the extent to which appraisals can differentiate positive emotions (e.g., joy, hope, interest, gratitude, and contentment). Current

evidence suggests that the appraisals that were commonly examined (which are referred to here as classic appraisals) cannot differentiate positive emotions as strongly as they do for negative emotions. Although there are different appraisal theories, they overlap considerably in terms of the appraisals they propose, and examples of these common classic appraisals are NOVELTY, VALENCE, goal significance, coping potential, and compatibility with standards (Ellsworth & Scherer, 2003). In the seminal study by Smith and Ellsworth (1985), participants recalled (in turn) events of 15 emotions and then rated their appraisals of these events. Six emotions were positive (e.g., happiness, interest, pride) and nine were negative (e.g., anger, sadness, fear). Six classic appraisals (pleasantness, effort, certainty, attention, self-other responsibility/control, and situational control) were examined for their ability to differentiate these emotions, as reflected by the locations of the emotions on multi-dimensional appraisal spaces formed by the appraisals. The positive emotions were found to occupy a smaller portion of the spaces than the negative emotions, which seems to suggest that classic appraisals are not as capable of differentiating positive emotions as they do for negative emotions.

p. 508 Other studies provide indirect support. In studies that examined current (instead of recalled) emotional experiences, positive emotions were found to correlate more strongly with each other than negative emotions (Barrett, Gross, Christensen, & Benvenuto, 2001; Smith & Ellsworth, 1987). This indicates that positive emotions are more likely to co-occur than negative emotions, which suggests more similarity between different positive emotions than between different negative emotions. Although these findings did not involve appraisals, they can reinforce the impression that positive emotions are less differentiable by appraisals.

Findings like these are incompatible with everyday understanding of positive emotions as experientially different. They also do not sit well with a large literature (outside of appraisal research) that posits positive emotions as conceptually distinct, each with its own set of qualities (for in-depth accounts on individual positive emotions, see Snyder & Lopez, 2002). One approach to this issue is to consider whether appraisal research, in its focus on classic appraisals, has neglected other appraisals that could be strong differentiators of positive emotions. The problem of “missing appraisals” is not new; appraisal theorists have long argued for the need to look beyond the classic appraisals to understand emotions (Reisenzein & Hofmann, 1990; Smith & Ellsworth, 1985).

There is emerging (but largely indirect) evidence that social appraisals might be some of these “missing appraisals” that could discriminate positive emotions strongly. Social appraisals are appraisals of how the situation is affecting another person (Manstead & Fischer, 2001; Parkinson & Simons, 2009). Initial theorizing emphasized how events are appraised in terms of whether they serve or threaten personal goals and well-being and how these self-related appraisals affect emotional experience. However, there is increasing recognition that emotions are also affected by appraisals of how the situation is affecting the goals and well-being of someone else (Manstead & Fischer, 2001). Social appraisals can affect emotions in many ways. First, they can serve as direct inputs in determining emotional responses; for example, we feel joy when a loved one receives praise for a job well done, or relief when he or she escapes a bad predicament. Second, they can disambiguate situations and clarify their emotional meanings, such as those revealed in the classic studies by Schachter and Singer (1962) in which participants appraised others' emotional reactions to understand their own feelings. Third, they can compound or negate the effects of self-related appraisals on emotions; for example, our enjoyment of a promotion can be enhanced when we notice that other people are happy for us, or can be dampened when they do not seem to appreciate our success (Jakobs, Manstead, & Fischer, 1999, 2001).

Social appraisals are already known to be important for positive emotions. For instance, knowing that a situation has helped a loved one is a source of positive emotions such as joy, contentment, pride, and relief (e.g., Isen, 1999; Lazarus, 1991a; Lewis, 1993; Lyubormirsky & Tucker, 1998). Love and gratitude correlate with wanting the best outcomes for the beloved and the benefactor, respectively (Lazarus, 1991a; McCullough, Kilpatrick, Emmons, & Larson, 2001). Compassion occurs when another person is hurt or is suffering (Cassell, 2002). More relevant to the current concern, past studies also suggest that social appraisals could be strong differentiators of positive emotions. In a study by D'Andrade, Boster, and Ellsworth (in preparation),

participants indicated their imagined emotional responses to hypothetical situations. Factor analyses of the data revealed a social factor (indicating that one is loved and cared for by another), which most strongly differentiated the positive emotions they examined. In another study by Shaver, Schwartz, Kirson, and O'Connor (1987), hierarchical cluster analyses of similarity ratings of positive emotion terms suggested that positive emotions can be separated according to whether a loved one is involved in the emotional experience. However, no appraisals were measured in these studies. Another study by Tong (2007), more directly examined the discriminatory POWER of appraisals on positive emotions. In this study, participants recalled their experiences of 14 positive emotions (in turn) and then rated their appraisals of these experiences. Social appraisals together with some classic appraisals were found to differentiate these positive emotions close to the level of accuracy with which classic appraisals differentiated negative emotions in past studies (Frijda, Kuipers, & ter Schure, 1989; Scherer, 1997a; Smith & Ellsworth, 1985). However, Tong (2007) examined only positive emotions, leaving unanswered the question of whether social appraisals could also differentiate negative emotions just as strongly.

The current argument does not imply that social appraisals are not important for negative emotions. We do get angry or sad when our loved ones are hurt; we worry about their safety; and we may feel guilty when they commit an inappropriate act. Further, it remains possible that social appraisals could discriminate negative emotions just as strongly. The current critique also does not imply a fundamental flaw in appraisal theories or its studies. What it does imply is the need to go beyond the classic appraisals to include new ones to examine whether there are appraisals that can strongly differentiate positive emotions. In view of the suggested strong discriminatory POWER of social appraisals on positive emotions shown by past studies (D'Andrade et al., in preparation; Shaver et al., 1987; Tong, 2007), social appraisals might be a good candidate to consider for this purpose. Hence, a potentially important question in appraisal research is how strongly do social appraisals differentiate positive emotions and this can be assessed in comparison to the discriminatory POWER of the social appraisals on negative emotions. Evaluation of the discriminatory POWER of the social appraisals on positive emotions is better served by comparing it to the discriminatory POWER on negative emotions, without which the evaluation would be quite arbitrary. Also, differences (if any) in the discriminatory POWER of the social appraisals between the positive and negative emotions could be helpful for the development of theoretical models concerning the differences between these emotions.

The GRID study has the potential to investigate this issue. It examines participants' understanding of the meanings behind the linguistic labels of 24 positive and negative emotions as used in their cultural contexts and was conducted internationally over numerous cultures. Participants rated how much they associated a set of features (e.g., action tendencies, bodily expression) with each emotion label whenever it was used in everyday conversation. Social appraisals were among the features measured and are the focus here. This paper reports the first analysis of the discriminatory POWER of social appraisals over the measured positive and negative emotions. Data from Singapore was chosen for this preliminary assessment, results of which can be used to guide subsequent analyses on the larger GRID dataset. It is possible that the GRID data only reflect cultural beliefs about emotions as reflected in linguistic labels, not actual emotional experiences. However, to some extent, cultural beliefs should also derive substantially from actual experiences and hence there should be some degree of correspondence between meanings associated with cultural labels and actual experiences. Future studies should extend the current research by examining actual experience (especially if the present results do suggest that social appraisals differentiate positive emotions strongly).

One hundred and three undergraduates (85 females, 18 males; mean age = 20.03, SD = 1.58) from the National University of Singapore (NUS) participated in exchange for course credits. They completed the GRID instrument on-line, following the same procedure used in other countries that participated in the GRID project (see Chapter 6). In this measure, 24 emotions were tested and 144 emotion features (e.g., appraisals, bodily expression, facial expression, vocal expression, action tendencies, subjective feelings, and regulatory processes)

were measured. The emotions were selected based on frequent usage in research and daily language and the features were drawn from dominant theoretical perspectives of these emotions (see Chapter 5 for details).

p. 510 The GRID instrument was administered in English, the first-language in Singapore, which all NUS undergraduates are fluent in. Four randomly chosen emotions were selected for each participant. Participants were presented with the label of an emotion (e.g., *anger*) and then rated items that assessed its perceived features. The instruction was “If a person in your cultural group uses the following emotion word to describe an emotional experience, how likely is it that the person experienced an event . . .,” which was followed by the items. The items for social appraisals were “that was in itself pleasant for somebody else (independently of its possible consequences),” “that was in itself unpleasant for somebody else (independently of its possible consequences),” “of which the consequences were likely to be positive, desirable for somebody else,” and “of which the consequences were likely to be negative, undesirable for somebody else,” and “that was important and relevant for the goals or needs of somebody else.” These items were chosen because they fit well with the conceptual definition of social appraisals (see Manstead & Fischer, 2001), which concerns whether the situation has harmed or helped someone else and how important is the situation for that person. All items were rated on nine-point scales that ranged from 1 (*extremely unlikely*) to 9 (*extremely likely*). Each item was presented on a separate screen. Participants spent about 15 min completing all questions for each emotion before proceeding to the next until all four emotions were responded to. Although 24 emotions were tested in the GRID study, only 18 (nine positive emotions—compassion, contentment, happiness, interest, joy, love, pleasure, pride, and surprise; nine negative emotions—anger, anxiety, contempt, disgust, fear, guilt, hate, sadness, and shame) were examined here based on two considerations. First, the number of positive and negative emotions should be kept equal for a fair comparison; because only nine positive emotions were examined in the GRID study, only nine negative emotions were selected. Second, the negative emotions were selected to be as similar as possible to those examined by Smith and Ellsworth (1985), which is the study closest to the current purpose; this permitted some (but limited) comparison between the current results and those from Smith and Ellsworth. Despite leaving some emotions out of the analyses, the sample size was maintained at 103.

Discriminant function analysis was employed to test how sensitive the social appraisals were to the differences between the emotions. First, a set of “discriminant functions” (equations comprising the social appraisals) was computed and the extent to which these functions accounted for the variance (i.e., the differences) between the emotions was evaluated using the Wald’s λ test. Second, classification indices were computed to evaluate how accurately these functions classified all cases (data units) into their respective emotion categories. For instance, a case that was rated in reference to sadness should be classified as a member of the sadness category. Hence, higher classification accuracy would mean that the social appraisals were more sensitive to the differences between the emotions. All classification indices were computed using the “leave-one-out” method, which classified each case using functions derived from all other cases and hence would provide better estimates of the classification accuracy of the social appraisals. Two discriminant analyses were conducted, one on the positive emotions and the other on the negative emotions. In both analyses, the five social appraisals were entered as predictors. At this point, certain caveats should be mentioned. First, discriminant analysis was developed for analyzing between-participant data, but not within-participant data (not to mention the present form of within-participant data in which each participant responded to a small subset of the 24 emotions). Hence, the consequence of applying discriminant analysis to the current data is not well understood. Also, no technique has been developed to statistically compare classification indices, which means that classification indices are typically interpreted descriptively. These qualitative comparisons, however, provide heuristic indications of the discriminatory POWER of the social appraisals on emotions, which can be useful for future theorizing concerning social appraisals. In summary, the analyses are meant to be preliminary and exploratory, and the interpretations that follow are tentative and should be taken cautiously.

The results indicated that only the functions computed for the positive emotions were significant, Wald’s $\lambda = 0.67, \chi^2(40) = 35.70, p = 0.034$, whereas those computed for the negative emotions were not, Wald’s $\lambda = 0.47, \chi^2(40)$

= 43.86, $p = 0.35$. Hence, the social appraisals were significant differentiators of the positive emotions but not the negative emotions. The “leave-one-out” classification index for the positive emotions was 19.5% whereas that for the negative emotions was 12.8%. Note that the prior probabilities of correctly classifying the emotions by chance were 11.1% for both types of emotions. Hence, not only did the classification index for the positive emotions seem larger than that for the negative emotions, it also appeared to be considerably above chance levels (the classification accuracy of the negative emotions, however, was too close to chance). Thus, the social appraisals seemed to classify the positive emotions more accurately than the negative emotions.

These findings appear promising, but one should be mindful of its limitations. As just mentioned, the data do not reflect actual emotional experiences and there could be analytical problems associated with using discriminant analyses on within-participant data. In addition, the extent to which the same findings can be replicated with other emotions and in other cultures is unknown at this point. Also, the classification indices are not high; the discriminant functions classified the positive emotions correctly only for 19.5% of the cases and the negative emotions only for 12.8% of the cases. They are also largely lower than those produced by the classic appraisals in the study by Smith and Ellsworth (1985), which ranged from 29.2% to 36.5% for the positive emotions and 17.4% to 27.8% for the negative emotions. This might suggest that classic appraisals still do better than social appraisals in differentiating both positive and negative emotions. However, there are differences between the current study and Smith and Ellsworth’s that limit comparison, including the number and type of emotions examined and methodological differences (their participants recalled actual emotional experiences whereas the GRID participants responded only to labels). Finally, researchers should also consider the reasons why social appraisals differentiate positive emotions more strongly than negative emotions (assuming this is further replicated).

Despite these reservations, the current results, preliminary as they are, are quite promising. Given the large number of cultures examined in the GRID study, the current question concerning social appraisals could be subjected to a more powerful test with greater precision once the entire data set is available. Although the problems and limitations mentioned are formidable, they can be dealt with using the GRID dataset (e.g., developing discriminant analytical techniques that suit the GRID data), or with another study (e.g., one that examines actual emotional experiences). In addition, the GRID data can test other hypotheses concerning social appraisals. In particular, one could examine whether the relationships between social appraisals and emotions might be more pronounced in collectivistic cultures than in individualistic cultures (Manstead & Fischer, 2001). In summary, further research on social appraisals seems promising, and the GRID data can be used further to examine how social processes influence emotional experiences.

Notes

- 1 Correspondence on this chapter should be addressed to Eddie M. W. Tong, Department of Psychology, National University of Singapore, 9 Arts Link, Room 02-09, Singapore 117570, email: psytmwe@nus.edu.sg