

QUT Digital Repository:  
<http://eprints.qut.edu.au/>



Tombs, Alastair and Russell-Bennett, Rebekah (2007) The Efficacy of Facial Expression in Determining Emotions Associated with Cross Cultural Service Failures. In *Proceedings 2007 Australia And New Zealand Marketing Academy Conference (ANZMAC)*, pages pp. 2713-2721, Dunedin, New Zealand.

© Copyright 2007 (please consult author)

# **The Efficacy of Facial Expression in Determining Emotions Associated with Cross Cultural Service Failures**

**Alastair Tombs, University of Queensland  
Rebekah Russell-Bennett, Queensland University of Technology**

## **Abstract**

Service failures are often accompanied by negative customer emotions. The appropriate response to the customer by the firm depends on the ability of the service employee to interpret these emotions accurately. This ability to accurately interpret the emotional expression of customers is important because of the fact that 70-95% of dissatisfied customers do not verbally complain. It becomes even more important when customers and service providers are from different cultural backgrounds. We report on an experiment conducted where we tested 153 respondents' (frontline service employees from East Asian and Anglo cultures) ability to recognise the emotions of customers (also from Asian and Anglo cultures) that had experienced a service failure.

## **Introduction**

For the customer, frontline employees are the face of the organisation. They play a critical role in creating the firm's image, fulfilling the firm's promises and promoting its services (Bettencourt and Brown, 1997; Shostack, 1977). When the service firm fails in some part of its delivery, the customer often looks to the frontline employees as the first point of contact to express their dissatisfaction and expect some solution. This service failure is often accompanied by negative customer emotions and lower perceived service quality (Smith and Bolton, 2002; Tax, Brown, and Chandrashekar, 1998). However the ability of the frontline employee to accurately interpret these emotions is likely to influence the way they manage the situation and the customer. In this paper we suggest that the ability to interpret these emotions, and subsequently adapt to the situation, becomes harder when the service provider and customer are from different cultural backgrounds. Given that that 70-95% of dissatisfied customers do not verbally complain (Harari, 1992; Plymire, 1991) recognition of the customer's felt emotions, when things go wrong, becomes a critical attribute in the skills of a frontline service employees. This study investigates whether the customer's felt emotions following a service failure can be recognised by the service employee. It also examines the role culture has in the service employee's interpretation of the emotions felt by the customer.

## **Emotional Expression in Service Failures**

Research into managing emotions in a service failure context has been undertaken from both the employee and customer perspective. The marketing literature however, primarily deals with customers and has focussed on identifying the discrete emotions experienced (Hedrick, Beverland and Minchan, 2007; Magnini and Ford, 2004), the outcomes of the emotions (Bougie, Pieters and Zeelenberg, 2003; Smith and Bolton, 2002) and antecedents such as service provider criticism,

lack of knowledge or customer / service provider errors (Grace 2007). While experienced emotion and its role during a service failure has been investigated (e.g. Au, Hui, and Leung, 2001; Wong, 2004) there appears little research that focuses on emotional expression, particularly where the customer may have little or no awareness of their emotional state. Moreover, the research reported in the literature examines the emotions felt by customers through data that is collected from respondent's (customer's) self reports. While this tells researchers what emotions the customers may be experiencing during or after a service failure it does not explain whether the service provider can accurately interpret these emotions. Given the inseparability of the production and consumption in most services it is likely that service providers and customers enter into a face to face transaction. In a face-to-face interaction, changes in customer's facial expressions are visible to the service-provider, while changes in other body movements (e.g. clenching of fist) are less accessible. This is particularly the case for services that use counters (i.e. hotels, banks, airlines) where parts of the body are hidden from the service-provider's view. Moreover, the significance of the use of facial expressions to judge emotion is supported by the weight of empirical evidence in this area (e.g. Biehl, Matsumoto, Ekman, and Hearn, 1997; Ekman, 2003; Grandey, Fisk, Mattila, Jansen and Sideman, 2005). Therefore, it is our contention that even if a customer does not verbally complain during or after a service failure the negative emotions felt by the customer may in fact leak through other forms of emotional display such as facial expressions. The ability to recognise and interpret emotion is thus valuable to people working in direct contact with customers because they can use the information gained to encourage positive emotions in customers (Jordan and Troth, 2002). A primary gap in the literature is identifying the accuracy of service-providers to interpret emotional expression by customers in service failure context.

### **Emotional Expressions and Cultural Display Rules**

Variation in desire for particular services, the interpretation of information, and display of emotions are influenced by culture (Neal, Quester, and Hawkins, 2004; White, 2003). This is because members within a culture structure their behaviour based on a shared set of values, which they have learnt through socialisation (Neal et al., 2004). Emotions can be culturally specific and are influenced by social contexts (Becht and Vingerhoets, 2002). Previous research that has studied the difference in linguistic ability to denote emotions in different cultures supports the notion that emotions are culturally bound (e.g. Kobayashi, Schallert, and Ogren, 2003; Ye, 2004). While researchers in emotional expression (e.g. Ekman, 2003, Ekman and Freisen, 1975) have shown there is no difference in people from different cultures showing basic emotions such as happiness, sadness or anger through their facial expressions their cultural display rules manage these innate expressions to deliver feelings in a form that is culturally acceptable. These display rules define the norms of different individuals in the expression of that individual's emotion (Ratner, 2000). For instance seeing a Japanese person whose cultural display rules encourage smiling when confronted with sad news may lead to an interpretation of happiness, disgust or surprise emotion by someone who has not been socialised in the culture.

Cultural sensitivity when interpreting the displayed emotions of others is likely to be less crucial in the interaction between service-provider and customer from similar cultures. However, cultural sensitivity may become more important when the interaction occurs between parties of different cultures. The difference in importance is attributed to the likelihood of dissimilar

interpretation and expectation of individuals from different backgrounds (Earley and Ang, 2003). In addition to the usual concerns of service delivery, service-providers in cross-cultural interactions need to factor in the role of culture on perception of service quality. This is supported by research of Wong (2004) and Mattila and Patterson (2004), which has established that culture has an influence on customer's perception of service recovery.

### **Hypothesis development**

Ratner (2000) acknowledged that the cultural rules of expression can easily overrule the physical tendencies for expressing emotions. As such, the difference in cultural norms may reduce one's ability to recognise emotion from someone of a different culture. Consequently, familiarity with the customer's culture can increase the service-provider's ability to recognise the emotions. Hence we hypothesize that: *H1: There will be a significant difference between the service provider's perception of emotions displayed by customers of a similar culture to the service provider, compared to the perception of those displayed by customers of a different culture to the service provider.*

In a broad comparison, East Asian cultures display fewer and lower intensity of emotions to Anglo cultures. Individuals from the former are also more likely to attribute the cause of the service failure to either an uncontrollable external factor (e.g. fate and luck) or to themselves. On the contrary, those from Anglo cultures tend to blame the service failure on the provider, less on other external factors, and even less on themselves (Aaker and Williams, 1998). Both cultures may also use the same emotional expression to represent different internal feelings, for example, a smile may represent happiness for both cultures, but in some situations, East Asian cultures use it to represent sadness and sympathy, while Anglo cultures use it to disguise disgust and surprise (Frank and Stennett, 2001). Compared to Anglo cultures whose display rules are relatively constant across nations there is greater variation in emotional display rules across East Asian nations. Therefore, we hypothesise: *H2: It is likely that there will be differences between the number of felt customer emotions accurately recognised by a service provider in the Anglo cluster compared to the East Asian cluster.*

### **Methodology**

These hypotheses were tested by conducting an experiment manipulating the facial expressions of actors from East Asian and Anglo cultures (playing the role of an annoyed or angry customer) and testing respondents' (services providers from East Asian and Anglo cultures) ability to recognise these emotions. The actors were filmed playing the role of the complaining customer with pre-tests to identify the final versions. The audio track was removed from the videos keep the focus on the facial expressions of the complaining customers and remove any contamination from verbal cues. The videos were edited down to 30 second clips. The actors were asked to rate how they felt as the customer in the script (based on Richin's (1997) CES). The experiment involved showing the video to respondents, asking them to assume they were taking the role of the customer service employee, and assessing whether they could accurately read the non-verbal emotions. This experiment conformed to a 2 (service-provider's cultural background) x 2 (customer's cultural background) factorial design. The participants consisted of 153 postgraduate students from a major Australian university. The ages ranged from 18 to 50 years old (68% were

between 21 and 30); 58.6% were female; 59.5% East Asian and 40.5% Anglo. 85.3% had current or recent experience working in customer service roles.

## Results

A confirmatory factor analysis was also conducted on the emotional descriptors perceived by the respondents. The CFA confirmed that there were four factors (anger, happiness, shame and fear) that could describe the actors' (customers') emotions that could be perceived by the respondents (service providers). A composite score for each of these four basic emotions was calculated by combining the mean score of each descriptor in each factor. Support was initially not found for Hypothesis 1. A MANCOVA was conducted over the entire sample using the cultural match/mismatch of the service providers as the independent variable and the 4 emotional factors as the dependent variables. The age, gender and emotional intelligence of the service providers were held constant as covariates. The results of this analysis indicated that there was no significant difference between service-providers' perceptions of customers from the same culture and service-providers' perceptions of customers from a different culture ( $F[4,121] = 0.374$   $p > 0.10$ ). While the result indicates there is no difference between culturally matched and mismatched service-providers and customers, the results do not reveal whether this lack of difference exists for both East Asian and Anglo clusters or for only one of these clusters. Therefore further analysis was done to determine if the differences with culturally mismatched customers was present for either set of service-providers. To conduct this analysis, the sample was split into two groups: Anglo and East Asian service-providers. Within each group, a MANCOVA was conducted with the match/mismatch between the service provider's and the customers' culture as the independent variables and the service-provider's (East Asian or Anglo) perception of the customers' emotions (four basic emotions) as the dependent variable. The results indicate that there are significant differences in the perceptions of customers' emotions by both Anglo ( $F[4,48] = 10.137$   $p = 0.000$ ) and Asian ( $F[4,63] = 6.332$   $p = 0.000$ ) service-providers. Therefore providing support for Hypothesis 1. The univariate results revealed a significant difference between the matched/mismatched cultures in their perception of customers' emotions for three of the four factors (anger, happiness and fear) (refer Table 1).

**Table 1: Univariate results for Hypothesis 1**

	Anglo Service Provider (SP perceptions of emotions of East Asian vs Anglo customers)				East Asian Service Provider (SP perceptions of emotions of East Asian vs Anglo customers)			
	<i>F</i>	Partial Eta Square	Mean score for Anglo customers	Mean score for E-Asian customers	<i>F</i>	Partial Eta Square	Mean score for Anglo customers	Mean score for E-Asian customers
Anger	27.972 ***	.345	3.271	2.215	25.188 ***	.276	2.783	2.078
Happiness	21.050 ***	.292	1.329	2.054	5.612 *	.078	1.474	1.843
Shame	1.381 NS	.026	1.563	1.378	.577 NS	.009	1.939	1.809
Fear	15.701 ***	.235	2.176	1.453	8.785 **	.177	2.314	1.805

\*\*\* Significant at 0.000; \*\* Significant at 0.005; \*Significant at 0.05

While the results showed that there are differences in perception of customers' emotions between culturally matched/mismatched service-providers and customers for both Anglo and East Asian clusters, further analysis was needed to identify which group of customer emotions is more

accurately recognised by each group of service-providers. So for instance while we knew that Anglo service-providers have differences in their perception of emotions of culturally matched/mismatched customers, we didn't know which cultural customer group was more accurately perceived. Further analysis was therefore undertaken to identify which cultural customer group's emotions were more accurately recognised. To achieve this, a MANCOVA was conducted with the service provider's and customer's culture as the independent variables. The dependent variables were taken as the gap between the service-provider's (East Asian or Anglo) perception of the customers' emotions (four basic emotions) and the actual emotions felt by the customer in each video. The age, gender and emotional intelligence of the service providers were again held constant as covariates. The results indicate that there are differences in the accuracy of emotional perceptions due to the culture of the customer ( $F[4,118] = 34.007$   $p=0.000$ ) and the cultural background of the service provider ( $F[4,118] = 7.971$   $p=0.000$ ). To discover the extent of the accuracy of recognition of the various emotion factors univariate tests were undertaken. Tests of the between subjects effects of customers' region on the respondents ability to accurately recognise each of the 4 emotion factors revealed that customer culture influences the recognition of happiness ( $F[4,118] = 47.819$   $p=0.000$ ) and shame ( $F[4,118] = 8.886$   $p=0.000$ ) but not anger and fear. The corresponding marginal means revealed that overall; the respondents (service providers) over estimated the East Asian customers' level of happiness ( $\underline{M} = .690$ ,  $\underline{SD} = .10$ ) and underestimated the Anglo customers' level of happiness ( $\underline{M} = -.653$ ,  $\underline{SD} = .09$ ). The service providers' perception of shame occurred the opposite way around ( $\underline{M} = -.273$ ,  $\underline{SD} = .11$ ) and ( $\underline{M} = .305$ ,  $\underline{SD} = .10$ ) respectively. The respondents saw almost no difference in the levels of anger due to the customers cultural background ( $\underline{M}_{\text{anglo}} = -.903$  vs  $\underline{M}_{\text{SE Asian}} = -.949$ ). The effects of the service providers' region on the respondents ability to accurately recognise each of the 4 emotion factors revealed that the service providers' culture only influences the recognition of shame ( $F[4,118] = 12.712$   $p=0.000$ ) but not anger, happiness or fear. The corresponding marginal means revealed that overall; the East Asian respondents (service providers) over estimated the customers' level of shame ( $\underline{M} = .383$ ,  $\underline{SD} = .10$ ) while the Anglo respondents underestimated the customers' level of shame ( $\underline{M} = -.351$ ,  $\underline{SD} = .09$ ). However when the interaction between the service providers' culture and the customers' culture are considered, then univariate effects are seen on all 4 emotion factors: Anger ( $F[4,118] = 4.284$   $p<0.05$ ), happiness ( $F[4,118] = 6.470$   $p<0.01$ ), shame ( $F[4,118] = 6.960$   $p<0.01$ ) and fear ( $F[4,118] = 5.267$   $p<0.05$ ). The associated estimated marginal means showed that service providers were more accurate at recognising the emotions from customers of a similar culture (matched) than those of a dissimilar culture (mismatch). For example; Anglo service providers were more accurate at recognising anger in Anglo customers than they were with East Asian customers ( $\underline{M}_{\text{anglo}} = -.673$  vs  $\underline{M}_{\text{SE Asian}} = -.953$ ). Conversely East Asian service providers less more accurate at recognising anger in Anglo customers than they were with East Asian customers ( $\underline{M}_{\text{anglo}} = -1.134$  vs  $\underline{M}_{\text{SE Asian}} = -.944$ ).

## Conclusions

Consistent with hypothesis 1 there was a significant difference in the perception of the customers displayed emotions dependent on the cultural match/mismatch. Hypothesis H2 correctly anticipated that Anglo service-providers would be more likely to accurately recognise the emotions of Anglo customers and East Asian service-providers would be more likely to accurately recognise the emotions of East Asian customers. We can deduce from these findings

that in service failures, a customer's emotions are able to be recognised by through the facial expressions of the customer. The degree of accuracy in this recognition is dependent upon the service provider's familiarity with the customer's culture and their ability to understand the cultural norms associated with the display of emotions. An understanding of how culture is related to expressiveness and experience of emotions will aid the service-provider in providing better service to the customers and assist the theoretical understanding of the role emotions play in service contexts.

## References

- Aaker, J.L., Williams, P., 1998. Empathy versus pride: The influence of emotional appeals across cultures. *Journal of Consumer Research* 25 (3), 241-261.
- Au, K., Hui, M.K., Leung, K., 2001. Who should be responsible? Effects of voice and compensation on responsibility attribution, perceived justice, and post-complaint behaviors across cultures. *International Journal of Conflict Management* 12 (4), 350-364.
- Becht, M.C., Vingerhoets, A.J.J.M., 2002. Crying and mood change: A cross-cultural study. *Cognition and Emotion* 16 (1), 87-101.
- Bettencourt, L.A., Brown, S.W., 1997. Contact employees: Relationships among workplace fairness, job satisfaction and prosocial service behaviors. *Journal of Retailing* 73 (1), 39-62.
- Biehl, M., Matsumoto, D.R., Ekman, P., Hearn, V., 1997. Matsumoto and Ekman's Japanese and Caucasian facial expressions of emotion (JACFEE): Reliability data and cross-national differences. *Journal of Nonverbal Behavior* 21 (1), 3-21.
- Carroll, J.M., Russell, J.A., 1996. Do facial expressions signal specific emotions? Judging emotion from the face in context. *Journal of Personality and Social Psychology* 70(2), 205-218.
- Chovil, N., Buck, R., Fridlund, A.J., 1991. Social determinants of facial displays-comment/reply. *Journal of Nonverbal Behavior* 15 (3), 141-154.
- Earley, P. C., Ang, S., 2003. *Cultural intelligence: Individual interactions across cultures*, Stanford University Press, Stanford, California.
- Ekman, P., 2003. *Emotions revealed: Recognizing faces and feelings to improve communication and emotional life*, Times Books, New York.
- Ekman, P., Friesen, W.V., 1975. *Unmasking the face: A guide to recognizing emotions from facial clues*, Prentice Hall, Upper Saddle River, N.J.
- Frank, M.G., Stennett, J., 2001. The forced-choice paradigm and the perception of facial expressions of emotion. *Journal of Personality and Social Psychology* 80(1), 75-85.
- Grace, D., 2007. How embarrassing! An exploratory study of critical incidents including affective reactions. *Journal of Service Research* 9 (3), 271-284.
- Grandey, A.A., Fisk, G.M., Mattila, A.S., Jansen, K.J., Sideman, L.A., 2005. Is "service with a smile" enough? Authenticity of positive displays during service encounters. *Organizational Behavior and Human Decision Processes* 96 (1), 38-55.
- Harari, O. 1992. Thank heaven for complainers. *Management Review* 81 (1), 59-60.
- Hedrick, N., Beverland, M., Minchan, S., 2007. An exploration of relational customers' response

to service failure. *The Journal of Services Marketing* 21 (1), 64-72.

Hess, U., Blairy, S., Kleck, R.E., 2000. The influence of facial emotion displays, gender, and ethnicity on judgments of dominance and affiliation. *Journal of Nonverbal Behavior* 24 (4), 265-283.

Jordan, P.J., Troth, A.C., 2002. Emotional intelligence and conflict resolution: Implications for human resource development. *Advances in Developing Human Resources* 4 (1), 62-79.

Kobayashi, F., Schallert, D.L., Ogren, H., 2003. Japanese and American folk vocabularies for emotions. *Journal of Social Psychology* 143 (4), 451-478.

Magnini, V.P., Ford, J.B., 2004. Service failure recovery in China. *International Journal of Contemporary Hospitality Management* 16 (5), 279-286.

Matsumoto, D.R., 1989. Face, culture, and judgments of anger and fear: Do the eyes have it? *Journal of Nonverbal Behavior* 13 (3), 171-188.

Mattila, A.S., Patterson, P.G., 2004. Service recovery and fairness perceptions in collectivist and individualist contexts. *Journal of Service Research* 6 (4), 336-346.

Neal, C., Quester, P.G., Hawkins, D.I., 2004. *Consumer behaviour: Implications for marketing strategy*, 4th edn., McGraw-Hill, North Ryde, N.S.W.

Plymire, J., 1991. Complaints as opportunities. *Journal of Consumer Marketing* 8 (2), 39-43.

Ratner, C., 2000. A cultural-psychological analysis of emotions. *Culture and Psychology* 6 (1), 5-39.

Richins, M.L., 1997. Measuring emotions in the consumption experience. *Journal of Consumer Research* 24 (2), 127-146.

Shostack, G.L., 1977. Breaking free from product marketing. *Journal of Marketing* 41 (2), 73-80.

Smith, A.K., Bolton, R.N., 2002. The effect of customers' emotional responses to service failures on their recovery effort evaluations and satisfaction judgements. *Journal of Academy of Marketing Science* 30 (1), 5-23.

Tax, S.S., Brown, S.W., Chandrashekar, M., 1998. Customer evaluations of service complaint experiences: Implications for relationship marketing. *Journal of Marketing* 62 (2), 60-76.

White, L., 2003. Buyer behaviour. In: J. R. McColl-Kennedy (Ed.), *Services marketing: A managerial approach*, John Wiley and Sons, Milton, Queensland, pp.24-50.

Wong, N.Y., 2004. The role of culture in the perception of service recovery. *Journal of Business Research* 57 (9), 957-963.

Ye, Z., 2004. The Chinese folk model of facial expressions: A linguistic perspective. *Culture and Psychology* 10 (2), 195-222.