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Introduction

The face is believed to be the primary non-verbal channel for the communication of emotions (Small and Verrochi, 2009), with smiling being the most direct sign of positive emotions (Ekman, 1992). Smiling is a universal display (Darwin, 1872/1965; Ekman and Friesen, 1969; Lau, 1982) and is cross-culturally understood as a sign of happiness and joy (Ekman, 1992). Therefore, there is a very strong agreement (typically above 90 percent) between people from Western and Eastern cultures, independent of their age and gender, in determining whether an individual is happy or not, solely by looking at the individual’s face (e.g., Ekman and Friesen, 1971; Ekman et al., 1987). Research also shows that all positive emotions share one single facial expression: a particular type of smile (Ekman, 1993). Thus, unlike many other expressions, smiling represents one of our few basic emotions (Ekman, 1992) and is collectively understood as a sign of friendliness, generosity, and other altruistic behaviors (Brown et al., 2003; Gabriel et al., 2015; Grandey and Gabriel, 2015; Lau, 1982; Mehu et al., 2008).

Applied to a consumer context, many retail and service settings explicitly require their employees to offer “service with a smile” (Barger and Grandey, 2006; Beal et al., 2006; Grandey and Gabriel, 2015) and customers associate such behavior with high-quality service (Rafaeli and Sutton, 1987). In their conceptual framework of emotions as part of the work role, Rafaeli and Sutton (1987) argued that positive employee-displayed emotions should result in three different classes of positive outcomes from the organization’s perspective: immediate gains (short-term effects such as sales), encore gains (long-term effects such as store loyalty), and contagion gains (long-term effects such as positive word-of-mouth). In support of these claims, positive employee-displayed emotions and behaviors (such as
smiling, greeting, expressing gratitude, and establishing eye contact with customers) increase customers’ positive affect (Pugh, 2001; Trougakos \textit{et al.}, 2011), time spent in the store (Tsai and Huang, 2002), and actual consumption or tipping behavior (Otterbring \textit{et al.}, 2013a; Tidd and Lockard, 1978). Furthermore, positive employee-displayed emotions and behaviors increase customers’ willingness to return to a store, positive word-of-mouth, and future purchase intentions (Tsai, 2001; Tsai and Huang, 2002). Employees who manage to transfer positive emotions to customers positively influence customer satisfaction and future loyalty intentions (Hennig-Thurau \textit{et al.}, 2006).

Despite these established positive effects on the above key customer outcomes, only one field study (Barger and Grandey, 2006) seems to have investigated the unique association between employee-displayed smiling and customer affect and satisfaction, respectively. Most previous related studies in field settings (e.g., Gabriel \textit{et al.}, 2015; Keh \textit{et al.}, 2013; Kim and Yoon, 2012; Pugh, 2001; Rafaeli, 1989; Sutton and Rafaeli, 1988; Tsai and Huang, 2002) have used a combined measure of employee-displayed positive emotions and behaviors (including, but not restricted to, smiling). This measure has then been used to investigate the impact of such behaviors and emotions on customer affect and satisfaction. However, the nature of this measure makes it impossible to ascertain that the isolated effect of employee-displayed smiling has had any impact on these variables.

In addition, existing research into the effect that employee-displayed smiling has on customer affect and satisfaction is inconsistent. Some studies have found that customers’ positive affect and satisfaction are both positively associated with employee-displayed smiling (e.g., Söderlund and Rosengren, 2008). Other studies have found that employee-displayed smiling is positively related to customer satisfaction, but not to customers’ positive affect (e.g., Barger and Grandey, 2006). Yet other studies have shown that the extent of employee-displayed smiling does not influence any of these variables (e.g., Hennig-Thurau \textit{et al.}...
al., 2006). These inconsistent results could be due to the different affect measures used. Whereas some studies (e.g., Pugh, 2001; Hennig-Thurau et al., 2006) have relied on positive affect measures that almost exclusively relate to arousal-linked emotional states (such as excited, enthusiastic, and active), other studies (e.g., Musgrove, 2011; Söderlund and Rosengren, 2008) have relied on positive affect measures that completely relate to pleasure-linked emotional states (such as pleased, joyful, and happy). Yet other studies (e.g., Barger and Grandey, 2006; Kim and Yoon, 2012; Small and Verrochi, 2009; Tsai and Huang, 2002) have mixed pleasure and arousal-linked measures and collapsed the responses into a single broad index of positive affect. Thus, despite the argument raised by several scholars that certain positive emotions differ in their physiology, evolutionary history, and effects on judgment and choice, many researchers tend to disregard the psychometrically validated differences of these emotions and refer to them simply as positive affect (Berg et al., 2015). Table 1 summarizes the studies that most closely relate to the present research.

Insert Table 1 about here

Furthermore, few if any studies have used experimental design in actual field settings to address the association between employee-displayed smiling and customers’ emotional reactions. This means that the theory of emotional contagion (that is, the affective process in which an individual mimic and converges to another person’s emotions and expressions; Hatfield et al., 1994) has never been explicitly tested as the underlying mechanism of why a smiling employee would increase customers’ positive affect. As Pugh (2001) noted, “in the absence of a true experimental design it is not possible to conclude that emotional contagion alone is responsible for this association” (p. 1026).
Using a quasi-experimental design, the main objective of the present field study was to examine whether a smiling (versus non-smiling) employee positively influences customer satisfaction and, if so, whether any of the affective states of pleasure, arousal, and dominance would mediate this effect. In so doing, this study addresses the recent call for research investigating the impact of employee-displayed smiling on customer affect and satisfaction under ecologically valid conditions (e.g., Bujisic et al., 2014). As far as can be ascertained, this study is the first to show direct experimental evidence for a smiling-induced emotional contagion effect in real-world settings. It therefore makes a significant contribution to emotional contagion theory, as well as other affect-based theories in psychology, marketing, and service research. Apart from experimentally demonstrating that pleasure is the main driver for the effect of employee-displayed smiling on customer satisfaction, the present research contributes to the literature by showing, for the first time, that customers’ feelings of dominance act as an additional mediator for the smiling–satisfaction link. Lastly, given that examining the relationship between service and well-being was recently viewed as the top priority in a large interdisciplinary study (Ostrom et al., 2015), the well-being-related outcomes of the present study contribute to the growing stream of transformative service research.

**Theoretical framework**

*Emotional contagion theory*

Emotional contagion is the affective process by which individuals converge to others’ emotions and expressions (Hatfield et al., 1994). Individuals tend to subconsciously mimic or “catch” the facial expressions and emotional displays shown by the people with whom they interact. This act of imitation, which is sometimes called the chameleon effect (Chartrand and Bargh, 1995), leads people to become emotionally influenced in a way that is feeling-
congruent with the emotions and expressions they have just mimicked (De Gelder, 2006; Moody et al., 2007; Small and Verrochi, 2009). For instance, Strack et al. (1988) found that participants rated cartoons as significantly funnier after holding a pencil in their mouths in a way that resembled, rather than prevented, a smile (that is, between the front teeth). Theories on embodied cognition have also suggested that the perception of emotional meaning (for instance, recognizing the emotion associated with a particular facial expression) includes the embodiment of the emotion itself (Niedelthal, 2007). Research in neuroscience has even indicated that the human brain contains “mirror neurons” for the motor and emotional components of facial expressions that could explain why the brain regions that are activated when passively viewing others’ actions (such as observing another person’s smile) are the same as those that are involved when individuals execute these same actions themselves (Mukamel et al., 2010; Rizzolatti et al., 2006; Van der Gaag et al., 2007).

Emotional contagion is said to be most influential in the early stages of a service encounter (Hennig-Thurau et al., 2006); for example, the point at which a smiling employee greets a customer as he or she enters the store. Therefore, it is likely that the customer, through facial mimicry effects, will experience more positive emotions in the presence of a smiling (versus non-smiling) employee. In other words, if the employee appears to be happy, the customer should also become happy (Musgrove, 2011). This is reasonable since positive displays have been shown to transfer positive emotions more than neutral displays (Berg et al., 2015; Kim and Yoon, 2012; Trougakos et al., 2011). Thus, whereas emotional contagion theory postulates that a smiling employee will transfer more positive emotions to customers, the same theory also predicts that a non-smiling employee should generate less positive emotions in customers, either because the employee’s neutral facial expression transfers cues of neutrality (such as being unemotional) or because it does not convey any emotions at all (Trougakos et al., 2011).
Positive emotions, such as those that are transferred when viewing an interaction partner’s smile, tend to influence individuals’ subsequent judgments in a way that resembles these emotions. This applies not only to judgments related to the source that initially generated the emotions (for example, the interaction partner), but also to unrelated objects and phenomena (Grandey and Gabriel, 2015; Trougakos et al., 2011).

**Feelings-as-information theory**

In their seminal article on mood, misattribution, and well-being, Schwarz and Clore (1983) found that global judgments of happiness and satisfaction are influenced by mood at the time of judgment. Their two experiments showed that global judgments of happiness and satisfaction increased when participants were in a good mood rather than a bad mood. In fact, merely interviewing participants on a sunny (versus rainy) day was sufficient for these effects to occur. Schwarz and Clore (1983) concluded that “people use their momentary affective states as information in making judgments of how happy and satisfied they are” (p. 513). Therefore, evaluative judgments implicitly make people ask themselves, “How do I feel about this?” (Schwarz, 2000). Thus, people’s current affective state often guides their response to the object of judgment, resulting in more positive evaluations when they are in a happy mood than a sad mood (Schwarz, 1990; 2011; Schwarz and Clore, 2003).

If customers are greeted by a smiling (versus non-smiling) employee, emotional contagion theory suggests an increase in customers’ positive emotions. As a direct consequence of this change in affect, feelings-as-information theory predicts that these customers should be more satisfied. However, some affective states are more strongly associated with positive emotions than others, which means they should be better predictors of customers’ emotional reactions and subsequent satisfaction judgments after a greeting by a smiling employee.
The stimulus-organism-response (S-O-R) model

Mehrabian and Russell’s (1974) S-O-R model identifies three general affective dimensions – pleasure, arousal, and dominance – that summarize people’s emotional reactions to environmental stimuli. These dimensions are conceptually similar to the dimensions of evaluation, activity, and potency proposed by Osgood (1957), and describe virtually all emotional reactions to an environment and the stimuli located within it (Mehrabian, 1976). Pleasure describes the extent to which an individual feels pleased, joyful, and happy; arousal corresponds to feelings of excitement, stimulation, and activity; and dominance represents whether the individual feels influential, in control of, and free to act in a given situation (Donovan and Rossiter, 1982; Mehrabian and Russell, 1974; Musgrove, 2011; Russell and Mehrabian, 1978).

Whereas pleasure and arousal have received a great deal of scholarly attention, dominance has typically been downplayed (Bakker et al., 2014), especially in retail and service research (Yani-de-Soriano and Foxall, 2006). In fact, several studies have overlooked this affective dimension entirely (e.g., Chebat and Michon, 2003; Donovan et al., 1994; Mattila and Wirtz, 2001; 2006; Sherman et al., 1997; Wirtz et al., 2000), often without justification (cf. Yani-de-Soriano and Foxall, 2006). This is problematic, as a critical review by Yani-de-Soriano and Foxall (2006) showed that dominance was as legitimate as pleasure and arousal for explaining individuals’ emotional reactions toward various environmental stimuli. Those authors warned of the negative consequences of ignoring this distinct affective dimension in retail and service research.

According to the S-O-R model, pleasure, arousal, and dominance should, to various degrees, mediate the effect of environmental stimuli (for example, a smiling employee) on individuals’ behavioral responses, and should therefore result in either approach or avoidance behaviors. Although these responses are referred to as behaviors, approach-avoidance
behaviors also include (un-) favorable attitudes, (dis-) liking, and (dis-) satisfaction (Mehrabian and Russell, 1974).

A smiling employee should primarily influence the affective state that most typically resembles a smile in the customer (emotional contagion theory). Therefore, pleasure should be a better predictor of customers’ subsequent satisfaction judgments than other affective dimensions that are less characteristic of a smile (feelings-as-information theory). Figure 1 provides a graphical representation of the conceptual model that corresponds to the current research.

Hypothesis development

A few studies (Hennig-Thurau et al., 2006; Shaw Brown and Sulzer-Azaroff, 1994) have failed to establish a relationship between employee-displayed smiling and customer satisfaction. However, there is both direct (Söderlund and Rosengren, 2008) and indirect evidence (Barger and Grandey, 2006; Gabriel et al., 2015; Keh et al., 2013; Musgrove, 2011; Trougakos et al., 2011; Tsai and Huang, 2002) that employee-displayed smiling should positively influence customers’ levels of satisfaction. A non-experimental field study by Barger and Grandey (2006) found that employee-displayed smiling (both in isolation and together with other positive employee-displayed behaviors) was positively associated with customers’ encounter satisfaction in food and coffee services. A more recent field study by Gabriel et al. (2015) found that a combined index of employee positive emotional displays (including smiling) was positively related to customers’ encounter satisfaction and to their ratings of employee friendliness in counter-only stores such as coffee and sandwich shops. Using a similar index of employee-displayed positive emotions, Keh et al. (2013) found that
the extent to which employees displayed such positive emotions was positively associated with customer satisfaction, both in a scenario-based experiment on university students and in a subsequent field study on grocery shoppers. Mirroring these findings, Söderlund and Rosengren (2008) found that service workers’ smiles had a significant positive effect on customer satisfaction in a scenario-based experiment with pictures of smiling (versus non-smiling) service workers at a travel agency. A bit later, Trougakos et al. (2011) conducted an experimental study in which undergraduate business students were trained to act as poll workers and survey other students about one of two campus organizations. The poll workers in one condition were instructed to act positively, whereas those in the other condition were instructed to act as neutral as possible. Respondents surveyed by the positive poll workers reported more favorable attitudes toward the campus organization, and this was partly measured by their overall satisfaction. Based on these studies, the author hypothesizes:

**H1:** Employee-displayed smiling positively influences customer satisfaction.

Most of the reviewed literature (e.g., Berg et al., 2015; Gabriel et al., 2015; Kulczynski et al., 2016; Musgrove, 2011; Small and Verrochi, 2009; Sönderlund and Rosengren, 2008; Trougakos et al., 2011; Tsai and Huang, 2002) has also suggested a link between employee-displayed smiling (either in isolation or together with other positive employee-displayed behaviors) and customers’ positive affect – at least when the affect measures used relate to the pleasure dimension in the S-O-R model. Moreover, extant research has documented a positive relation between employee-displayed smiling and customers’ smile strength (Barger and Grandey, 2006), as well as between customers’ emotional displays during a service encounter and their subsequent levels of pleasurable feelings (Kim and Yoon, 2012; Mattila and Enz,
Therefore, with emotional contagion as the underlying mechanism motivating these findings, the author hypothesizes:

**H2a:** Employee-displayed smiling positively influences customers’ levels of pleasure.

There is weaker support for the relationship between employee-displayed smiling and customers’ levels of arousal. Barger and Grandey (2006) and Hennig-Thurau et al. (2006) both used a positive affect index comprising one or many arousal-related items, but neither study found that employee-displayed smile strength had an effect on customers’ positive affect. Similarly, Small and Verrochi (2009) used a happiness index containing two arousal items (excited, enthusiastic) and one pleasure item (happy) to measure participants’ affect when viewing pictures of either sad (such as frowning or crying) or happy (smiling) children. When they compared participants’ affect using this overall happiness index, they did not find a significant difference between the happy and the sad condition. However, a separate analysis on the happy item revealed a statistically significant difference between conditions, indicating that ratings on the arousal-related items did not differ between the happy and the sad condition.

A non-experimental field study by Pugh (2001) in the same retail/service context as in the present research (a retail bank) found that employee-displayed positive behaviors were positively associated with arousal-based items (for example, active, excited, enthusiastic, and peppy). However, Pugh (2001) did not manipulate the facial expression of an employee (smiling versus non-smiling), but instead measured employee-displayed positive behaviors by averaging the extent to which different bank tellers were greeting, smiling, thanking, and establishing eye contact with customers. Therefore, it is not possible to conclude that the isolated impact of employee-displayed smiling had any impact on arousal. Hence, given the
lack of direct support for the claim that employee-displayed smiling should increase customers’ feelings of arousal, the author hypothesizes:

**H2b:** Employee-displayed smiling does not influence customers’ levels of arousal.

Recently, scholars have called for research into the effects that smiling may have on individuals’ perceptions and feelings of dominance (e.g., Kim and Yoon, 2012). To date, only one study (Musgrove, 2011) has examined the impact that employee-displayed smiling has on customers’ levels of dominance, and it did not find any effect. However, research from other fields indicates that there may be a link between the presence (versus absence) of a smile and perceivers’ feelings of dominance. Specifically, a large body of research has shown that a neutral facial expression is a non-verbal marker of status and dominance, whereas smiling signals submissiveness and subordinate status (e.g., Deutsch, 1990; Kraus and Chen, 2013; Keating *et al.*, 1977; 1981). These findings suggest that customers should feel more dominant if they are greeted by a smiling employee, given that smiling has been shown to act as a submissiveness signal. On the other hand, customers should feel less dominant if they are greeted by a non-smiling employee, because a neutral facial expression signals dominance. Accordingly, the author hypothesizes:

**H2c:** Employee-displayed smiling positively influences customers’ levels of dominance.

If customers are greeted by a smiling (versus non-smiling) employee, emotional contagion theory postulates an increase in customer positive affect – especially concerning the emotional state of pleasure, which is most strongly associated with feelings of happiness and joy. As a direct result of this hypothesized affect change, feelings-as-information theory
predicts an increase in customer satisfaction. Supporting this notion, scenario-based research suggests that pleasure should mediate the effect of employee-displayed smiling on customer satisfaction (Musgrove, 2011; Söderlund and Rosengren, 2008). Although no field studies have explicitly addressed this issue using experimental design, there is indirect evidence for such a process explanation (e.g., Keh et al., 2013; Matila and Enz, 2002; Trougakos et al., 2011; Tsai and Huang, 2002).

Although Barger and Grandey (2006) found no support for the hypothesis that employee-displayed smiling should positively influence customers’ positive affect, they did demonstrate that the isolated effect of an employee’s smile strength and the combined effect of the employee smiling and displaying other positive behaviors were both positively associated with customers’ smile strength and encounter satisfaction. However, the positive affect index that they used was a combination of both pleasure-related (pleased, contended) and arousal-related items (excited). As such, despite Barger and Grandey’s (2006) claim that their study is “the first known study to examine whether mimicry occurs in a service context and whether it explains why service with a smile predicts customer mood” (p. 1231), the validity of their positive affect index can questioned because it taps two distinct affective dimensions in the S-O-R model. Therefore, given that most studies have suggested that pleasure should mediate the effect of employee-displayed smiling on customer satisfaction, and that such a relationship would be justified by emotional contagion and feelings-as-information theory, the author hypothesizes:

**H3a:** Pleasure mediates the effect of employee-displayed smiling on customer satisfaction.

Just as the effect of employee-displayed smiling seems to be less evident for arousal than for pleasure, the mediating influence of arousal on customer satisfaction is likely to be
weaker than the effect of pleasure. The author bases this reasoning on the fact that pleasure more directly taps feelings of happiness and joy, which are the typical feelings involved when smiling. Thus, customers’ levels of pleasure should be more strongly influenced by the employee’s smile through the facial mimicry effects explained by emotional contagion theory. Therefore, pleasure should be a stronger predictor of subsequent feeling-congruent satisfaction judgments, in line with feelings-as-information theory. Although arousal can be experienced as a positive affective state, feelings of arousal are less characteristic for smiling. Hence, arousal should have a weaker overall impact on customer satisfaction. In fact, neither of the two smiling studies in which positive affect was measured partially (Barger and Grandey, 2006) or mainly (Hennig-Thurau et al., 2006) with arousal-related items found any mediating influence of positive affect on customers’ levels of satisfaction. Accordingly, the author hypothesizes:

H3b: Arousal does not mediate the effect of employee-displayed smiling on customer satisfaction.

Given the presumed increase in customers’ levels of dominance in the presence of a smiling (versus non-smiling) employee, and research demonstrating that feelings associated with dominance (such as sense of control) have a positive impact on well-being outcomes (De Lange et al., 2003; Langer and Rodin, 1976; Rodin and Langer, 1977; 1980; Seligman, 1975), the author predicts that customers’ levels of dominance should mediate the effect of employee-displayed smiling on customer satisfaction. However, given that feelings of dominance are less characteristic of a smile than feelings associated with pleasure, dominance should have a weaker influence on customers’ subsequent satisfaction judgments compared to pleasure. Therefore, the more formal hypothesis is as follows:
**H3c**: Dominance mediates the effect of employee-displayed smiling on customer satisfaction, but is a weaker predictor of customers’ levels of satisfaction compared to pleasure.

**Methodology**

*Participants*

A total of 210 customers (48 percent male; $M_{age} = 49.91; SD = 20.09$) participated in the study, which was conducted at a large Scandinavian retail bank. Participants with $z$-scores exceeding an absolute value of three standard deviations from the mean on the main dependent variables ($n = 8$) were treated as outliers, and were therefore removed from the analyses (cf. Hansen et al., 2013; Otterbring, 2016). The bank branch is one of the largest in Scandinavia, with an annual turnover of more than €40 billion, approximately 8 million private clients and 600,000 business clients, 500 bank offices, and 15,000 employees.

*Design, procedure, and measures*

The study used a quasi-experimental two-group factorial design, with employee condition (smiling, non-smiling) as the between-subjects factor [1]. Data collection took place during four consecutive weekdays (Monday–Thursday), with the order of conditions counterbalanced. Upon arrival at the bank, customers in the smiling employee condition were greeted at the entrance by a male bank teller who said, “Hello, welcome to [name of the bank]!” while smiling and looking into the eyes of the customers. The bank teller then briefly explained how the bank’s queue system worked, after which the customers entered the bank to do what they came to do. Customers in the non-smiling employee condition were greeted in the same way, by the same bank teller, but the teller had a neutral facial expression. Each service encounter lasted for approximately 15–30 seconds. Because the teller usually had the
primary responsibility for greeting customers upon entry to the bank office, and based on his knowledge and expertise of the particular bank setting, as well as his ability to properly address brief questions from incoming customers, he was considered the best candidate for inclusion in the field study.

Prior to the study, the bank teller was trained for several hours to behave in accordance with the experimental conditions being manipulated. This was deemed important because it can take an effort to consciously prevent a smile if the initial facial impression from an approaching customer resembles a smile. At the actual execution of the study, a research assistant observed the teller’s facial expression during each service encounter to ensure that his facial expression was consistent with the experimental condition, which was found to be the case.

Before customers left the bank, the research assistant asked them to fill out a paper-and-pencil survey that included demographic information, items linked to the affective dimensions in the S-O-R model, and measures of customer satisfaction. Pleasure, arousal, and dominance were measured with semantic differentials from Mehrabian and Russell (1974). Items were rated on a nine-point scale ranging from -4 to 4, with the endpoints representing opposite emotions, and were averaged to form three composite indexes; one for each affective state. The pleasure index (α = .93) comprised five pairs of opposites (for example, unhappy–happy, not joyful–joyful); the arousal index (α = .87) comprised four pairs of opposites (for example, calm–excited, sleepy–wide-awake); and the dominance index (α = .86) comprised three pairs of opposites (for example, submissive–dominant, influenced–influential). Customers responded to these items by indicating how they felt while they were in the bank office. To measure customer satisfaction, four widely used semantic differentials (for example, dissatisfied–satisfied, unfavorable–favorable) from Wirtz and Lee (2003) were collapsed to form a satisfaction index (α = .89) using the same bipolar response format. Given that
feelings-as-information theory primarily focuses on global judgments (as a consequence of an individual’s current affective state), the satisfaction items concerned customers’ overall satisfaction with their stay at the bank. Thus, the satisfaction judgments did not concern the particular bank teller or the specific bank office, but rather reflected customers’ global ratings of satisfaction while being in the bank that particular day. Such global judgments have been used in previous related research (e.g., Trougakos et al., 2011).

In addition to the above measures, customers were asked to state the amount of time they had spent at the bank office (in minutes) and to rate the service quality they had received. Service quality was measured with seven items (for example, “Customers are treated well at this bank office;” “This bank offers high-quality service”) on a scale anchored at 1 (strongly disagree) and 7 (strongly agree). Items were adapted from Baker et al. (1994) and were averaged to form a composite index of service quality ($\alpha = .90$). These measures were collected in an attempt to increase the internal validity of the experiment. Thus, in order to justify that the results should primarily be an effect of employee-displayed smiling rather than any of these other potentially confounding variables, time spent in the bank office and ratings of service quality should not, optimally, differ between conditions. Given that the smiling (versus non-smiling) bank teller only had a very brief encounter with the customers upon store entry, ratings of service quality should arguably be more heavily influenced by the other employee(s) with whom customers had their primary interaction while in the bank. Hence, it is likely that a service failure during the customer’s primary employee interaction would be reflected in the service quality ratings, and could therefore be controlled for.

**Results**

A one-way analysis of variance (ANOVA) on customer satisfaction revealed a statistically significant effect of employee condition; $F(1, 200) = 7.21, p = .008, r = .19$ [2]. In support of
H1, customers in the smiling employee condition \((M = 3.12; SD = 0.87)\) reported higher levels of satisfaction than customers in the non-smiling employee condition \((M = 2.73; SD = 1.16)\).

The author conducted similar analyses on pleasure, arousal, and dominance. A one-way ANOVA on pleasure produced a statistically significant effect of employee condition; \(F(1,200) = 4.57, p = .034, r = .15\). Corroborating H2a, participants in the smiling employee condition \((M = 3.44; SD = 0.78)\) experienced more pleasurable feelings than participants in the non-smiling employee condition \((M = 3.15; SD = 1.16)\). On the contrary, customers’ levels of arousal did not differ between the smiling \((M = 3.13; SD = 1.05)\) and the non-smiling employee condition \((M = 2.96; SD = 1.17; F(1,200) = 1.16, p = .28, r = .08)\). Thus, H2b was supported, and arousal did not mediate the effect of employee-displayed smiling on customer satisfaction, in support of H3b. However, a one-way ANOVA on dominance found a marginally significant effect of employee condition, \(F(1,200) = 3.64, p = .058, r = .13\). In line with H2c, customers in the smiling employee condition \((M = 2.32; SD = 1.43)\) felt more dominant than customers in the non-smiling employee condition \((M = 1.92; SD = 1.59)\).

Because the effect of employee condition produced the same results for pleasure, dominance, and customer satisfaction, the author further examined whether pleasure and dominance mediated the effect of employee condition on customer satisfaction (H3a and H3c). Mediation is established when: (1) the independent variable significantly influences the dependent variable; (2) the independent variable significantly influences the potential mediator in the same way as the dependent variable; and (3) the mediator, included as a covariate, significantly influences the dependent variable, while the effect of the independent variable is reduced (Baron and Kenny, 1986). It is clear from the above analyses that employee condition influenced pleasure and dominance in the same way as customer satisfaction. In terms of the third step, an ANCOVA on customer satisfaction with pleasure as the covariate produced a statistically significant effect of the covariate; \(F(1,199) = 123.93, p <\)
Moreover, the previously significant effect of employee condition was reduced and did not reach statistical significance; $F(1,199) = 2.93, p = .089, r = .12$. Thus, consistent with H3a, pleasure mediated the effect of employee-displayed smiling on customer satisfaction. A similar ANCOVA with dominance as the covariate revealed that dominance was significantly associated with customer satisfaction; $F(1,199) = 37.42, p < .001, r = .40$.

Central to H3c, the effect of employee condition was reduced in significance; $F(1,199) = 4.31, p = .039, r = .14$. Therefore, dominance also mediated the effect of employee-displayed smiling on customer satisfaction [3]; hence, H3c was supported. Following the guidelines laid out by Rucker et al. (2011), the author investigated the magnitude of each mediator by comparing their effect sizes. Using Fisher’s $r$-to-$z$ transformation on the effect sizes obtained for pleasure and dominance in the ANCOVAs, the effect size for pleasure was found to be significantly larger than for dominance ($z = 3.03, p = .002$). Thus, pleasure is most likely to be the primary mediator for the relationship between employee-displayed smiling and customer satisfaction, although it seems to have spillover effects on other affective states associated with positive emotions. Supporting this notion, a one-way ANCOVA on customer satisfaction with pleasure and dominance as covariates showed that both pleasure and dominance were significantly associated with customer satisfaction, whereas the previously significant main effect of employee condition was reduced to non-significance; $F(1,198) = 2.45, p = .119, r = .11$. However, the link between pleasure and customer satisfaction ($F(1,198) = 79.08, p < .001, r = .53$) was larger than the link between dominance and customer satisfaction ($F(1,198) = 4.85, p = .029, r = .15$). Fisher’s $r$-to-$z$ transformations on the effect sizes obtained for pleasure and dominance in this ANCOVA again revealed that the effect size for pleasure was significantly larger than for dominance ($z = 4.38, p < .001$); this is in line with H3c.

To ascertain that the results would not be confounded by perceived service quality or time spent at the bank office, the author conducted two one-way ANOVAs on these measures,
with employee condition (smiling, non-smiling) as the between-subjects factor. The analysis on service quality was non-significant; $F < 1, p = .33$. Thus, ratings of service quality did not differ between customers in the smiling ($M = 6.59; SD = 0.58$) and non-smiling ($M = 6.48; SD = 0.91$) employee condition. A similar analysis on time spent at the bank office also failed to reach significance; $F(1, 200) = 1.98, p = .16$. If anything, customers in the smiling employee condition ($M = 18.81$ minutes; $SD = 15.56$) reported spending a slightly longer time at the bank office than customers in the non-smiling employee condition ($M = 16.32; SD = 8.04$), which makes this account unlikely to have been the main driver of the results. Likewise, the high mean values on service quality (as well as on pleasure and customer satisfaction) contradict the claim that service failures would have been a frequent issue in the current investigation. In addition, controlling for customers’ service quality and time spent at the bank in the main analyses did not change the nature and significance of the results corresponding to affect and customer satisfaction. This supports the author’s argument that the results are primarily an effect of employee-displayed smiling.

**Discussion**

The present field study has shown that employee-displayed smiling during brief service encounters has a significant positive effect on customer satisfaction. This effect is mediated by customers’ levels of pleasure and, to a weaker extent, by dominance. By showing this, the current study conceptually corroborates previous related research (Gabriel *et al.*, 2015; Keh *et al.*, 2013; Kim and Yoon, 2012; Mattila and Enz, 2002; Musgrove, 2011; Pugh, 2001; Söderlund and Rosengren, 2008; Trougakos *et al.*, 2011; Tsai and Huang, 2002). However, it also contradicts a number of studies (Barger and Grandey, 2006; Hennig-Thurau *et al.*, 2006; Shaw Brown and Sulzer-Azaroff, 1994), in which employee-displayed smiling was not found
to influence customers’ affective states and/or satisfaction. The findings of the present study have several important implications for both theory and practice.

*Theoretical Implications*

From a theoretical standpoint, the present research has at least three central contributions.

First, as far as can be ascertained, this is the first experimental field study to examine the isolated effect of employee-displayed smiling on customer affect and satisfaction. Whereas previous research in field settings (e.g., Gabriel *et al.*, 2015; Keh *et al.*, 2013; Kim and Yoon, 2012; Pugh, 2001; Rafaeli, 1989; Sutton and Rafaeli, 1988; Tsai and Huang, 2002) has typically relied on a combined measure of employee-displayed positive behaviors (including, but not restricted to, smiling), the present study investigated the unique impact of an employee’s smile. Given the finding that employee-displayed smiling positively influenced customers’ levels of pleasure and satisfaction, this provides more direct evidence for the psychological processes justified by emotional contagion and feelings-as-information theories.

Second, in an attempt to address inconsistencies in previous related research, the present study suggested that one reason for these inconsistencies could be the different affect measures that were used. Some studies (e.g., Pugh, 2001; Hennig-Thurau *et al.*, 2006) have relied on affect measures that almost exclusively relate to arousal, while others (e.g., Musgrove, 2011; Söderlund and Rosengren, 2008) have relied on measures completely associated with pleasure. Yet others (e.g., Barger and Grandey, 2006; Kim and Yoon, 2012; Small and Verrochi, 2009; Tsai and Huang, 2002) have mixed pleasure and arousal-linked measures and collapsed the responses into a single broad affect index. The present study differs from most other studies in that it measured all affective dimensions (that is, pleasure, arousal, and dominance) in the S-O-R model, rather than one or a mixture of two dimensions.
The findings of the current study indicate that employee-displayed smiling has the strongest impact on customers’ levels of pleasure, and that pleasure is the strongest predictor for customer satisfaction. Thus, in line with emotional contagion, an employee’s smile particularly triggers those feelings that are most typical for a smile (happiness and joy) in the customer. Due to the resulting increased pleasure, the customer will then make feeling-congruent (positive) satisfaction judgments, as postulated by feelings-as-information theory. However, dominance also has a non-trivial effect on customers’ satisfaction judgments. The fact that employee-displayed smiling had a positive impact on customers’ levels of dominance, and that dominance influenced customer satisfaction (although to a significantly lower degree than pleasure), suggests that pleasure is the driving mechanism for the smiling–satisfaction link (cf. Rucker *et al.*, 2011). However, this mechanism seems to have spillover effects on other affective states associated with positive emotions, such as feelings related to dominance. Nonetheless, given that dominance is less typical for the feelings experienced when smiling, this affective state will have a weaker impact on overall satisfaction judgments.

A final important contribution of the present study stems from the fact that few previous studies have used experimental design to investigate the effect that employee-displayed positive behaviors in general, and smiling in particular, has on customers’ affective states. Consequently, although previous research has indicated that emotional contagion should be the underlying reason why a smiling employee would increase customers’ positive affect, few studies have tested this experimentally. Hennig-Thurau *et al.* (2006) investigated the effect of employee-displayed smile strength on participants’ affect and satisfaction, and used an experimental research design that enabled them “to assess the cause-effect nature of emotional contagion more precisely” (p. 59). However, their study was conducted as a simulated service encounter in which actors played the roles of service employees. Moreover, the participants were university students, and their positive affect measures mainly comprised
items corresponding to one affective dimension (arousal). The present field study, by contrast, was conducted in a real retail/service environment with actual customers, a real employee, and with measures of all affective dimensions in the S-O-R model. It is important to note that the affect-based findings of the present study do not necessarily contradict the results by Hennig-Thurau et al. (2006). However, the current research reasonably paints a more complete picture. Primarily using arousal-related items, Hennig-Thurau et al. (2006) found that employee-displayed smile strength during a service encounter did not influence participants’ ratings on these arousal-related measures. This finding led the authors to conclude that emotional contagion “does not remain throughout the completion of the encounter, because post-encounter emotions do not appear to be influenced by mimicry effects” (p. 68). A more plausible explanation could be that Hennig-Thurau et al. (2006) did not measure the affective dimension of pleasure, which more directly taps the feelings associated with smiling, and therefore found no support for the emotional contagion explanation. However, the present study did support such an explanation, with employee-displayed smiling found to have a particularly strong influence on customers’ levels of pleasure and an additional, albeit weaker, influence on their dominance levels, as measured several minutes after the actual service encounter had taken place. Thus, the present research challenges the view that smiling-induced emotional contagion does not remain throughout the completion of the service encounter. Still, similar to Hennig-Thurau et al. (2006), the present study failed to find that employee-displayed smiling had any influence on customers’ feelings of arousal.

Practical Implications

The findings reported herein suggest that “service with a smile” may have far-reaching consequences. Even though the service encounters in the present study lasted less than a
minute, customers who were greeted by the smiling (versus non-smiling) employee felt more pleased and reported significantly higher levels of customer satisfaction. Research also shows that smiling is related to customer outcomes with demonstrated financial consequences. For example, Tidd and Lockard (1978) found that a waitress who served customers with a strong smile not only increased the extent to which the customers smiled, but also attracted significantly larger tips, both from male and female customers. More recently, Kulczynski et al. (2016) found that advertisements featuring celebrities with a smiling facial expression resulted in higher levels of pleasurable feelings among raters, with this positive affective state mediating the link between the facial expression of the ad source and the ad attitudes, brand attitudes, and purchase intentions of the raters. With these findings in mind, the results of this study indicate that employee-displayed smiling should play a key role in the long-term success of various retail and service firms. Customer satisfaction is inextricably linked to consumer loyalty (Oliver, 1999), and is a key factor in determining customers’ purchase decisions (Taylor and Baker, 1994) and predicting a variety of financial outcomes (Gupta and Zeithaml, 2006). Hence, satisfied customers should be more likely to return to a store (Tsai and Huang, 2002) and pass on positive word-of-mouth about the store (Tsai, 2001).

Therefore, the obvious managerial implication from the current research is that managers should encourage, and potentially train, employees to act in ways associated with positive emotions. Moreover, it should be easier for firms to justify the employment of service workers who are good at displaying positive emotions through smiling than to use other non-verbal factors as recruitment criteria. For instance, many countries prohibit the use of physical attractiveness as a recruitment criterion, but it is rarely illegal to select employees based on their ability to convey positive emotions (Berg et al., 2015; Keh et al., 2013). In addition, recent research shows that employees who are rated as low (versus high) in attractiveness can compensate for their appearance by displaying positive emotions, which means that attractive
and less attractive employees produce the same levels of customer satisfaction if the employees display positive emotions (Keh et al., 2013). This finding suggests that managers could also hire employees based on how good they are at acting and expressing themselves in a genuinely positive manner (Barger and Grandey, 2006; Grandey, 2015).

However, a note of caution should be raised regarding the authenticity of the employees’ smile and other positive displayed behaviors. Although not examined in the present study, a required and therefore “faked” smile may have negative effects on customer affect and satisfaction, as inauthentic displays of positive emotions have been shown to reduce employee friendliness as well as customer satisfaction (Chi et al., 2011; Grandey et al., 2005; Groth et al., 2009; Wang and Groth, 2014). Such “surface acting” has also been found to negatively influence service workers’ job satisfaction, job attitudes, well-being, and the service they give to customers (Hülsheger and Schewe, 2011; Whiting, 2014). Hennig-Thurau et al. (2006) suggested that “the authenticity of the emotional display by frontline staff and the sincerity with which staff interacts with customers may be much stronger drivers of service outcomes than policies that require people to smile at any cost” (p. 70). People’s true feelings are often displayed through postures, facial expressions, and other non-verbal and verbal cues during interpersonal communication situations (Ambady and Rosenthal, 1992; Ekman et al., 1988). This point indicates that managers should also make an effort to create a pleasant store atmosphere for the employees so that the feelings and behaviors displayed by frontline employees are genuine. Such a strategy should create a win-win situation, in which well-being is improved, employees and customers feel happier and more satisfied, and the firm is more successful financially (Bujisic et al., 2014; Chi et al., 2011; Grandey, 2015; Groth et al., 2009; Hülsheger and Schewe, 2011; Wang and Groth, 2014).

From a broader perspective, the current research suggests that interpersonal communication situations in which a “sender” transmits facial expressions associated with
happiness to a “recipient” should positively influence the recipient’s levels of pleasure and result in more positive impressions, both of the sender and the surrounding environment. This, in turn, should have a positive impact on how the sender evaluates the recipient (cf. Chartrand and Bargh, 1999).

Limitations and Future Research

This study has certain limitations. As the authenticity of the employee’s smile was not manipulated or measured, it cannot be ascertained that all customers in the smiling employee condition inferred that the employee’s smile was genuine. However, this would have reduced (rather than magnified) the likelihood of obtaining significant differences between conditions.

In line with most related research (e.g., Musgrove, 2011; Pugh, 2001; Söderlund and Rosengren, 2008; Trougakos et al., 2011), but unlike some studies, the author did not measure customers’ affective states before the service encounter (Hennig-Thurau et al., 2006; Tsai and Huang, 2002) or their initial smile strength before the encounter (Barger and Grandey, 2006). However, given the quasi-experimental design, this is unlikely to have had a strong impact on the results.

Attrition could, to some extent, be systematic in the current study, with customers feeling positive being more likely to participate. However, as with the authenticity issue, this would have reduced rather than amplified the obtained results (cf. Tsai, 2001).

An interesting avenue for future research would be to investigate the impact of employee-displayed smiling on customers’ affective states and satisfaction in both utilitarian and hedonic service settings. Using self-administered questionnaires on undergraduate students, Jiang and Wang (2006) showed that the importance of pleasure for customer satisfaction was weaker (but still statistically significant) in the case of a utilitarian service (a banking setting) than in the case of a hedonic service (a karaoke setting). They also showed
that arousal had no effect on customer satisfaction in the utilitarian case, but had a significant positive impact in the hedonic case. The fact that the present study was conducted in a utilitarian (banking) context suggests that the author’s test of emotional contagion within this context should be conservative, and that the effects obtained could be larger in more hedonic-oriented service and retail settings. Indeed, it has been claimed that “the interaction modes between bank tellers and customers are more mechanical” (Tsai and Huang, 2002, p. 1002), which could make it difficult to obtain affect-related differences on customers within such a utilitarian context. This point deserves attention in future studies that build on emotional contagion and feelings-as-information theory and is an opportunity for future research.

Another fruitful avenue for future research would be to examine how other employee-displayed cues can influence customers’ affect, satisfaction, and actual purchase behavior. For instance, instead of focusing on cues signaling submissiveness (such as smiling), it would be interesting to examine whether the opposite of submissiveness signals (that is, dominance cues) can impact customers. Indeed, ongoing research shows that employee-displayed physical dominance (for example, a muscular and physically fit employee) induces a status threat in male customers, which motivates them to spend more money – particularly on products that signal status through price or size – as a compensatory consumption response (Otterbring et al., 2016). Scholars could continue this line of research by investigating whether other markers of dominance, such as a deep voice, can influence customers’ affective states and purchase decisions.

**Conclusion**

To the best of the author’s knowledge, this study is the first experimental evidence from actual field settings for a smiling-induced emotional contagion effect. The present research therefore makes a significant contribution to emotional contagion theory as well as other
affect-based theories in psychology, marketing, and service research. Furthermore, in addition to the experimental demonstration that pleasure is the main driver for the effect of employee-displayed smiling on customer satisfaction (shown for the first time under ecologically valid conditions), the current work reveals that customers’ feelings of dominance act as an additional mediator for the smiling–satisfaction link. This has never been reported before in the literature on smiling. Taken together, these findings contribute to the growing stream of transformative service research focusing on how well-being can be achieved in service settings to improve happiness, joy, and emotional health in customers and employees (Anderson and Ostrom, 2015; Anderson et al., 2013; Ostrom et al., 2015).
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Footnotes

[1] Similar to related research (e.g., Tsai and Huang, 2002) suggesting that the effect of positive employee-displayed behaviors (including smiling) is not influenced by whether the gender composition in the service encounter is congruent (for example, female customer–female employee) or incongruent (for example, female customer–male employee), the inclusion of customer gender as an additional between-subjects factor did not change the nature and significance of the results.

[2] The correlation coefficient $r$ represents a small, medium, and large effect size when $r = .10, .30, \text{ and } .50$, respectively (Otterbring *et al.*, 2013b; 2014a; b).

[3] Following Hayes (2009), Zhao *et al.* (2010), and Rucker *et al.* (2011), the author questions the use of terms such as “full” versus “partial” mediation, for at least two important reasons. First, the proportion of significant mediation effects that could be described as full decreases as the sample size increases. This means that a sample size of $N = 200$ would make it more difficult to obtain “full” mediation than it would with a smaller sample (Rucker *et al.*, 2011). Second, if the total effect (in this case, the effect of employee-displayed smiling on customer satisfaction) is highly significant, which was the case in the current study ($p = .008$), then “even a well-measured mediator and an objectively strong intervening process might yield claims of only partial mediation” (Rucker *et al.*, 2011, p. 366).
<table>
<thead>
<tr>
<th>Study</th>
<th>Type of Study</th>
<th>Retail/Service Context</th>
<th>Sample</th>
<th>Independent Variable</th>
<th>Positive Affect (PA) Index</th>
<th>Result, PA</th>
<th>Result, Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pugh (2001)</td>
<td>Field study</td>
<td>Retail banks</td>
<td>220 customers (gender not reported)</td>
<td>Employee-displayed emotions index (smiling, greeting, eye contact, thanking)</td>
<td>Six items: Most associated with arousal</td>
<td>Employee-displayed emotions positively influenced PA</td>
<td>Not measured</td>
</tr>
<tr>
<td>Tsai and Huang (2002)</td>
<td>Field study</td>
<td>Footwear stores</td>
<td>352 customers (75% male)</td>
<td>Employee affective delivery index (smiling, greeting, eye contact, thanking, speaking rhythmically)</td>
<td>Four items: Most associated with pleasure</td>
<td>Employee affective delivery positively influenced PA</td>
<td>Not measured explicitly, but employee affective delivery positively influenced word-of-mouth and future purchase intentions, with PA acting as a mediator</td>
</tr>
<tr>
<td>Barger and Grandey (2006)</td>
<td>Field study</td>
<td>Food/coffee services</td>
<td>173 customers (60% female)</td>
<td>Employee-displayed smile strength (no smile, minimal smile, maximal smile)</td>
<td>Three items: Most associated with pleasure</td>
<td>No effect, but employee-displayed smile strength positively influenced customers’ smile strength</td>
<td>Employee-displayed smile strength had a positive impact on encounter satisfaction</td>
</tr>
<tr>
<td>Hennig-Thurauf et al. (2006)</td>
<td>Lab-based simulated service encounters</td>
<td>Movie rental service</td>
<td>223 university students (47% female)</td>
<td>Employee-displayed smile strength (weak, strong)</td>
<td>Four items: Most associated with arousal</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td>Sönderlund and Rosengren (2008)</td>
<td>Lab-based scenarios of service encounters</td>
<td>Travel agency</td>
<td>220 undergraduates and adult decision makers (46% female)</td>
<td>Employee-displayed smiling (smiling, non-smiling)</td>
<td>Three items: All associated with pleasure</td>
<td>Employee-displayed smiling positively influenced PA</td>
<td>Employee-displayed smiling positively influenced customer satisfaction, with PA acting as a mediator</td>
</tr>
<tr>
<td>Musgrove (2011)</td>
<td>Computer-based scenarios of service encounters</td>
<td>Gifts, collectibles, footwear, and hat stores</td>
<td>547 participants: 265 online survey panel participants, 282 university students (57% female)</td>
<td>Employee-displayed smiling (smiling, non-smiling)</td>
<td>Seven items: All associated with pleasure</td>
<td>Employee-displayed smiling positively influenced PA</td>
<td>Not measured explicitly, but employee-displayed smiling positively influenced approach behaviors and store patronage intentions, with PA acting as a mediator</td>
</tr>
<tr>
<td>Trougakos et al. (2011)</td>
<td>Field-based surveys with students acting as poll workers</td>
<td>Campus organizations</td>
<td>140 university students included in the analyses (gender not reported)</td>
<td>Display rule (positive, neutral)</td>
<td>One item: very negative/positive</td>
<td>A positive display rule positively influenced PA</td>
<td>Not measured explicitly, but a positive display rule positively influenced overall attitudes toward the organizations (partly measured with satisfaction), with PA acting as a mediator</td>
</tr>
<tr>
<td>Kim and Yoon (2012)</td>
<td>Field study</td>
<td>Clothing and accessories stores</td>
<td>117 customers (66% female)</td>
<td>Employee-displayed and customer-displayed emotions index (smiling, greeting, eye contact, thanking, pleasantness)</td>
<td>Four items: Most associated with pleasure</td>
<td>Employee-displayed emotions positively influenced customer displayed emotions and customers’ PA</td>
<td>Not measured</td>
</tr>
<tr>
<td>Keh et al. (2013)</td>
<td>Field study (Experiment 2)</td>
<td>Supermarket</td>
<td>223 customers included in the analyses (67% female)</td>
<td>Employee-displayed emotions index (smiling, greeting, eye contact, thanking, being pleasant)</td>
<td>Three items: One associated with pleasure (joy), the other being hard to classify (acceptance, expectancy)</td>
<td>Employee-displayed emotions positively influenced PA</td>
<td>Employee-displayed emotions positively influenced customer satisfaction, with PA acting as a suggested mediator</td>
</tr>
<tr>
<td>Study</td>
<td>Design</td>
<td>Setting</td>
<td>Sample Size</td>
<td>Independent Variable</td>
<td>Measure</td>
<td>Results</td>
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<tr>
<td>Wang and Groth (2014)</td>
<td>Field study</td>
<td>Specialty stores, department and</td>
<td>243 customers included in the analyses (68% female)</td>
<td>Employee emotional labor strategy (real vs. faked displays of happiness)</td>
<td>10-item short form of the Positive and Negative Affect Scales (only used as a control variable)</td>
<td>Real (vs. fake) emotional labor strategy positively influenced service satisfaction</td>
<td></td>
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<tr>
<td>Gabriet et al. (2015)</td>
<td>Field study (Experiment 2)</td>
<td>Counter-only stores (e.g., coffee shops)</td>
<td>164 customers included in the analyses (gender not reported)</td>
<td>Employee positive emotional display index (smile strength, eye contact, pleasantness of voice)</td>
<td>Not measured, but two of the four encounter satisfaction items (content, pleased) directly relate to pleasure</td>
<td>Employee positive emotional displays positively influenced encounter satisfaction and employee friendliness</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1**: Studies investigating the impact of employee-displayed smiling (in isolation or together with other positive employee-displayed behaviors) on customer affect and satisfaction. Some studies had additional independent variables.
Figure 1: Conceptual model of the hypothesized relationship between employee-displayed smiling, customer affect (pleasure, arousal, and dominance), and customer satisfaction, as justified by emotional contagion theory and feelings-as-information theory.