

JUDGEMENTS OF FACIAL EXPRESSIONS
OF EMOTIONS IN CONTEXT AND
NO-CONTEXT CONDITIONS

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Thirty photographs depicting diverse emotional expressions were shown to a sample of Melanesian students who were assigned to either a face plus context or face alone condition. Significant differences between the two groups were obtained in a substantial proportion of cases on Schlosberg's Pleasant Unpleasant, and Attention - Rejection scales and the emotional expressions were judged to be appropriate to the context. These findings support the suggestion that the presence or absence of context is an important variable in the judgement of emotional expression and lend credence to the universal process theory.

Research on perception of emotions has consistently illustrated that observers can accurately judge emotions in facial expressions (Ekman, Friesen, & Ellsworth, 1972; Izard, 1971) and that the face conveys important information about emotions being experienced (Ekman & Oster, 1979). In recent years, however, a question of interest has been the relative contributions of facial cues and contextual information to observers' overall judgements. This issue is important for theoretical and methodological reasons. From a theoretical viewpoint, unravelling the determinants of emotion perception would enhance our understanding of the processes of person perception and impression formation and would provide a framework for research on interpersonal communication. On methodological grounds, the researcher's approach to the face versus context issue can influence the type of research procedures used to analyse emotion perception. Specifically, much research in this field has been criticized for use of posed emotional expressions as stimuli for observers to evaluate. Spignesi and Shor (1981) have noted that only one of approximately 25 experimental studies has utilized facial expressions occurring spontaneously in real-life situations.

In their study Spignesi and Shor selected 10 photographs from popular American magazines and asked observers to judge them under three conditions - face alone, face plus context, and context alone (face masked out). The findings were not convergent in demonstrating systematic dominance of face or context in observer's recognition of the emotions being experienced, but the ecological validity of using spontaneous expressions was borne out in this research. However, Spignesi and Shor used only one of Schlosberg's (1941) dimensions of emotion. One aim of the present study was to extend the analysis to both the Pleasant - Unpleasant, and Attention - Rejection scales, in an attempt to elucidate whether there were systematic differences between observers who were presented the face alone and those who received facial and contextual information. Our intention was not to test the face versus context hypothesis, but to determine whether the addition of contextual information would systematically influence ratings on the two Schlosberg dimensions. For the theoretical and methodological reasons mentioned above, such analysis seems highly desirable. As in the Spignesi and Shor research, an attempt was made to provide real life photographs in emotionally potent contexts.

An additional facet of our study was that the data were collected in a non-Western culture, enabling a cross-cultural comparison of our findings and those obtained by Spignesi and Shor. Cross-cultural research in this field has been directed largely toward the controversy over universal versus culture-specific non-verbal expressions of emotion. To date the weight of evidence leans toward the view first articulated by Charles Darwin (1872) and reformulated by Paul Ekman and his associates, that non-verbal expressions of emotion are primarily universal (Ekman, 1972; Ekman & Friesen, 1975; Ekman, Friesen, & Ellsworth, 1972). In support of this theory, Ekman has conducted several cross-cultural comparison in which persons from different countries provided labels to photographs of expressions of primary emotions such as happiness, sadness, anger, disgust, surprise and fear. In one study (Ekman et al., 1972), observers from Brazil, Argentina and Chile were found to assign similar labels to those given by Europeans. The only study of this type carried out in Papua New Guinea (see Ekman, 1973) reported a high level of similarity between the judgements of persons in a remote New Guinean village, who had experienced little contact with Western cultures, and college students in the United States. One exception was fear, which the New Guinean sample confused with surprise.

More recently, Boucher and Carlson (1980) have also reported similarities between American and Malay observers judging expressions from both cultural groups.

Contrasting with these studies are ones in which cross-cultural differences in perceptual judgements have been recorded. Deregowski, Ellis, & Shepherd (1975) noted that Kenyan and British adolescents used different facial characteristics when describing faces. Kilbride and Yarczower (1976) found significant differences in recognition of facial expressions by Baganda (Uganda) and American first-grade children. A later study by these authors (Kilbride & Yarczower, 1980) found that Zambian students, ranging from 6-7 year olds to college students, showed lower recognition accuracy of the Izard (1969) photographs than did an age-equivalent sample of Americans. Japanese - American differences in interpretation of nonverbal behaviors during interpersonal communication have been described by Rudden and Pranduan (1978).

In Summary, while the evidence obtained by Ekman and his colleagues strongly supports the universal process viewpoint, sufficient examples of cross-cultural discrepancies in recognition or interpretation of emotional expressions have emerged to justify continued cross-cultural research in this field. A second aim of the present investigation was to assess the utility of the Schlosberg dimensions in a Melanesian cultural setting, to evaluate the susceptibility of these scales to differences between observers using facial information alone and facial plus contextual information. This provides an opportunity to compare our data with that gathered in previous research (Spignesi & Shor, 1981).

Finally, one problem inherent in the use of a selection of real-life photographs is the possibility that the pictures chosen might exhibit facial expressions that are markedly incongruent with the context within which they appear. Thus, context versus no-context differences might arise because of a biased choice of photographs, the viewing of which would necessarily yield a difference in judgements of emotions expressed. Accordingly, we asked all our subjects to rate the facial expressions seen in context on an appropriate - inappropriate scale to provide an indication of whether interpretation of the results in terms of context versus no-context differences may have been contaminated by such a bias.

METHOD

Subjects

Eight female and 24 male students in the introductory psychology class at the University of Papua New Guinea served as subjects. Their ages ranged from 18 - 40 years.

Materials

Each subject received a set of 30 folders containing one photograph each. One face in each photograph was visible through a cut-out in the folder and each was designated by a number printed beside it. The photographs were all selected from "The Best of Life" by D.E. Scherman (Ed.) New York: Avon, 1975, and depicted mostly North American scenes in order to provide comparable stimuli to those used in earlier facial expression judgement experiments.

Procedure

Sixteen subjects were randomly assigned to each of two groups -- a context group and a no-context group.

Subjects in the no-context group examined the faces showing through the cut-outs, without opening the folders. Subjects in the context group opened the folders and examined the whole photographs including the faces exposed in the cut-outs.

After examining each face, subjects in both groups were required to judge how pleasant the person in the photograph was feeling. This judgement was indicated by rating the facial expression on a Pleasant-Unpleasant (P-U) scale such that a facial expression suggesting that the person was experiencing something extremely pleasant was rated 10, an expression suggesting extreme unpleasantness rated zero, and a totally neutral face rated 5.

A similar judgement was made for each photograph on an Attention-Rejection (A-R) scale, with a rating of 10 being given to facial expression suggesting an extremely high level of attention and zero to an expression suggesting that an extremely high level of rejection was felt by the person. A neutral expression on this dimension was rated 5.

When subjects had completed these two sets of ratings for all 30 pictures, they were provided with captions for each photograph which explained the actual setting in which the person was pictured. All subjects were then allowed to open the folders and consider the photographs in context. Using the information provided by the captions and by the photographs themselves, subjects were required to decide if the facial expressions appropriately displayed what they believed the person in each photograph should be feeling in that situation. This was indicated for each photograph using an Appropriate - Inappropriate (A-I) rating scale. A rating of 4 indicated that the facial expression seemed to be highly appropriate for that situation, whereas a facial expression judged to be highly inappropriate was rated zero.

RESULTS AND DISCUSSION

Significant differences between the ratings of observers in the context and no-context conditions were obtained, with the Mann-Whitney U test, on 11 (37%) of the 30 photographs in respect of the Pleasant Unpleasant dimension and 8 photographs (27%) on the Attention Rejection scale. This finding illustrates that presentation of facial and contextual information together can, in many instances, have an impact on observers' judgements of emotional expressions when compared with judgements based on facial cues alone. In addition, examination of the extent to which observers believed the facial expressions to be appropriate or inappropriate in the context, after they were told the precise nature of that context, reinforces the suggestion that contextual cues are important. The mean appropriateness rating on the 0-4 scale was 2.9, with a low standard error of .129, indicating that differences between the context and no-context groups were unlikely to have been due to any bias resulting from incongruity between the facial expressions and the context in which they were embedded.

Overall, the findings of the present study corroborate those obtained by Spignesi and Shor (1981) and support the conclusions drawn by these authors concerning the ecological validity of using spontaneous emotional expressions. Since both studies have demonstrated a reliable influence of contextual cues, previous research using faces in isolation must be viewed with reservation.

Lastly, this study confirms the utility of Schlosberg's (1941) Pleasant - Unpleasant, and Attention - Rejection dimensions in discriminating between context and no-context observers. While the present data are not directly

comparable with Spignesi and Shor's, since a different set of photographs was used, they do illustrate a similar pattern and can be regarded as a cross-cultural validation of the previous findings. They also support the research carried out in Papua New Guinea by Ekman (1973) and provide further confirmation of the universal process theory of emotion perception.

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