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Situational and dispositional predictors of displays of positive emotions

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Summary The study examined the effects of situational (store busyness and customer demand) and dispositional (extraversion, neuroticism, and psychoticism) factors on the display of positive emotions. We found that for situational factors, customer demand was positively related to displayed positive emotions. For personality factors, extraversion was positively related to displayed positive emotions and neuroticism was negatively related to displayed positive emotions. Usefulness analysis showed that both situational and personality factors contributed significantly to explain the level of positive displayed emotion. Copyright © 2003 John Wiley & Sons, Ltd.

Research in emotions grew following the publication of Hochschild's (1983) *The managed heart* and the momentum was sustained by Rafaeli and Sutton's work of emotional expression as part of work role (1987; 1989; Sutton & Rafaeli, 1988). The work role necessitates the adoption of organizational norms on the emotions that organizational members ought to display to non-organizational people. This norm is especially pronounced for organizations in the service sector where employees are expected to establish positive rapport with their customers (Sutton & Rafaeli, 1988). Service employees are often the only contact that customers have with the organization and therefore the projection of the right emotions is important in enhancing the organization's public image.

Goffman's (1969) work on strategic interaction showing that people manipulate emotional expressions to promote their own interests provides evidence of how the expression of emotions could impact one's customers. Managers on their part have also often adopted the stance that conformance to organizational 'display rules' (Ekman, 1973) will result in behaviors that promote organizational goals. Empirically, this has been seen as too simplistic because adherence to organizational norms holds only to a certain extent. For example, Sutton and Rafaeli's (1988) study on convenience store clerks showed that situational variables, such as busy times or slow times, challenge and even override norms. Another study by Rafaeli and Sutton (1990) found that store busyness was negatively related to displayed positive emotions while customer demand was positively related to displayed positive emotions. Others (e.g., Pugh, 2001) have discussed how dispositional factors affect employees' behaviors. For example, employees who are extraverts are proposed to display more good cheer than those who are introverts (Rafaeli, 1989a).

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The current study extends the work of Rafaeli and Sutton by including both situational and individual characteristics as predictors of displayed emotions. Neither factor by itself sufficiently explains these displays. The impact of personality constructs on emotions has been studied in social psychology (e.g., Friedman, Prince, Riggio, & DiMatteo, 1980; Gross, John, & Richards, 2000). Seminal work by Friedman et al. (1980) found the Affective Communication Test to be a reliable and valid measure of individual differences in expressiveness/charisma. Recently, Gross et al. (2000) have taken a personality perspective on their work on emotional expressivity. Although Rafaeli (1989a) suggested that extraverted employees are more likely to act in a helpful and social manner, few studies with Pugh (2001) as a notable exception have explored the effects of personality traits on service employees' displays of positive emotions. As such, the current study contributes to previous theoretical and empirical research by including Eysenck's three dispositions—extraversion, neuroticism, and psychoticism—in understanding their effects on displayed emotions. Moreover, we argue for person–situation effects. For instance, individuals with high mood swings may not be able to adjust to busy work situations as well as those with less mood swings and thus are less likely to display positive emotions during busy work situations.

This study, therefore, explores the factors that impact the display of positive emotions by adopting an interactionist perspective that asserts that, in addition to situational factors, the personality of the employees also plays a role in the display of positive emotions. Interactions between situational demands and personality constructs are also hypothesized. Figure 1 shows the framework for the study.

Hypotheses Development

This study includes both work context and employee characteristics as determinants of employee displayed emotions. Figure 1 shows how work context, as represented by store busyness and customer demand, affects employee displayed emotions. These contextual factors were chosen because they were used by Rafaeli and Sutton and more recently by Tsai (2001) to represent work context. We then extend the study by showing how employee characteristics, as represented by personality, also influence the display of positive emotions. We chose personality traits that affect behaviors across different contexts. Further, Rafaeli and Sutton (1987) alluded to but did not test the effects of personality on displayed emotions. The rest of this section presents the arguments to support the hypotheses presented in Figure 1.

Work situation and displayed positive emotions

Rafaeli and Sutton (1989) examined two situational cues of store busyness and customer demand. Store busyness is a cue from the setting of the transaction (Rafaeli & Sutton, 1989). It reflects the number of people in the setting but external to the transaction. In Sutton and Rafaeli (1988), it was observed that customers expected convenience store clerks to be friendly during slow times but fast and businesslike during busy times. Sutton and Rafaeli (1988) proposed that store pace was the cause and not an effect of expressive behavior in the convenience stores studied. Store pace is a cue that determines which norms apply at that time. For busy times, norms are such that clerks view customers as inputs for rapid processing. Employees under time pressure are expected to be more task-oriented and less

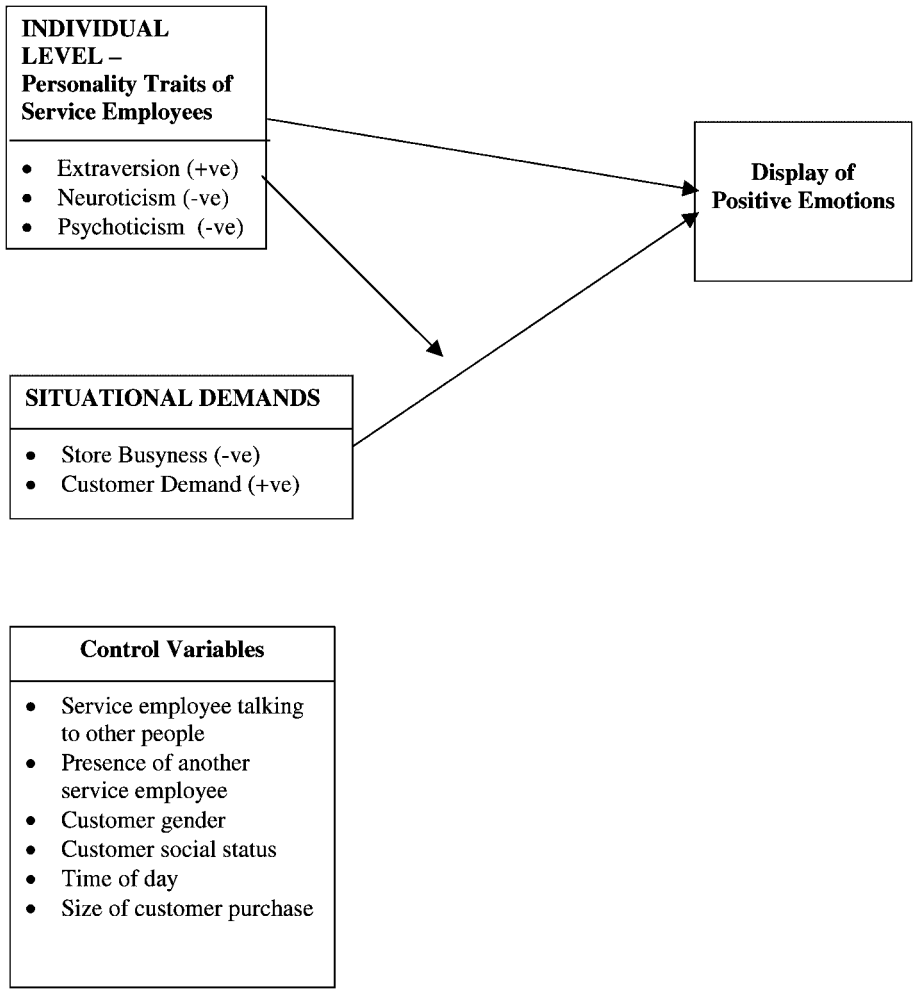

Figure 1. Theoretical model of service employee display of positive emotions (adapted from Rafaeli and Sutton, 1989)

friendly (Isenberg, 1981). Hence efficiency rather than friendliness is emphasized. Similarly, Pugh (2001) found a negative relationship between busyness and displays of positive emotions.

Customer demand is another transaction-defining cue. It is the extent to which a transaction requires a prolonged and complex response from a cashier (Rafaeli & Sutton, 1990). Rafaeli (1989b) suggested that cashiers use the display of positive emotions to gain control over demanding customers. Qualitative work (Bigus, 1972; Mars & Nicod, 1984) also illustrated how service employees can influence and control customers by the display of positive emotions. Rafaeli and Sutton (1990) found that there is less need for service employees to use emotions to control less demanding customers. Instead, positive relationships between the display of positive emotions by cashiers and demanding customers were found. To replicate previous findings, we hypothesize that:

Hypothesis 1: Interactions of service employees in a less busy store situation are characterized by the display of more positive emotions by service employees than interactions of service employees in a busier store situation.

Hypothesis 2: Interactions of service employees with more demanding customers are characterized by the display of more positive emotions by service employees than interactions of service employees with less demanding customers.

Personality and displayed positive emotions

An individual's expression of emotions at work could be strongly influenced by personality traits (Pugh, 2001). We used Eysenck's three dimensions of personality—extraversion, neuroticism, and psychoticism—to test their effects on displayed emotions. The Eysenck Personality Questionnaire (EPQ) (Barrett, Petrides, Eysenck, & Eysenck, 1998) has been extensively used to assess personality. Eysenck's three broad dimensions of personality have been found to emerge from many studies employing a variety of questionnaires including the Minnesota Multiphasic Personality Inventory (MMPI), the Sixteen Personality Factors Questionnaire and the California Psychological Inventory (Eysenck & Eysenck, 1985). More importantly, biological factors underpin Eysenck's three-factor model, which provides stability in measurement over time and occasions (Eysenck & Eysenck, 1985). Another often used personality measure is McCrae and Costa's (1985) Big Five instrument. In its original form, McCrae and Costa based their NEO-PI instrument on a three-domain model encompassing the two pervasive traits of extraversion and neuroticism and a third: openness to experience. McCrae and Costa (1985) conducted factor analytic and correlational studies which showed that their neuroticism and extraversion factors were similar to those of Eysenck, while Eysenck's psychoticism was essentially covered by conscientiousness and agreeableness.

Of the two most commonly used personality scales—the EPQ and the NEO-PI (Saggino, 2000)—we chose the EPQ for several reasons. First, while we expected extraversion, neuroticism, agreeableness, and conscientiousness to be related to the display of positive emotions, we had no reason to expect openness to experience to be related to the display of positive emotions. Thus, it is more appropriate to use the EPQ instead of the Big Five in the context of service employees' interactions with customers. Second, in comparing the two sets of measures, Draycott and Kline (1995) conducted a study delving into the extent of overlap between the two scales developed by Eysenck and by McCrae and Costa. They concluded that the NEO-PI accounted for variance over and above that accounted for by the EPQ-R, but this residual variance failed to form appropriately sized factors representative of the Big Five. A high proportion of the variance shared between the two measures was attributed to the dimensions of extraversion and neuroticism (Draycott & Kline, 1995). The implication is that the five-factor model may not be the best account of personality variance. In addition to Draycott and Kline (1995), Saggino (2000) administered both the EPQ and the Big Five to a group of subjects and found that both scales shared much variance and the neuroticism and extraversion subscales accounted for most of the variance. Further, there is evidence that agreeableness and conscientiousness are facets of EPQ's psychoticism dimension (Draycott & Kline, 1995; Saggino, 2000). Thus, even if agreeableness and conscientiousness could be related to displayed emotions, this relationship could be captured by EPQ's psychoticism dimension. Third, a recent study by Barrett et al. (1998) tested the EPQ across 34 countries and found that the dimensions of extraversion, neuroticism, and psychoticism to be replicable across all 34 countries. Singapore was included in the 34 countries tested. This gave us confidence that the EPQ scale would be valid in Singapore, where the present study was conducted.

The personality variables of Eysenck are also in line with the work on positive and negative affect. Negative affect (NA) reflects the disposition to experience negative affective states and is independent of positive affect (PA) (Watson & Clark, 1984; 1997). Recent work has found that PA and NA correspond to the extraversion and neuroticism dimensions of the Big Five. Individuals high on NA tend to

think and act in ways supportive of negative affective experiences and are more likely to experience negative affective states over time and across situations. That is, high-NA individuals have an overall negative orientation towards themselves and the world around them, while high PA individuals have an overall positive orientation (George, 1992).

According to Eysenck and Eysenck (1991), the extraversion construct suggests that individuals high on extraversion are more likely to act in a friendly and social manner. Watson and Clark (1997) noted that extraversion is closely linked to positive affect, which in turn expresses itself in positive moods. When cashiers experience positive moods on the job, it would be much easier for them to express positive emotions in their interactions with customers (Morris & Feldman, 1996).

Individuals high in neuroticism tend toward anxiety and depression, allow emotions to affect judgment, and are preoccupied with things that might go wrong (Eysenck & Eysenck, 1991). They are more likely to be affected by negative life events (Suls, Green, & Hillis, 1998). In contrast, individuals low on neuroticism recover quickly after an emotionally upsetting experience and are generally calm and unworried (Eysenck & Eysenck, 1991). In job-related performance, individuals with low neuroticism are able to maintain calm over a range of stressful conditions, such as interpersonal conflict and time pressures. Service employees are placed on the front-line, and are required to interact with people all the time. Hence there are more opportunities for service employees to experience negative events with customers. An individual high in neuroticism might not be able to cope with such stress related to the nature of the job, and thus display less positive emotions in their interactions with customers than an individual low on this dimension.

Eysenck and Eysenck (1976) stated that the psychoticism scale correlates significantly with traits such as non-acceptance of cultural norms, immaturity, and anti-authority attitudes. Those low on psychoticism are agreeable, conform to rules, and are cooperative, good-natured, caring, and tolerant (Eysenck & Eysenck, 1991). Individuals low in psychoticism are more likely to conform to rules laid out by organizations in displaying positive emotions in their interactions with customers. In sum, we hypothesize that:

Hypothesis 3: Interactions of service employees with high extraversion traits are characterized by the display of more positive emotions by service employees than interactions of service employees with low extraversion traits.

Hypothesis 4: Interactions of service employees with high neuroticism traits are characterized by the display of less positive emotions by service employees than interactions of service employees with low neuroticism traits.

Hypothesis 5: Interactions of service employees with high psychoticism traits are characterized by the display of less positive emotions by service employees than interactions of service employees with low psychoticism traits.

Interaction effects of work situation and personality on displayed positive emotions

Individuals high in extraversion are generally more sociable, with a focus on activities that are sensation-seeking. Hence we expect that during busy periods employees high in extraversion, being sociable and enjoying people and activities, are better able to use their social skills to generate more positive emotions to gain control over the demanding customer. Therefore, employees high in extraversion will display more positive emotions with demanding customers. On the other hand, employees low in extraversion tend to be quiet and prefer an orderly life (Eysenck & Eysenck, 1991). They may find the demanding customer disruptive and display less positive emotions. This is because demanding customers remove order from the social space of introverts and squelch the introverts' display of positive emotions.

Individuals high in neuroticism are more negatively affected than individuals low in this dimension during demanding work situations. Individuals high in neuroticism tend towards anxiety and depression and allow emotions to affect judgment (Eysenck & Eysenck, 1991). In a busy store, there will be pressure for employees to work fast, while demanding customers require greater efforts on the employees to satisfy extra requests. These situations can aggravate individuals high in neuroticism. Therefore, there will be a greater decrease in displayed positive emotions among individuals high in neuroticism, as compared with individuals low in this dimension during busy periods and when faced with demanding customers.

Finally, we turn to the effects of psychoticism on displayed emotions during different work situations. Individuals high in psychoticism conform less to rules, are less tolerant, and are less good-natured (Eysenck & Eysenck, 1991). They are usually impulsive, aggressive, and react badly to stress (Eysenck, 1997). By extending it to the work context, during a demanding work situation, individuals high in psychoticism would be more negatively affected because they can be aggressive toward the customers, or at least less likely to display positive emotions. Moreover, individuals high in psychoticism are more insensitive and probably less able to use positive emotions as a mechanism to control demanding customers. The hypotheses are stated below:

Hypothesis 6a: The negative relationship between store busyness and the display of positive emotions will be weaker when service employees are higher in the extraversion trait.

Hypothesis 6b: The negative relationship between store busyness and the display of positive emotions will be stronger when service employees are higher in the neuroticism trait.

Hypothesis 6c: The negative relationship between store busyness and the display of positive emotions will be stronger when service employees are higher in the psychoticism trait.

Hypothesis 7a: The positive relationship between customer demand and the display of positive emotions will be stronger when service employees are higher in the extraversion trait.

Hypothesis 7b: The positive relationship between customer demand and the display of positive emotions will be weaker when service employees are higher in the neuroticism trait.

Hypothesis 7c: The positive relationship between customer demand and the display of positive emotions will be weaker when service employees are higher in the psychoticism trait.

Organizational Context

The data for this article was drawn from observations of seven stores located in Singapore as part of a U.S.-based fast-food restaurant chain selling fried chicken. This chain was started about 40 years ago and today, other than fried chicken, chicken burgers are also popular items on the menu. As is the trend with fast-food restaurants, in addition to the à la carte items, set meals are the norm and form the bulk of the orders in the restaurant. The first store in this chain was set up in Singapore in 1977 and currently there are over 60 stores in this chain, employing over 1700 employees. This compares with a total of 11 815 facilities of this chain restaurant worldwide employing a total of 167 850 employees. Typical of fast-food chains, most of the workers are hourly rated and work for the restaurants for a few months or a few years before moving on to other occupations. There is no minimum wage in Singapore but these workers receive about the lowest hourly rates in Singapore.

Training for the new employees is short, comprising several days of on-site training including watching videos, poring over instruction manuals and learning to operate the kitchen equipment. Thereafter, most of the training is done on the job by more senior colleagues, supervisors, and store managers.

Method

Sample and procedures

Data was collected in a major fast-food chain in Singapore. We collected data on a particular type of service employees: cashiers. Cashiers and customer interactions in such set-ups represent the most typical form of service encounters. The fast food context, together with most interactions of customer and retail employees, are 'encounters' where the customer-service employee relationship is short, where there is no or limited shared history of service between a specific service employee and the customer, where the parties in the transaction do not expect to interact again in the future, and where the personnel in the service employee roles are functionally equivalent (Gutek, 1995). Permission was granted by one of the area managers responsible for seven stores for study. Although there was a corporate handbook for training service employees, such as cashiers (e.g., a ten-step guide on how to serve a customer), conversations with the restaurant managers revealed that this was not practiced strictly and restaurant managers usually reduced the service to four main steps. Service employees, such as cashiers, first greeted and smiled at the customers, followed by taking and repeating orders. Such service employees were encouraged to make suggestions to customers' orders for the purpose of up-selling. Lastly, to end the transaction, service employees were to thank the customers.

Cashiers at the fast-food chain were trained on the four rules during the first three days on the job. Frequent reminders by restaurant managers reinforced the four steps. Moreover, mystery shoppers checked on each restaurant up to two times every month to evaluate the service provided. Hence there was some pressure for cashiers to conform to these four rules.

Unobtrusive observations and a 15-minute interview with each cashier were carried out in this study. Cashiers were interviewed after all the observations were collected so as to minimize demand effects. During the interview, cashiers were informed that their identities would be kept confidential and that the data would be used only for research purposes. Making hidden observations in a public place is considered ethical as the subjects are aware that their behaviors will be observed (Webb et al., 1981), but they are not aware when they will be observed.

Two hundred and fifty-two observations of interactions between customers and 42 cashiers were made. Six transactions were observed for each cashier. We treated each observation as a separate transaction. The observation methodology used was based on that developed by Rafaeli and Sutton (Rafaeli, 1989b; Sutton & Rafaeli, 1988). Three observers who were blind to the study's hypotheses collected observation data. After going through the observation and coding procedures, the three observers visited a store together and coded the same cashier independently. Differences in coding were discussed and resolved. Coder identifiers were also controlled for in the regression analyses. Observers then gathered the data independently during three weeks in January 2001. Each observer first acted as if he was queuing to buy something. After he had noted the name of the cashier to be observed, he sat down in the restaurant nearest to the counters to begin observations. The observer was in the restaurant for half an hour to an hour for each visit. This was possible as it was a fast-food

restaurant where customers could linger for as long as they liked. Trained observers were used to collect data on positive emotions as recent work by Bartel and Saavedra (2000) has found that trained observers' reports of work group moods were consistent with aggregated self-reported emotions.

Measures

Dependent variables

The dependent variable, the *general display of positive emotions* ($\alpha = 0.62$) was measured with six items. The first four items measured the mechanics of displayed positive emotions and comprised four behaviors: greeting, eye contact, smiling,[1] and thanking (Rafaeli, 1989b; Rafaeli & Sutton, 1990; Sutton & Rafaeli, 1988). A value of 1 was assigned for each behavior displayed and 0 otherwise. While these items are extensively used (e.g., Pugh, 2001), they do not capture the nuances of expressed emotions. Rafaeli and Sutton (1987) noted that expression of positive affect not only included smiling but also displays of enthusiasm. Ashforth and Humphrey (1993) further noted that customer perception of customer service also depended on the extent to which the service employee conveyed a sense of genuine interpersonal sensitivity and concern. To capture the nuances of expressed emotions in the fast-food context, we included two additional items to the scale: pleasantness and attentiveness.

Pleasantness measured the extent to which the cashier displayed a generally positive attitude or the extent to which the cashier's behavior toward a customer encouraged friendly interaction (Rafaeli & Sutton, 1990). This variable was measured such that 0 indicated the cashier was generally unpleasant during the transaction; 1 indicated that the cashier was at least somewhat pleasant.

Attentiveness measured the extent to which the cashier attended to the customer's needs. 0 was coded when the cashier only asked for the order, prepared it and accepted money without any other form of communication with the customer; 1 was coded when the cashier was attentive to customers' needs and/or answered customers' queries without being annoyed.

Independent variables

This study examined the following predictor variables. *Store busyness* ($\alpha = 0.83$) consisted of three items measured by the observer: the number of cash registers operating, the number of people in all lines, regardless of whether they were customers, and the number of people in the longest line. This scale was similar to that used by Rafaeli and Sutton (1990). Adapted from Rafaeli and Sutton's study of convenience store clerks, *customer demand* was operationalized as a single item capturing the extent to which customers placed task-related demands on the cashiers (e.g., change the order or additional requests). A change in order usually required amendments to the computerized register that demanded more effort from the cashiers. Three levels were coded: 0 for no demands, 1 for one demand, and 2 for two or more demands.

Personality of the cashier was measured using Eysenck's Personality Questionnaire Revised (EPQ-R). The scales were adapted such that the questions became phrases (e.g., 'Are you a talkative person' became 'I am a talkative person') and answers were on a 5-point Likert scale. A total of 12 phrases were used to measure each personality dimension. The psychoticism measure had a reliability of 0.59 and was comparable to Eysenck, Eysenck, and Barrett's (1985) results of 0.51 for females and 0.68 for males. The item 'I take much notice of what people think' was subsequently removed as its inter-item

[1]We followed the procedures adopted by Rafaeli and her colleagues. If a cashier smiles at any point in time, it is coded 1; if the cashier did not smile at all, it is coded 0. We had adopted Rafaeli's procedures to be consistent with the operationalization and the literature at large. We had considered coding the duration of the emotion, but given the length of service encounters we had decided otherwise.

correlation was negative. Reliability improved to 0.66. The extraversion and neuroticism scales both reported αs of 0.84.

Control variables

Several factors identified by Rafaeli and Sutton (1990) to potentially influence positive emotions at work were introduced as control variables: service employee talking to other people, presence of another service employee, gender of customer, and customer's social status. We operationalized these control variables following Rafaeli and Sutton (1990). For *service employee talking to other people*, no talking to another person was coded 0, while talking to other people was coded 1. *Presence of another service employee* was coded as 0 if there were no service employees working next to the observed service employee, 1 if there was one service employee, and 2 if there were service employees working on each side of the observed service employee. *Customer gender* was coded 1 for men and 2 for women. *Customer social status* was coded by three levels: 1 was assigned for low status with sloppy dressing, baggy t-shirts, shorts and jeans, 2 for medium status with casual dressing that is smart and tidy, and 3 for high status with formal dressing, including office wear, dressed with accessories such as ties, jewellery and scarves. *Time of day*, coded on a 24-hour clock, was controlled because it had been found that introverts perform better in the morning and extraverts in the evening (e.g., Eysenck, 1990). The *size of customer's purchase* was used as a proxy for length of transaction since longer transactions increased the chance that service employees displayed the behaviors coded as positive emotions. *Size of customer's purchase* was coded as 1 for small purchase (less than \$6 as each set meal cost slightly less than that), 2 for medium purchase (between \$6 and \$15, the equivalent of about two set meals), and 3 for large purchase (more than \$15). *Coder identifiers* were used to control for differences in coding effects, while *store identifiers* controlled for different store norms. Two dummy codes were included in the regressions for the observers as three observers were used in the study. Similarly, six dummy codes were included as seven stores were observed.

Results

Table 1 presents the means, standard deviations, and correlations of all the variables examined in this study. The reliability coefficients of all measures ranged from 0.62 to 0.84.

The hypotheses were tested using hierarchical multiple regression (Table 2). Model 1 examined the impact of control variables, while Model 2 added the effects of the situational variables identified by Rafaeli and Sutton. Model 3 added the personality factors identified by Eysenck and Model 4 added the interactions of situational and personality factors.

Model 1 showed that the control variables were significantly related to the general display of positive emotions ($R^2 = 0.32$, adjusted $R^2 = 0.28$, $F_{14,237} = 7.95$, $p < 0.001$). Model 2 ($F_{16,235} = 9.79$, $p < 0.001$) added the situational variables of store busyness and customer demand. The addition of these variables improved the fit of the overall model, increasing R^2 from 0.32 in Model 1 to 0.40 in this Model ($\Delta R^2 = 0.08$, $p < 0.001$), with adjusted R^2 of 0.36. Model 3 ($F_{19,232} = 10.35$, $p < 0.001$) added the dispositional variables into the regression equation. The change in R^2 compared to Model 2 was statistically significant ($\Delta R^2 = 0.06$, $p < 0.001$). That is, the inclusion of personality factors explained additional variance over and above the control variables and situational factors. The model's R^2 was 0.46 with adjusted R^2 of 0.41.

The situational and personality interactions were examined in Model 4 using moderated regression analysis. Model 4 examined the interaction effects of situational and personality variables. To reduce

Table 1. Descriptive statistics, correlations and internal reliabilities among study variables ($N = 252$)

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Service employee talking to other people	0.06	0.24	—											
2. Presence of another service employee	1.12	0.66	−0.02	—										
3. Customer gender	1.51	0.50	−0.09	−0.06	—									
4. Customer social status	1.60	0.49	−0.07	0.07	0.14*	—								
5. Time of day	1520.75	318.92	−0.01	0.09	0.09	0.01	—							
6. Size of customer's purchase	1.47	0.58	0.08	0.13*	0.00	0.18**	−0.03	—						
7. Store busyness	5.22	2.40	−0.002	0.56**	−0.01	0.08	0.29**	0.13*	(0.83)					
8. Customer demand	0.47	0.65	0.08	0.10	0.09	0.10	−0.001	0.43**	0.04	—				
9. Extraversion	3.51	0.59	0.09	−0.02	−0.12	0.05	−0.13*	0.05	−0.13*	0.06	(0.84)			
10. Neuroticism	2.80	0.61	−0.12	0.17**	0.11	0.04	0.19**	−0.01	0.21**	−0.02	−0.61**	(0.84)		
11. Psychoticism	2.20	0.37	−0.08	−0.01	0.04	0.10	0.22**	−0.03	0.17**	−0.11	−0.05	0.20**	(0.66)	
12. Display of positive emotions	2.71	1.45	0.18**	−0.03	−0.01	0.17**	−0.29**	0.30**	−0.13*	0.41**	0.36**	−0.35**	−0.23**	(0.62)

*$p < 0.05$; **$p < 0.01$ (2-tailed); internal reliabilities are in parentheses.

Table 2. Regression analyses ($N = 252$ interactions/transactions)

	Model 1 Standardized βs	Model 2 Standardized βs	Model 3 Standardized βs	Model 4 Standardized βs
Service employee talking to other people	0.14*	0.13*	0.11*	0.13*
Presence of another service employee	−0.01	−0.06	−0.10	−0.10
Customer gender	0.02	−0.02	0.01	0.01
Customer social status	0.14*	0.13**	0.13*	0.14*
Time of day	−0.34***	−0.33***	−0.21***	−0.30***
Size of customer's purchase	0.25**	0.11†	0.10†	0.08
Store 1	−0.31*	−0.30*	−0.19	−0.21†
Store 2	−0.17	−0.21*	−0.11	−0.09
Store 3	0.07	0.10	0.16	0.15
Store 4	−0.32*	−0.28*	−0.07	−0.09
Store 5	−0.001	−0.03	−0.03	−0.02
Store 6	−0.01	0.01	0.01	0.03
Coder 1	0.18*	0.17†	0.05	0.09
Coder 2	−0.07	−0.05	−0.08	−0.08
Store busyness		0.03	0.05	0.13
Customer demand		0.33**	0.31**	0.33***
Extraversion			0.21**	0.18**
Neuroticism			−0.08	−0.14†
Psychoticism			−0.10†	−0.08
Store busyness * Extraversion				−0.02
Store busyness * Neuroticism				−0.12†
Store busyness * Psychoticism				−0.14*
Customer demand * Extraversion				−0.02
Customer demand * Neuroticism				−0.05
Customer demand * Psychoticism				−0.04
R^2	0.32	0.40	0.46	0.49
Adjusted R^2	0.28	0.36	0.41	0.44
Change in R^2	—	0.08***	0.06***	0.03*
F (df1, df2)	7.95*** (14,237)	9.79*** (16,235)	10.35*** (19,232)	8.73*** (25,226)

$^{\dagger}p < 0.1$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

potential multicollinearity problems inherent in the use of multiplicative scores, we followed Aiken and West's (1991) recommendation of 'centering' the independent variables and the interactions before entering them into the regression equations.

In Model 4 ($F_{25,226} = 8.73$, $p < 0.001$), the inclusion of personality and situational interactions improved the percentage of variance explained over Model 3 marginally as the change in R^2 was statistically significant at $p < 0.05$ (for Model 4, $R^2 = 0.49$, adjusted $R^2 = 0.44$, $\Delta R^2 = 0.03$, $p < 0.05$).

With regard to the control variables, results in Model 4 indicated that service employees talking to other people ($\beta = 0.13$, $p < 0.05$) and customer social status ($\beta = 0.14$, $p < 0.01$) were positively related to the general display of positive emotions while the time of day was negatively related to the general display of positive emotions ($\beta = -0.30$, $p < 0.001$). There were no coder effects; there was a store effect where store 1 ($\beta = -0.21$, $p < 0.10$) was negatively related to the general display of positive emotions.

In testing the hypotheses with Model 4, we found that there was no support for Hypothesis 1 as store busyness ($\beta = 0.13$, n.s.) was not related to the general display of positive emotions. Customer demand ($\beta = 0.33$, $p < 0.001$) was positively related to the general display of positive emotions. Thus,

Hypothesis 2 was supported. Among the dispositional variables, Hypothesis 3, which stated that service employees with high extraversion traits would display more positive emotions than service employees with low extraversion traits ($\beta = 0.18$, $p < 0.05$), was supported. There was partial support for Hypothesis 4 as neuroticism was marginally related to the general display of positive emotions ($\beta = -0.14$, $p < 0.10$). There was no support for Hypothesis 5 as psychoticism was not related to the general display of positive emotions ($\beta = -0.08$, n.s.).

Hypothesis 6a was not supported as the interaction effect of store busyness with extraversion was not statistically significant. The standardized β coefficient for the interaction of store busyness and neuroticism was -0.12 ($p < 0.10$). This partially supported Hypothesis 6b that the negative relationship between store busyness and the general display of positive emotions will be stronger when employees are higher in the neuroticism trait. The interaction between store busyness and psychoticism was -0.14 ($p < 0.05$). This was consistent with Hypothesis 6c that the negative relationship between store busyness and the general display of positive emotions will be stronger when employees are higher in the psychoticism trait.

No statistically significant interactions between customer demand and personality traits were found. Hence Hypotheses 7a, 7b, and 7c were not supported.

A usefulness analysis was also conducted (see Table 3). We found that the situation variables of store busyness and customer demand explained an additional 7.4 per cent of the variance over and above that of the personality variables of extraversion, neuroticism and psychoticism, while personality was able to explain an additional variance of 5.9 per cent over and above that of situation. The relative effects of personality appeared to be slightly less powerful than the effects of the situation.

To alleviate concerns of the observations of multiple customers on one service employee, we created a new dataset with 42 data points, where each service employee was only reported once by averaging the level of store busyness and customer demand for each service employee. We then ran hierarchical regressions to test the effects of situational and personality measures on the displays of positive emotions. Due to the small sample size, the control variables were not included in the regressions. The results were consistent with the original dataset with 252 observations where the situational and personality factors each explained significant variance in the displays of positive emotions (Adjusted $R^2 = 40$ per cent) (see Table 4). However, the interaction effects were not significant.

Table 3. Alternative hierarchical regressions of situational and personality variables on the display of positive emotions (usefulness analysis)

Regressions and standardized βs		Display of positive emotions $N = 252$
I	Controls	
	R^2	0.32
II	Personality first, then situation	
	Step 1: Extraversion, neuroticism and psychoticism	
	R^2	0.39
	Step 2: Customer demand and store busyness	
	R^2	0.46
	Situation beyond personality	0.074**
III	Situation first, then personality	
	Step 1: Customer demand and store busyness	
	R^2	0.40
	Step 2: Extraversion, neuroticism and psychoticism	
	R^2	0.46
	Personality beyond situation	0.059**

*$p < 0.05$; **$p < 0.01$.

Table 4. Regression analyses ($N = 42$ service employees)

	Model 1 Standardized βs	Model 2 Standardized βs	Model 3 Standardized βs	Model 4 Standardized βs
Store busyness	0.26†		−0.11	−0.09
Customer demand	0.53**		0.42**	0.49**
Extraversion		0.36*	0.26*	0.21
Neuroticism		−0.21	−0.26	−0.30
Psychoticism		−0.25*	−0.13	−0.12
Store busyness * Extraversion				−0.05
Store busyness * Neuroticism				−0.11
Store busyness * Psychoticism				−0.14
Customer demand * Extraversion				0.10
Customer demand * Neuroticism				−0.05
Customer demand * Psychoticism				0.07
R^2	0.29	0.36	0.51	0.56
Adjusted R^2	0.25	0.31	0.44	0.40
Change in R^2	—	—	—	0.05 (n.s.)
F (df1, df2)	7.79** (2, 39)	2.24 (9, 32)	7.48** (5, 36)	3.45** (11, 30)

$^{\dagger}p < 0.1$; *$p < 0.05$; **$p < 0.01$, ***$p < 0.001$.

In addition, we ran several interactions for between within-subjects factors and between-subjects factors by collapsing the data into fewer categories. We used the median split for the situation and personality variables because of the small sample size of only 42 service employees. First, we ran five one-way ANOVAs to test the effects of extroversion, neuroticism, psychoticism, store busyness and customer demand on displayed positive emotions. We found that extroversion and customer demand were positively related to displayed positive emotion while neuroticism and psychoticism were negatively related to displayed positive emotions. Following these analyses, we also conducted a series of six repeated-measures analyses with interactions between within-subjects factors (store busyness and customer demand) and between-subjects factors (extraversion, neuroticism, and psychoticism). The results showed that none of the interactions were significant.

The results of both sets of additional analyses were consistent with the first set of analyses. That is, situational factors as a group and personality factors as a group are related to the display of positive emotions. However, the results do not support the assertion of interaction effects between situational and personality factors. Thus, we are confident that, despite observing multiple customers for each service employee, the data are robust for the effects of situational and personality factors on the displays of positive emotions. However, the results are less consistent for the interaction effects.

Discussion and Conclusion

The study expanded the work of Rafaeli and Sutton (e.g., 1990) by showing the importance of situational and dispositional factors in the display of positive emotions in another context: Singapore. The usefulness analysis shows that each factor contributes significantly to explaining the level of positive emotions displayed by employees. In addition, interactive effects of situational and dispositional factors on work performance were examined. We found that store busyness was not related to displayed emotions but that customer demand and extraversion were positively related to the display of positive emotions, while neuroticism was marginally negatively related to the display of positive emotions. Of

the interactions tested, neuroticism and psychoticism were moderately related to a greater decrease in displayed emotions during busy work situations. In the current model, up to 40 per cent of the variance in the displayed emotion using both individual level and aggregated measures were found. Independent sources of field data, a different cultural setting, and the addition of personality as a set of variables that can explain the displays of positive emotions by employees provide theoretical and applied importance.

Store busyness and the display of positive emotions

In contrast to Rafaeli and Sutton's (1990) study, there was no evidence to show that service employees are less likely to display positive emotions in busy times than in slow times. Rafaeli and Sutton (1990) proposed that store pace is a cue that determines which norms apply at a particular time. This lack of effect of store busyness may be because of the heavy loads employees handle in Singapore.

Culture, at the national and organizational levels, might possibly be another reason why store busyness did not predict the level of displayed emotions in Singapore. According to Schwartz (1992), individuals have different values that guide one's life. Those high on conformity are less likely to violate social expectation and behave consistent with norms (Schwartz, 1992). The manuals in a fast-food restaurant state how employees should behave in general. Singapore is a culture known to value conformity; conceivably Singapore employees are more likely than their counterparts in Israel and in the United States to follow norms instead of adapting behaviors to different levels of store busyness. The limited variance in the level of eye contact in Singapore could also be explained by high conformity among Singapore employees. In the present study, the mean level of eye contact was 0.93, which means that eye contact was established between the service employee and the customer for almost all the transactions (18 instances out of 252 transactions). On the other hand, Rafaeli and Sutton's (1990) study dropped the greeting factor from their scale of displayed emotions as this behavior did not occur in 99.5 per cent of the observations. In the present study, service employees in Singapore greeted customers in 68.7 per cent of the observations. Possibly, Singapore employees are more likely to follow organizational sanctioned ways of behavior.

Organizational culture is another explanation for the differences in findings between this study and that of Rafaeli and Sutton (1990). Organizational culture affects how employees behave, including the way employees dress to work and how they arrange the physical work space (Martin, 1992). The context of this study, a fast-food chain, is one where behavior norms are clearly spelt out. In our interviews with the managers at the fast-food chain, we found that efficiency was emphasized over friendliness. Employees were encouraged to use the same routine of greeting, keeping eye contact while taking orders and thanking the customer at the end of the transaction. A greeting signaled to the next customer that he or she was now being served and prompted the person to make the order. Keeping good eye contact while taking orders increased the chances that the order was taken correctly and reduced mistakes that might prolong the transaction. Finally, thanking the customer signaled the end of the transaction and again prompted the customer to make way for the next. In this context, store pace was not a transaction defining cue as proposed by Rafaeli and Sutton (1990).

Customer demand and the display of positive emotions

The results showed that service employees displayed more positive emotions when customers were demanding. This supported the assertion that employees use positive emotions to gain control over demanding customers (Rafaeli & Sutton, 1990). In a fast-food restaurant where efficiency is a

key attribute, demanding customers prolong the service process and irritate other customers in the queue. Faced with a demanding customer, a service employee can shorten the transaction time by being more attentive, maintaining better eye contact, and repeating the order. On the other hand, another explanation for the same finding could be that demanding customers are actually controlling the service employee to display organizationally prescribed emotions, a social influence dynamic. Future research could try to tease apart these competing explanations.

Personality and the display of positive emotions

The study found that extraverted employees displayed emotions that were more positive, while employees high in neuroticism displayed less of these emotions. These findings were expected because individuals high in extraversion are more likely to be friendly, while individuals high in neuroticism are more likely to be depressed and tense. However, psychoticism was not related to the display of positive emotions. This is likely because the psychoticism scale is not univocal and has been found to measure a wide variety of constructs, such as impulsiveness, lack of cooperation, low social sensitivity, low persistence, and lack of anxiety (Howarth, 1986). These different behaviors could have created some diffusion in its impact on the display of positive emotions.

We found two small but significant interactions, typical of studies examining interaction effects (Chaplin, 1997). We found that during busy store periods, employees who were high in neuroticism were more likely to display less positive emotions than employees low in this dimension. We also found similar interactions between psychoticism and busy store periods. Possibly, these employees were less able to handle stressful situations. There were no significant interactions of busy periods and demanding customers with extraversion. Individuals high on extraversion traits are sensation-seeking and venturesome; instead of finding busy stores to be challenging they may find it to be dull as the emphasis is on processing quickly with little time for social interaction. Miller and Furnham (1998) suggested that extraverts are easily bored and found that these individuals are frequently absent from work.

Situation and personality

An additional insight from this study is that the relative effects of personality over the situation are almost as strong as that of the situation over personality. There are implications for management as they show that the selection of employees is as important as the situation. Employers have more control over the selection process than the situational aspects. In addition, an organization is a function of the people it contains, and hence selection plays a paramount role in setting and reinforcing the overall organizational climate and culture (Schneider, 1987). The results of the present study suggest that dispositional factors can predict both the display of positive emotions and the situational variables. It may perhaps be profitable for organizations to select employees higher in extraversion for manning the front line, as is in the present study's context of customer service employees. Further, we also found that employees high in neuroticism and psychoticism make less ideal service employees when placed under busy situations.

Limitations and future research

There are some limitations that should be considered in interpreting the findings in this study as well as avenues for future research. Although coding effects were controlled for in this study, the three observers had observed different service employees. Therefore, we could not establish inter-rater agreements.

Also, it might also not be possible to generalize this set of findings to service professions that require long and intense interactions. In a service encounter such as the current fast-food context, the transaction between an employee and the customer is fairly short. However, in a service relationship, the interactions are longer and they expect to interact in the future (Gutek, 1995). Hence, in service relationships, the effects of personality on displayed emotions might be stronger because it is difficult for the service employee to hide his or her real feelings. However, an alternative hypothesis is that, in this context, the likelihood of future interactions gives the service employee an added incentive to control one's real feelings in order to attract future sales. In such a service relationship, therefore, other factors may be required in one's display of positive emotions, such as perceived genuineness of service employee.

Since the purpose of the study was to explore whether employee characteristics also affected displayed positive emotions, we felt that it was important to use an established scale to measure displayed emotions. However, the scale appears to be less than ideal in understanding the display of positive emotions in another culture. Cronbach's alpha for the display of positive emotions was low. One possible reason could be that only six items were used in the measure and the low reliability could be a function of the small number of items. In addition, the measurement of two items in the scale—pleasantness and attentiveness—may not be as clear. It is plausible that observers were able to observe only 'neutral' emotions given the 'script' that the service employees adhere to. For future studies, other indicators of attentiveness could include proactive actions by employees such as asking customers whether they wanted items like napkins and ketchup. These indicators show the ability of the employees to deviate from the script and react to the unique needs of each customer. Other measures of pleasantness could include body language such as open hand gestures and nodding the head when filling the customer's order.

However, while caution should be exercised when interpreting the results due to the low alpha, Pedhazur and Schmelkin (1991) asserted that 'One downside of a low reliability estimate is that the unreliability of the measure of one or both variables lead to a downward bias, or an attenuation, of the correlation coefficient between variables. Hence, the lower the reliabilities, the lower the estimate of the true correlation between the variables will be, and thus, the more difficult it would be to find significant correlations.' Therefore, given the significant correlations found in this study, we are confident that the low alphas are not a threat to the results found.

While the low alpha for the display of positive emotions is a limitation, it is also an area for future work as one could further build upon the scales used by Sutton and Rafaeli (1988) by using expression of displayed positive emotions more suitable for the context. For example, in Singapore informal conversations between service employee and customer might be one factor that can be used to index the amount of positive emotions displayed. This is because, while informal conversations between service employees and customers are quite common in North America, it is less common in Singapore and in some other parts of Asia.

Another limitation of the study is that interaction effects were not significant when we aggregated the data where each data point represented the interactions of customers with one service employee. There could be at least two reasons for this: the small sample size of 42 and the correlations among the interaction effects and the main effects (although we reduced multicollinearity by centering the data). Nonetheless, the personality and contextual factors continued to be related to the displays of positive emotions. Future work can observe each service employee only once, so that there is no need to aggregate to the individual level. That is, the results need to be further replicated in a larger sample of cashiers.

Another area of future research is to understand the service encounter from the customer's point of view. Other than Pugh (2001) and Tsai (2001), other studies in this area have focused only on the reactions of the employee.

In sum, the present study shows that both the situation and the employee matter; how the situation and employee characteristics interact with each another could also matter. Service organizations, when

designing their service manuals and procedures, need to recognize the extent to which emotion work can be managed. Organizations need to identify personality and job dimensions that predict organizationally desired emotions. With this knowledge, organizations can be better equipped to select and deploy employees whose displayed emotions are aligned with organizational norms.

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