IMPACT OF CULTURAL DIFFERENCES IN AFFECT VALUATION

ON CUSTOMER DECISION MAKING

BY

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ABSTRACT

Businesses go to great lengths to create positive emotional experiences for their customers, often applying the same affective or emotional practices in communication with a culturally diverse customer base. This dissertation argues that culture-specific emotional norms and display rules shape consumers' responses to marketers' attempts to use positive emotions as a persuasion tool. Simply put, an emotional campaign that works in Boston may not work in Beijing.

Through two essays, this dissertation investigates the cultural effect on consumers' affect valuation by focusing on two issues that have important managerial implications. Essay One examines the effectiveness of one ubiquitous marketing tactic—employees' (positive) affective display (EAD) in customer interactions. Departing from the prevailing view that "service with a smile" is always desirable, this research shows that the relative impacts of EAD dimensions (authenticity and frequency) on customer outcomes (positive mood, negative mood, interaction quality, and customer satisfaction) depend on the affective content associated with the service and customer/employee cultural group membership. Under certain circumstances, positive EADs may even boomerang. The identification of boundary conditions of EAD efficacy reconciles the conflicting findings in prior literature and provides more consistent practical guidelines.

Essay Two investigates people's preferences and pursuit of different types of positive emotions—high arousal emotions (excitement, elation, and enthusiasm) and low arousal positive emotions (peacefulness, quiescence, and relaxation). Findings demonstrate that westerners and younger adults, compared to easterners and older adults,

value HAP emotions more and LAP emotions less. Moreover, drawing on regulatory focus theory and primary/secondary control framework, this research sheds light on the motivational mechanisms underlying the cultural effect on people's emotion valuation.

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CHAPTER ONE: INTRODUCTION

Research Context and Objectives

From Coca Cola's efforts to portray Coke as a "happiness factory" to Wal-Mart's requirement that its employees display positive emotions (e.g., smiling, greeting, thanking, and speaking in a rhythmic tone), use of positive affect as a strategic tool to engage and persuade customers is ubiquitous. However, a large research corpus suggests though, that affective influences are culture specific, so an emotional campaign that works in Boston may not work in Beijing.

The primary motivation inspiring this dissertation is to better understand culture-based differences in consumers' affect valuations. Specifically, my dissertation focuses on two issues: (1) How do service employees' positive affective displays impact customer outcomes (e.g., customer satisfaction) in intra- and inter-cultural communications, given that different cultures have distinctive rules for encoding and decoding emotions? (2) When and how should marketers synchronize their emotional appeals with customers' specific emotional goals, as people with different cultural backgrounds tend to value emotions differently?

Organization of the Dissertation

This dissertation is prepared as two stand-alone essays but linked by their common goal of exploring the cultural effect on consumers' affect valuation. Chapter Two presents Essay One, which studies the role of affect valuation in the context of

interpersonal interactions in service encounters. This research is motivated by the observation that companies spend huge sums in training employees to follow display rules and express positive emotions in their interactions with customers, without sufficient evidence of the effectiveness of employees' affective display (EAD) on customer outcomes. Adopting a contingency approach, I examine the relative impacts of two dimensions of EAD—authenticity and frequency—on customer outcomes (customer mood, interaction quality and customer satisfaction) in different types of services and in various intra- and inter-cultural service encounters.

The second essay, presented in Chapter Three, examines consumers' valuation of discrete positive emotions in the context of marketing communication. This essay contends that people in different cultures inherently differ in their emotional goals, which in turn impact their downstream decision-making. Drawing on regulatory focus theory and primary/secondary control framework, this research provides insight into the motivational mechanisms underlying the cultural effect on people's emotion valuation. That is, people value or pursue discrete emotions that are compatible with their chronic personal goals (Study 1 and Study 2). Finally, I extend the investigation to age-linked differences in valuation of discrete positive emotions based on the same theoretical rationale (Study 3).

In Chapter Four, I summarize both the research motivation driving this dissertation and the main findings.

CHAPTER TWO: ESSAY ONE

Are Your Employees Smiling Too Much: The Impact of Employees' Affective Display on Customer Responses

With rare exception, frontline service employees—from Disney ambassadors to Wal-Mart greeters—are expected, and often required to, express socially desirable, positive emotions in their customer interactions. Firms train, monitor, and manage their employees' (positive) affective displays (hereafter EADs) as a strategic tool to improve customer experience and enhance service relationships (Hennig-Thurau, Groth, Paul, and Gremler 2006; Gremler and Gwinner 2008). It is not surprising, therefore, that managing EADs is a vital component of frontline employee training programs (Richard 2006), consuming a significant portion of the employee-learning and development budgets, estimated at a staggering $134.07 billion in 2008 in the U.S. alone (ASTD 2009 report) . Besides dollar spending, requiring EADs in the absence of positive internal feelings, carries insidious, non-monetary costs, including employees' emotional exhaustion, burnout and eventually turnover (Grandey 2003; Trougakos, Beal, Green, and Weiss 2008).

Yet enthusiastic multinational corporations are extending EAD training, often without adaptation, to their overseas operations. One example of this is Wal-Mart's smiling-employee policy that was extended to its German market without success.

Frequent use of EADs seems to be predicated on the questionable assumption that EADs are *always* desirable, especially since the corpus of research on this topic is rather tenuous—consisting of less than a dozen studies with many reporting conflicting findings. Some, for instance, find frequent use of EADs effective (e.g., Barger and Grandey 2006; Pugh 2001), while others argue for sincerity or authenticity of EADs (Grandey, Fisk, Mattila, Jansen, and Sideman 2005; Hennig-Thurau et al. 2006).

Even a cursory review of the literature shows that there remain fundamental unanswered/inadequately answered questions about the effectiveness of EADs in service encounters, such as under what conditions is a surface (or mere mechanical) display of positive emotions (e.g., a factitious smile) sufficient? When should the EADs be backed by authentic (genuinely felt) feelings? Are there situations where customers either do not expect or do not care about EADs? What roles do frequency and authenticity of EADs play in different types of services? Could inauthentic EADs boomerang and undermine service quality? Are there differences in customers' ability to detect employees' authentic emotional displays from the contrived ones, especially when their cultural backgrounds are different?

In this paper, we attempt to answer several of these questions by focusing on two aspects of service encounters: (1) the type of service, and (2) the inter- and intra-cultural dimensions of the employee-customer interfaces[1]. In the main, we contend that customers are more receptive to EADs in some services than in others, and that the EAD effects are

[1] We adopt Brewer's (1979) view that in-group and out-group are reflections of the differentiation of peoples into distinctive ethnic groups. In this paper, we use in-group and out-group to characterize people with same or different cultural backgrounds. The terms are used interchangeably with intra-group and inter-group, respectively.

also moderated by the cultural backgrounds of the employees and customers. These distinctions allow us to account for the EAD effects at a more subtle, finer level of granularity, thereby enabling us to reconcile some apparently conflicting findings in the extant literature, and to provide managers with a little more informed guidance.

In the remainder of this paper, we first elaborate on the concept of EAD and its impact on customer responses during the frontline employee-customer interactions. We then propose the moderating roles of service-type (to reconcile the inconsistencies in EAD literature), and customer/employee cultural group membership (to examine the culture-bound differences in customers' EAD perceptions). Finally, we report findings from two studies testing our various theses and discuss the theoretical and practical implication of our research.

Conceptual Background of EAD Effects

EAD Frequency and Authenticity

An EAD, formally defined as "the act of expressing socially desired emotion during service transactions" (Ashforth and Humphrey, 1993, pp. 88-89), may involve greeting a customer, establishing eye contact, smiling at the customer, speaking in a rhythmic tone and expressing thanks, etc. (Pugh 2001; Tsai and Huang 2002). We use "smiles" and "EADs" interchangeably throughout this paper, following the recent trend in EAD research that focuses primarily on facial expressions, specifically smiles (Barger and

Grandey 2006; Hennig-Thurau et al. 2006), for humans rely most on facial expressions to understand others' feelings (e.g., Pantic and Rothkrantz 2000)**.**

EADs do not always involve true, underlying positive feelings; sometimes they may be feigned or inauthentic—based on surface acting (faking an explicit expression and suppressing the felt emotion). However, EADs that are based on deep acting, i.e., where the employee modifies internal feelings to match the displayed emotion, result in emotional expressions that appear authentic to customers (see Kruml and Geddes 2000; Grandey 2003).

We organize our review along the frequency and authenticity dimensions, examining the effects of EADs on such outcomes as customer moods, customer-employee rapport, service quality, customer satisfaction, and intention to reuse the service. The EAD frequency studies measure the mechanical aspects of EAD (e.g., the number of attempts to maintain eye contact, the extent of smiling per minute), whereas the EAD authenticity studies focus on the genuineness of employees' emotional expressions.

EAD Frequency Effects: Two Routes

Direct Effect of EAD Frequency. EAD frequency can directly influence customer outcomes (e.g., service quality perception, customer satisfaction, etc.) in multiple ways, including (i) customers' adopting a heuristic that frequent smiles or intense smiles indicate higher service quality (Barger and Grandey 2006); (ii) smiling is perceived as an indicator of affiliation or willingness to continue a current social interaction (Manstead, Fischer, and Jakobs 1999); (iii) people who express positive emotions are more likeable

or courteous (e.g., Clark and Taraban 1991); and (iv) because “service with a smile” is a social norm and a well-known job expectation (Rafaeli and Sutton 1987; Menon and Dubé 2000), frequent smiling signals employees’ deliberate effort to fulfill that expectation, creating an impression of higher quality service. Several empirical studies (e.g., Brown and Sulzer-Azaroff 1994; Tsai 2001; Tsai and Huang 2002) support EAD frequency’s direct effect on service outcomes. (For details, please see Table 1).

————Insert Table 1 about here. ———-

Indirect effect of EAD frequency via affect. Several EAD studies (Pugh 2001; Tsai and Huang 2002; Luong 2005; Barger and Grandey 2006; Hennig-Thurau et al. 2006) have implicated—some successfully and others without—primitive emotional contagion theory (Hatfield, Cacioppo, and Rapson 1992, 1994), which contends that humans innately, automatically, and unconsciously mimic the nonverbal behaviors (e.g., facial expressions, vocalizations, body language) of others (see also Chartrand and Bargh 1999), and in doing so, the object and the observer tend to converge emotionally via ipsative physiological feedback from their muscular, visceral, and glandular responses (Laird and Bresler 1992).

Hatfield, Rapson and Le (2009, p26), in their review article, provide a cogent description of how emotional contagion operates:

> “In theory, the process of emotional contagion consists of three stages: Mimicry, Feedback, and Contagion. People tend: (a) to automatically mimic the facial expressions, vocal expressions, postures, and instrumental behaviors of those around them, and thereby (b) to feel a pale reflection of others' emotions as a consequence of such feedback. (c) The result is that people tend to catch one another’s emotions.

> Presumably, when people automatically mimic their companions' fleeting facial, vocal, and postural expressions of emotion, they often come to feel a pale reflection of their companions' actual emotions. By attending to this stream of tiny moment-to-moment reactions, people are able to "feel themselves into" the emotional lives of others. They can track the intentions and feelings of others moment-to-moment, even when they are not explicitly attending to this information."

Thus, in the context of a service encounter, the more frequent the emotional display, even when fake, the more the customers tend to mimic it, engendering in them a positive mood, which in turn positively influences the service evaluations.

EAD Authenticity Effects: Two Routes

*Direct effect of EAD authenticity***.** The theoretical mechanisms for authentic EADs direct effect on customer outcomes are similar to those of frequent EADs discussed previously, i.e., compared to the employees with inauthentic emotional displays, customers perceive those with authentic emotional displays as friendlier and warmer (Grandey 2003), and performing extra-role behaviors, signaling employee's motivation to go beyond what is the "required" role and thus enhancing the evaluation of overall performance (Grandey and Brauberger 2002; Organs 1997).

Indirect effect of EAD authenticity via affect. Compared to inauthentic smiles, authentic smiles may create a greater positive mood in the observers without requiring much cognitive effort. Authentic and inauthentic smiles have distinct neurological bases and involve different facial expressions. For example, compared to a non-Dunchenne or inauthentic smile, a Duchenne or authentic smile is more symmetric and activates the contraction of both the orbicularis oculi muscles and zygomatic major muscles (Ekman and Friesen 1982; Wylie and Goodale 1988). The facial muscle movements involved in the production of authentic smiles are ipsative cues that are perceived as more pleasant,

putting observers in a more positive mood (Ekman 1992; Ekman, Davidson, and Friesen 1990).

In addition, a second set of processes, known as conscious emotional contagion, that require greater cognitive effort, also lead to positive mood in the observers (Barsade 2002; Bartel and Saavedra 2000) as follows: In personal interactions, people make conscious social comparisons, including comparison of their feeling states with others' in the proximity to determine how they should be feeling in a given situation (Adelman and Zajonc 1989; Sullins 1991). By observing others, individuals adjust the type and intensity of their own emotions or arousal states. In short, individuals obtain emotional convergence with those present in a given situation by appraising the social emotional cues and changing their emotional and behavioral expressions to adjust to those exhibited by others (Gump and Kulik 1997; Sullins 1991).

The extant EAD research, with one exception (Luong 2005), has exclusively focused on EADs' effects on customers' positive mood rather than negative mood. This is surprising because: (1) moods are bi-dimensional (e.g., Abelson, Kinder, Peters, and Fiske 1982; Cacioppo and Bernston 1994; Madden, Allen, and Tuible 1988; Watson, Clark, and Tellegen 1988); (2) both customers' positive and negative moods impact their perception and evaluation of the service experience (e.g., Luong 2005; Mattila and Enz 2005). Luong, who operationalized the moods as two distinct constructs, finds that indeed a positive EAD produces significantly higher positive mood and lower negative mood than a neutral EAD. In this research, we go a step beyond and contend that in those situations where customers do not expect high levels of employees' emotional

performance, positive EADs may even accentuate negative moods due to reactance (Brehm and Brehm 1981). When faced with frequent EADs, social norms dictate reciprocation, causing reactance and the attendant negative mood in the customers.

Lacunae in the EAD Literature

Our literature review reveals four crucial lacunae in the EAD research:

1. The bulk of research is almost exclusively frequency-centric and finds universally positive direct effects of EAD on customer outcome variables. The exceptions are (a) Grandey et al. (2005) and Gountas, Ewing, and Gountas (2007), who solely focus on EAD authenticity, without measuring frequency, and find significant effects of authentic EADs; and (b) Pugh (2001) and Hennig-Thurau et al. (2006), who simultaneously consider EAD frequency and authenticity and report conflicting findings, with Pugh (2001) finding that frequent EADs, regardless of employees' true feelings, enhance customer outcomes, whereas Hennig-Thurau et al. (2006) finding that the EAD effects depend on authenticity, but not frequency, casting doubt on the wisdom of "always serve with a smile."

2. Several studies (e.g., Tsai and Huang 2002; Grandey et al. 2005; Barger and Grandey 2006) hypothesize that EAD effects will vary by the type of service, yet none has included it as an independent variable.

3. Many EAD studies use customers' mood change as a process variable, but their mood measures raise significant validity concerns. Pugh (2001), for example, measures customers' mood in terms of "how they felt today," which is a rather relatively long timeframe in which events, other than EAD, could have affected customers' mood. In

Tsai and Huang's study (2002), customers are interviewed and asked to "recall" their mood state when they exited shoe stores. Thus, what is being measured is a recollection of mood, not the mood *per se* at the time of interaction. More crucially, with the exception of Luong (2005), no study has considered the positive and negative mood as two related but distinct constructs and that both could be affected by the EADs.

4. Given the diverse nature of our society, people from different ethnic, cultural, or subcultural groups repeatedly interact in the market place, but previous EAD research has universally used service encounters in which both employees and customers are from the same group (e.g., Tsai and Huang 2002—Taiwanese; Hennig-Thurau et al. 2006—German). Could the research findings of these studies hold if employees and customers were members of cultural out-groups, for despite basic universality (Ekman 1992), stylistic and cultural-specific differences play a crucial role in emotional expressions and interpretations (Elfenbein and Ambady 2002, 2003; Marsh, Elfenbei, and Ambady 2003). Thus, the premise that EAD effects are consistent across cultural boundaries may be untenable.

In view of the above lacunae, we propose a conceptual model and derive several hypotheses that we test in two studies, in which we: (i) measure EAD frequency and authenticity simultaneously; (ii) explicitly consider the type of service; (iii) to the extent mood is an explanatory process variable, we measure it at the time of encounter and with valid scales, and (iv) we do consider customers' and employees' divergent group membership.

A Proposed Conceptual Model of Moderated EAD Effects

Per extant research, EAD frequency and EAD authenticity both potentially have a direct effect on customer outcomes, and an indirect effect via changing customer moods. (see Figure 1a). However, in the proposed conceptual framework (Figure 1b), we explicitly incorporate the service-type and customer/employee group membership as moderators.

———— Insert Figures 1a and 1b about here. ———-

We propose that a service's affective content systematically influences customers' processing of EAD information, and thus moderates the strength of EAD frequency and authenticity effects. Likewise, customers' and employees' group membership act as a moderator and should attenuate or accentuate the EADs' impact (e.g., Ekman 1992; Elfenbein and Ambady 2002, 2003).

Because EADs involve emotions, we hypothesize EAD effects on four outcomes—positive mood, negative mood, interaction quality, and customer satisfaction—that appear more susceptible to emotional influences. We include on both positive and negative moods, as prior EAD literature has shown that these are independent constructs (e.g., Liu, Karasawa, and Weiner 1992), and both can be affected by EADs (Luong 2005). Interaction quality is included because: (1) it is a proximal measure of EAD's impact, versus more distal measures such as overall service quality, which might be affected by factors other than EADs, and (2) it broadly captures customers' perceptions and evaluations of employees' attitude, expertise, and behavior (Brady and Cronin 2001; Gremler and Gwinner 2008). Customer satisfaction was chosen

because it reflects a customer's overall assessment of service interaction just experienced (Hennig-Thurau and Klee 1997; Oliver 1997).

Below, we expand on the moderating effects of the affective content level of a service, followed by the effects of customer/employee cultural group membership.

The Affective Content Level of Services

The affective content in a service encounter is the "emotional arousal associated with the encounter" (Price, Arnould, and Tierney 1995, p.86), and it varies by the service-type (Mattila and Enz 2002). Services such as fast food purchase and dry cleaning generally are low in emotional arousal, and customers focus more on employees' competence and responsiveness. In contrast, hair styling, gift shopping, and wedding advisory are high affective content services, in which emotional content itself is an integral part of the interaction and hence, encounter satisfaction (Arnould and Price 1993). In such services, customers are motivated to focus on employees' emotional expressions (Russell, Bachorowski, and Fernandez-Dols 2003), and make inferences about their emotional states, motives, etc. Our thesis, therefore, is that the EAD-effectiveness will depend on the type of service.

Low Affective Content Services

In low affective content encounters, even though customers may be less attentive to emotional cues, EADs should have a direct positive effect on interaction quality and customer satisfaction, as customers perceive EAD as a fulfillment of employee's work role (Sutton and Rafaeli 1988; Parasuraman, Zeithmal, and Berry 1985), or as a courtesy

expression in a social context (Manstead et al. 1999). Further, EADs also should have a positive effect on customers' mood via primitive emotional contagion mechanism, which predicts that frequent EAD increases the likelihood of customers' mimicry and synchronization of positive emotions.

Other things being equal, we expect authentic EADs to lead to more positive reactions than inauthentic EADs, and because: (1) people prefer being treated in an authentic and honest way (Hennig-Thurau et al. 2006), and (2) authentic EADs, because of their distinctive neurological basis (Ekman 1992), will induce more positive mood and less negative mood. Conscious emotional contagion is less likely here though, because it is a cognitively effortful process, and is less likely to operate in low affective content services, as customers have little motivation to process EAD information and interactions in low affective content services are not intimate enough for customers to identify with employees (Barger and Grandey 2006). It is noteworthy that since customers' expectations and evaluations are simply based on standardized scripts and social norms, customers appreciate employees' effort to fulfill their work role and may be tolerant of even factitious EAD attempts up to a point. If the EADs tend to become too frequent though, customers may become annoyed. For example, consider a hurried customer at a bank for a routine transaction—while the customer wants to conclude her business quickly and leave, the employee is busy being nice and attempting to exchange pleasantaries, forcing the customer to reciprocate and causing reactance (Brehm and Brehm 1981) and negative mood.

In *low affective content* service encounters:

H1: Positive EADs in general, should lead to better customer outcomes (positive mood, interaction quality, and customer satisfaction) than neutral (control group) EAD.

H2a: Both EAD frequency and authenticity should (a) promote positive mood (and ameliorate negative mood), (b) interaction quality, and (c) customer satisfaction.

H2b: Frequent EADs may lead to higher negative mood than infrequent EADs.

High Affective Content Services

In high affective content services, customers pay more attention to employees' emotional cues, and they may be involved in perspective taking—putting themselves in the employees' shoes and inferring from employees' emotional display their current emotional and cognitive states and ulterior motives, if any (Russell, et al. 2003). As Price et al. (1995, p.87) argue:

> "At emotionally charged encounters, customers want recognition of the uniqueness of their personal experience. They want providers to interact with them on the basis of their emotional state, rather than according to a standardized script."

In such encounters, EAD frequency is less important. Instead, customers focus on employees' sincerity. If employees' emotional display is an expression of genuine joyfulness or authentic concern for customers, then according to conscious emotional contagion theory (Barsade 2002; Bartel and Saavedra 2000), customers will converge emotionally by feeling similar positive mood and experiencing less negative mood. However, if the EAD is inauthentic, then it denies the individual attention that customers desire in these services, and may be viewed as blatant impression management (Bolino 1999), and customers' mood will not be enhanced. In fact, given their emphasis on true

emotional experience in these situations, customers may even be offended and annoyed by synthetic smiles, leading to less favorable customer outcomes than no EAD at all. Crucially, we do not expect EAD frequency to accentuate customers' negative mood because customers expect employees' deliberate effort in emotional performance and affective components are an important part in this type of service encounters.

In *high affective content* service encounters:

H 3: Authentic and frequent EAD or authentic and infrequent EAD should lead to better customer outcomes (positive mood, interaction quality, and customer satisfaction) than neutral (control group) EAD; inauthentic and frequent EAD or inauthentic and infrequent EAD should lead to similar or worse customer outcomes than neutral (control group) EAD.

H4: Compared to EAD frequency, EAD authenticity should have a stronger effect on (a) promoting positive mood (and ameliorating negative mood), (b) interaction quality, and (c) customer satisfaction.

EAD Effects across Low and High Affective Content Services

So far we have considered EAD effects within a high or low affective content service. But what about comparisons across the two types of services? Recall that in a low affective content service, employees are merely expected to meet the social norm or job requirements—service with a smile—so that they may appear approachable and friendly, whereas in a high affective content service, affect, and hence, the EAD itself, is an integral component of the service. Thus, EAD frequency effect, in general, should be weaker in a high affective content service compared to a low affective content service and vice versa. Further, even the indirect effect of EAD frequency (via primitive emotional contagion) should be diluted due to the deliberate processing of emotional cues (Small and Verrochi 2009) by the customers and greater cognitive resources allocated for

this purpose. These same processes will lead to a better chance of conscious emotional contagion process and stronger mood effects in the high affective content services. We, therefore, propose:

Comparing EAD effects across two types of service encounters:

H5: Compared to low affective content service encounter, in high affective content service encounter, EAD frequency should have a weaker impact on (a) promoting positive mood (and ameliorating negative mood), (b) interaction quality, and (c) customer satisfaction.

H6: Compared to low affective content service encounter, in high affective content service encounter, EAD authenticity should have a stronger impact on (a) promoting positive mood (and ameliorating negative mood), (b) interaction quality, and (c) customer satisfaction.

Customer/Employee's Group Membership

In-Group Advantage in Emotion Recognition and Interpretation

In-groups and out-groups can be categorized along many dimensions, such as gender, race, religion, or social status. As the focus of this research is on rules about emotion expressions and interpretations, which are learned early in childhood and modified by social circumstances (Ekman and Friesen 1969; Matsumoto 2006), we chose cultural background of the individual as the in-group/out-group operationalization. Cultural differences in emotion display rules have been well established in research on culture and emotion. Specifically, whereas the encoding of basic facial muscle movements involved in emotional expressions are consistent across cultural groups, more delicate elements of facial expressions may differ across cultures (Marsh et al. 2003). The existence of these nonverbal accents—subtle cultural variations in the appearance of facial expressions—leads to in-group advantage in emotion-recognition (Elfenbein and

Ambady 2002). A perceiver is more likely to make accurate judgment of emotions if the expresser is a member of cultural in-group and uses a familiar pattern of emotionally expressive cues. This in-group advantage could result from the similar learning experiences, expressive styles (e.g., Scherer, Banse, and Wallbott 2001), emotional concepts (Russell and Yik 1996), and cognitive representations (Anthony, Copper, and Mullen 1992). Alternatively, individuals may have lower skills and/or motivation to accurately decipher emotional expressions from members of visibly different cultural groups (e.g., Markham and Wang 1996).

Asymmetric EAD Authenticity Effect on Customers' Perceptions: In-group and out-group differences

Different cultures have different emotional encoding rules—how emotions should be displayed)—and decoding rules—how emotions should be interpreted (Yuki, Maddux, and Masuda 2006; Matsumato and Ekman 1989; Lee, Chiu, and Chan 2005). In many western countries, where the independent-self is emphasized, direct and explicit expressions of emotions are encouraged as a means of accepting and expressing one's true self (Markus and Kitayama 1991). In contrast, in many eastern countries, such as Japan and China, people have more interdependent and collectivistic concerns and are more likely to control their emotional expressions to avoid imposing their own feelings on others (Heine, Lehman, Markus, and Kitayama 1999). Consequently, emotional signals tend to be more ambiguous in Japan and China.

There are cultural differences also in interpreting emotions. For example, Chinese and Japanese find eye muscle movement more diagnostic of emotion and are more likely to "read" the eye area in deciphering emotions (Yuki et al. 2006). As discussed

previously, authentic and inauthentic smiles have distinctive psychophysiological bases (Ekman et al. 1990; Fridlund 1994; Surakka and Hietman 1998), involving different facial muscle groups. The mouth, as the most expressive part of the face, is important for identification of a smile, but the eyes are a more accurate cue to diagnose the true emotional states of the expresser. Peoples who are more sensitive to the subtle eye muscle movement in emotion recognition (Yuki et al. 2006), will have a better chance of detecting whether a smile is authentic or inauthentic.

Consider two representative groups: Caucasian and Chinese. In the U.S., Caucasian customers may be less likely to accurately interpret the authenticity of Chinese service providers' emotional displays. They may also be less sensitive to how out-group members behave in inter-group communications. Thus, one would expect the Caucasian customers to be more sensitive to the authenticity of the Caucasian, but not the Chinese, employees' emotional displays. However, the Chinese customers, who tend to focus on eye muscle movements while interpreting emotional cues, should have a higher likelihood of correctly identifying EAD authenticity cues of both the Chinese and the Caucasian employees. We, therefore, propose:

> H7: When the customer and the employee in a dyad are from the same cultural group, EAD authenticity should have a positive impact on (a) promoting positive mood (and ameliorating negative mood), (b) interaction quality, and (c) customer satisfaction.
>
> H8: When the customer and the employee in a dyad are form different cultural groups (eastern and western cultures), EAD authenticity should have a positive impact on (a) promoting positive mood (and ameliorating negative mood), (b) interaction quality, and (c) customer satisfaction only when customers are Chinese.

Method Overview

We conduct two studies. Study 1 primarily compares the distinct process mechanisms underlying EAD effects in different types of services. We, therefore, use both a priori contrasts and structural equation modeling (SEM) to take advantage of the strength and flexibility of a mixed analysis methodology, which allows consideration of broader nomological network as well as experimentally manipulated effects (Palmatier et al. 2009). Study 2 is designed for testing the EAD effects in both intra- and inter-cultural employee-customer interfaces, and to examine the moderating effect of cultural group memberships. Our stimuli are videotaped service-interactions that portray EADs in a realistic and dynamic manner (Levesque and McDougall 2000), and afford the flexibility in managing manipulations and controlling confounds (Grandey et al. 2005). Additionally, the psychological and behavioral effects induced by videotapes are similar to those observed in real service settings (Bateson and Hui 1992).

Study 1: EAD Effects in High and Low Affective Content Service Encounters

Method

Design. A 2 (service-type: high affective-content versus low affective-content encounter) × 2 (EAD frequency: high versus low) × 2 (EAD authenticity: authentic versus inauthentic) between-subjects design with two (no smile) control groups (one each for the low affective-content encounter and for the high affective-content encounter) is

used. Undergraduate students (N=324, less 10 participants excluded for not fully following the instructions) from a major Midwestern university participated in the main experiment for course credit.

Stimuli and procedure. We recruited female actors from part-time employees in local stores that agreed to allow filming on their premises. Actors were requested to practice acting for three weeks to operationalize various experimental conditions. Based on the pretest results, we selected two service encounters that were relevant to the students—enabling them to envision themselves in the setting—and that allowed realistic manipulation of affective content: purchasing a dictionary in a bookstore (low affective content service) and buying flowers in a gift shop (high affective content service).

The scripts and scenes were controlled to be identical across conditions in each store. The same actors filmed the videos across all the conditions, and videos were edited to ensure the same approximate length.

Manipulation of EAD frequency. The actor who played the part of the employee was required to display a positive smile, defined as a noticeable upward twist of lips (Barger and Grandey 2006; Hennig-Thurau et al. 2006). The actor was instructed to smile frequently (five to ten smiles per minute) in the high-frequency condition and less frequently (one to two smiles per minute) in the low-frequency condition. In the two control conditions, the actor did not smile.

Manipulation of EAD authenticity. Following Hennig-Thurau et al. (2006) and Hochschild (1983), authenticity was operationalized by training the actors in the "deep acting" techniques (Please see Appendix A for details.) As a manipulation check, four

coders, unfamiliar with the research purpose, viewed the videos in random order and all categorized the videos in accordance with the intended manipulations.

Procedure. Upon arrival in a computer lab, participants were randomly assigned to one of the ten conditions and administered an adaptation of the Velten's (1968) mood induction procedure—reading 50 neutral sentences (e.g., scientific facts), each displayed on screen for 10 seconds—to neutralize their pre-encounter moods. Next, they were asked to observe the video of a service encounter from the perspective of the customer in the scene. The validity of this role-playing technique is well-established (Bitner 1990; Grandey et al. 2005). After watching the video, participants completed various dependent measures and were debriefed.

Measures. The dependent variables were measured via a series of multi-item Likert measures on a seven-point scale, ranging from "not at all" (1) to "very much so" (7), or from "strongly disagree" (1) to "strongly agree" (7). Appendix B provides complete list of items, scale sources, and item loadings.

EAD authenticity manipulation was checked using Grandey et al.'s (2005) two-item scale. Additionally, a three-item scale ($\alpha = .73$) was used to check the "emotionality" of the service (e.g., "This service consumption is emotionally involving"). Finally, "EAD relevance" was measured by a three item (e.g., I am not interested in the employees' displayed emotions in this type of service) scale ($\alpha = .82$) that reflected the degree to which the employees' positive emotional displays matter to the participants in different types of encounters.

Results

Manipulation checks. All manipulations were successful. Perceived authenticity was higher in the authentic conditions (M_{auth} = 3.84) than in inauthentic conditions (M_{inauth}= 2.07, F (1, 245) = 103.64, p <.01). No interaction was significant (Fs<1). In addition, the type of service, (purchasing a dictionary in a bookstore versus buying flowers in a gift shop showed significant differences in their affective content levels [encounter emotionality (M_{low} = 2.00, M_{high} = 5.04, t = 47.89, p <.01), and in their EAD relevance (M_{low} = 3.59, M_{high} = 4.87, t =11.75, p <.01)].

Measure quality checks. The correlation matrices for the measures are presented in Table 2. Cronbach's alpha, composite reliability, and average variance extracted for all measurement scales indicate sufficient reliability and convergent validity (see Appendix B). All coefficient alpha values and composite reliabilities are higher than .70—meeting or exceeding the recommended thresholds (Bagozzi and Yi 1988). All construct measures also met the discriminant validity criteria proposed by Anderson and Gerbing (1988).

———— Insert Table 2 about here. ———-

Customer outcome variables. We created an index for each customer outcome variable—customer positive mood, negative mood, interaction quality, and customer satisfaction. The means and standard errors of these dependent variables are shown in Figure 2.

———— Insert Figure 2 about here. ———-

Because the results of 2 (service affective content level) × 2 (EAD authenticity) × 2 (EAD frequency) ANOVAs were strikingly similar for these dependent variables, we report only one set of ANOVA test results, for the customer satisfaction index. A predicted main effect for frequency ($F(1, 244) = 5.74$, $p=.02$) was observed. As we predicted, customer satisfaction was higher among participants in the frequent condition ($M=4.52$) than in the infrequent condition ($M=4.11$). Furthermore, the main effect of EAD authenticity ($F(1, 244) = 109.96$, $p<.01$) was qualified by a significant two-way interaction with service affective content level ($F(1, 244) = 23.51$, $p<.01$), such that the effect of authenticity was more pronounced among participants in the high affective content condition than among those in the low affective content condition ($M_{au\text{-}high}= 5.29$, $M_{inau\text{-}high}= 2.69$, $F(1, 244)=125.63$, $M_{au\text{-}low}= 5.11$, $M_{inau\text{-}low}= 4.16$, $F(1, 244)=36.71$, respectively, *p*s<0.01). Additionally, when EAD was authentic, there was no effect of service-type. (Fs<1, not significant) In contrast, when EAD was inauthentic, customer satisfaction ratings fell significantly at the high affective service encounter (flowershop) relative to the low affective service encounter (bookstore) ($F (1, 244) = 44.18$, $p< .01$).

———— Insert Figure 3 about here. ———-

In the following analysis, we use a priori contrasts (Dunnett's test) to compare each positive EAD condition with the corresponding control group. We then use structural equation modeling to further explore the interaction effects (between customer outcome variables and service type) and provide insights into the underlying mechanisms. (The structural equation modeling analysis has the added benefit of accounting for measurement error).

Dunnett's tests. To test H1 and H3, within each type of service, we compared the control (no smile) group with the four conditions of positive EADs in a one-way ANOVA, which produced significant results for positive mood **(***F* (4, 155) =4.79, *p* < .01 and *F* (4, 149) =22.28, p < .01**)**, negative mood (*F* (4, 155) =6.59, *p* < .01 and *F* (4, 149) =15.08, p < .01) interaction quality **(***F* (4, 155) =16.45, *p* < .01 and *F* (4, 149) =43.60, p < .01**)**, customer satisfaction (*F* (4, 155) =10.57, *p* < .01 and *F* (4, 149) =34.52, p < .01). [Note: The results for the positive mood and interaction quality follow the same pattern as the customer satisfaction. We, therefore, report Dunnett's test results for customer satisfaction and negative mood only].

For customer satisfaction, in the low affective content encounter (bookstore) condition, Dunnett's tests indicated that participants in the control group had significantly lower customer satisfaction ratings ($M_{control}$ = 3.16) than those in all positive EAD conditions ($M_{au\text{-}freq}$= 5.40, *t* (155) = 5.97, *p* <.01, $M_{au\text{-}infreq}$ = 4.86, *t* (155) = 4.68, *p* <.01, $M_{inau\text{-}freq}$ = 4.34, *t* (155) = 3.25, *p* <.01, and $M_{inau\text{-}infreq}$= 4.00, *t* (155) = 2.20, *p* <0.05, respectively, one-tailed). In the high affective content encounter (flowershop) condition, planned contrasts showed that customer satisfaction was significantly higher in the authentic EAD conditions only ($M_{au\text{-}freq}$ = 5.46, $M_{au\text{-}infreq}$ = 5.12) relative to the control group ($M_{control}$ = 3.48, *t* (149) = 6.28, *p* <.01, and *t* (149) = 4.92, *p* <.01, respectively, one-tailed). In fact, inauthentic EAD produced significantly lower customer satisfaction ($M_{inau\text{-}freq}$ = 2.89, $M_{inau\text{-}infreq}$ = 2.49) than the control (no smiling) condition ($M_{control}$ = 3.48, *t* (149) = 2.12, *p* =.10, and *t* (149) = 2.94, *p* <.01). Therefore, H1 and H3 were supported.

For negative mood, in the low affective content encounter (bookstore) condition, Dunnett's tests indicated that participants in the control group experienced significantly higher negative mood ($M_{control}$ = 3.32) than those in the following positive EAD conditions: authentic-frequent ($M_{au\text{-}freq}$= 2.43, t (155) = 2.58, p <.05), authentic-infrequent ($M_{au\text{-}infreq}$ = 1.76, t (155) = 4.49, p <.01), and inauthentic-infrequent ($M_{inau\text{-}infreq}$ = 2.47, t (155) = 2.44, p <.05). The difference between customer negative mood in the control condition and in the inauthentic-frequent EAD condition was not significant ($M_{inau\text{-}infreq}$= 3.16, t (155) = .46, p, n.s.). In the high affective content encounter (flowershop) condition, planned contrasts showed that customer negative mood was significantly higher in the inauthentic EAD conditions only ($M_{au\text{-}freq}$ = 4.84, $M_{au\text{-}infreq}$ = 4.84) relative to the control group ($M_{control}$ = 3.48, t (149) = 3.52, p <.01, and t (149) = 3.52, p <.01, respectively). But authentic-infrequent EAD produced significantly lower negative mood ($M_{au\text{-}infreq}$ = 2.60) than the control (no smiling) condition ($M_{control}$ = 3.48, t (149) = 2.28, p <.05, and authentic-frequent EAD produced similar level of negative mood as the control condition ($M_{au\text{-}freq}$ = 2.77, $M_{control}$ = 3.48, t (149) = 1.83, p =.11). These results provide additional support for H1 and H3.

Structural Equation Tests of H2 and H4. The H2a, which posits that in the low affective content services, EAD frequency should have similar impact on customer responses than EAD authenticity, is supported. We free all the paths in the base model, and then constrain all paths originating from frequency and authenticity to be equal. This model has a significantly worse fit ($\Delta\chi^2$ = 25.12, Δdf = 4, p<.001), indicating that not all the paths originating from authenticity and frequency are equal. Based on modification indices, the very first constraints removed are the paths from authenticity and frequency

to negative mood. The χ^2 difference test for this model reveals that these paths are significantly different from each other ($\Delta\chi^2 = 19.62$, $\Delta df = 1$, $p < .001$). Follow-up tests indicate that other paths from authenticity and frequency to positive mood, interaction quality, and customer satisfaction are equal (see Table 4). Our final model (Figure 3, Panel A), with the paths from authenticity and frequency to negative mood freed, has a very good fit (χ^2 (df =55, n=129) = 77.816, RMSEA = .02, (.000-.079), NNFI = .986, CFI = .990). We therefore infer that, in low affective content service, EAD authenticity and frequency have similarly positive and significant impact on positive mood and interaction quality, while authenticity attenuates negative mood, frequency accentuates it.

———— Insert Figure 4 about here. ———-

Looking at Figure 2 and comparing negative mood across authentic and inauthentic EAD conditions, observe that as we go from control condition (no smile at all) to infrequent EAD (one to two smiles per minute), negative mood is attenuated by both authentic and inauthentic EADs but more so by the authentic EAD. Likewise, as we progress from infrequent EAD to frequent EAD (five to ten smiles per minute), authentic EAD contributes less to the worsening of negative mood compared to inauthentic EAD. Thus, what we infer from these data is this: in low affective content services, EADs at an infrequent level have an enhancing effect on customers' positive mood and service evaluation, also evoke less negative feelings. When EADs go up to a frequent level, we see a ceiling effect of enhancement (i.e., customer positive mood, interaction quality ratings and customer satisfaction level are no different than the infrequent condition), but the negative mood became significantly higher. The direct effects of EAD authenticity and frequency on customer satisfaction are not significant.

To test H4, that the EAD authenticity should play a stronger role in high affective content services than EAD frequency, we followed the same procedure as outlined above. Results of χ^2 difference tests are presented in Table 4. The final structural model has a very good fit (χ^2 (*df* =53, n=123) = 53.506, RMSEA = .000, (.000-.055), NNFI = 1.0, CFI = 1.0). The path estimates are presented in Figure 3, Panel B. Compared to EAD frequency, EAD authenticity has a significantly stronger impact on positive mood, negative mood, and interaction quality. The direct paths of EAD frequency and authenticity on customer satisfaction are not significant.

———— Insert Table 4 about here. ———-

Figure 2 reveals that EAD authenticity plays a dominant role in high affective content services. In both frequent and infrequent conditions, inauthentic EADs led to significantly higher negative mood than the control group, whereas authentic EADs evoke significantly lower negative mood than the control condition. Again, we observe the ceiling effect of EAD frequency (i.e., customer positive mood, negative mood, interaction quality ratings and customer satisfaction level in frequent and infrequent conditions are not significantly different). Thus, from these data we infer that positive EADs improve customer satisfaction only if they are genuine; fake smiles will boomerang (inauthentic EADs led to worse customer responses than control group).

Comparing EAD effects across low and high affective content services. To test the strength of frequency and authenticity effects across two types of services as proposed in H5 and H6, we conduct several multiple group comparisons (Little, 1997). The complete model is composed of a measurement model (the relationships between indicators and

latent constructs) and a structural model (the relationships between constructs). Before examining the relationships between high and low affective content service encounters, we establish the invariance of the measures. (Please see Appendix C for details.)

Based on the measure invariance test results, we compare EAD effects across the low and high affective content services. The fit indices for the final structural model (χ^2 (*df* =146, n=252) = 183.346, RMSEA= .041, (.007-.061), NNFI = .993, CFI=.995) suggest a very good model fit, with a RMSEA of <.05, indicating a 75% probability of a close model fit. A series of χ^2 difference tests (as shown in the Table C1 in Appendix C) reveal that the only paths that differ across the two service encounter conditions are those from authenticity to positive mood, negative mood, and interaction quality. The impact of authenticity on customers' positive mood is stronger in high affective content service than in low affective content service ($\Delta\chi^2 = 26.58$, $\Delta df=1$. $p < .001$). Similarly, EAD authenticity impacts customers' negative mood more strongly in high than in low affective services ($\Delta\chi^2 = 16.59$, $\Delta df = 1$. $p < .001$). Also, the effect of EAD authenticity on interaction quality is stronger in high than low affective content services ($\Delta\chi^2 = 3.99$, $\Delta df = 1$. $p = .046$). These results provide support for H6a, H6b, and H6c. Because all other paths are equal across the two groups, H5 is not supported.

Discussion of Study 1

Study 1 establishes that EAD effects are contingent on the affective content of the service. When affective content is low, positive EADs (regardless of authenticity and frequency levels) lead to more favorable outcomes than neutral (control group) EAD. Interestingly, when the affective content is high, inauthentic EADs (regardless of

frequency) boomerang, i.e., lead to even worse customer evaluations than the neutral (control group) EAD. These distinctive patterns appear to be driven by the differential effects of EAD frequency and EAD authenticity in different types of services. In low affective content service, both EAD frequency and authenticity have positive impact on customers' mood and their assessments of service transaction. However, in high affective content service, EAD authenticity plays a more important role than EAD frequency. Comparisons across these two types of services provide additional evidence that in a high affective content service, EAD authenticity effect becomes stronger.

Another noteworthy finding is that in low affective content service, frequent EADs led to higher negative mood. Customers likely are bothered or annoyed by too frequent EADs in a low affective content service. We surmise that this finding is because of the mismatch between EADs and customers' affective expectations. Customers often expect how to feel in a given situation, and too much smiling is not normally expected in low affective content services (Wirtz, Mattila, and Tan 2006). Employees' frequent display of positive emotions in low affective content services might make customers feel obliged to reciprocate (i.e., smile back) as a courtesy expression, causing reactance (Brehm and Brehm 1981) and the resulting negative mood.

In study 1, the employee-customer dyad comprised of Caucasians only. But what if the customers and the employees come from different cultural backgrounds? Could customers accurately judge the difference between authentic and inauthentic emotional expressions? In the next study, we address this issue.

Study 2: The Moderating Effect of Customer/Employee's Cultural Background

Method

Study 2 uses a 2 (customer: Caucasian versus Chinese) × 2 (authenticity: authentic versus inauthentic) × 2 (customer/employee group membership: in-group versus out-group) between-subjects design. We used the same service script and scenarios as those used in the high affective content encounter (flowershop) of Study 1, but with two adaptations. First, due to the inter-cultural nature of this experiment, we recruited a new team of actors (four Caucasian females and four Chinese females). The recruitment and training process was similar to the first study. After a series of auditions and rehearsals, four actors (two Caucasian females, two Chinese females) were chosen to play the customers and service employees in the final video. Second, since the EAD authenticity effect is the main focus of this study, we controlled EAD frequency to be comparable across the conditions (two-to-three smiles per minute). Undergraduate students (106 Caucasian and 81 Chinese) from a major Mid-western university participated in this experiment for course credit.

Results

Perceived EAD authenticity. Our key prediction is that the EAD authenticity effect will vary as a function of customer-employee group membership. When customers and employees are from the same cultural group, both Caucasian and Chinese customers should be able to identify the genuineness of their in-group service providers. But when the customers and employees have different cultural backgrounds, Chinese customers

(but not Caucasian customers) should be sensitive to the authenticity of their out-group service providers. Consistent with our prediction, an ANOVA on perceived EAD authenticity shows a significant three-way interaction (F (1, 179) = 17.92, p<0.01; See Figure 4). When the service employee is an in-group member, both Caucasian and Chinese can correctly interpret their in-group service providers' genuineness ($M_{auth\text{-}Caucasian}$ = 4.71, $M_{inauth\text{-}Caucasian}$ = 1.26, F (1,177) = 61.98, p <.01; $M_{auth\text{-}Chinese}$ = 4.26, $M_{inauth\text{-}Chinese}$ = 2.05, F (1,177) = 25.03, p <.01). But when the service employee is an out-group member, Chinese customers are sensitive to the authenticity of Caucasian employees' EAD: perceived authenticity ratings are lower in the inauthentic than authentic condition (M_{auth} = 4.08, M_{inauth} = 2.28, F (1,177) = 13.03, p <.05), but when Caucasian customers evaluate Chinese employees, the authenticity effect is not significant (M_{auth} = 3.53, M_{inauth} = 3.30, F <1, n.s.).

———— Insert Figure 5 about here. ———-

Customer satisfaction. We predicted that customer outcomes in the authentic EAD conditions would be more favorable than those in the inauthentic conditions when customers and employees are in-group members, or when the Chinese customers experience service from out-group Caucasian employees. But this EAD authenticity effect should not occur when Caucasian customers experience services from out-group Chinese employees. Like in Study 1, we created an index for each customer outcome variable—customer positive mood, negative mood, interaction quality, and customer satisfaction. The means and standard errors of these dependent variables are shown in Figure 6.

———— Insert Figure 6 about here. ———-

We submitted these indexes to a 2 (service affective content level) × 2 (EAD authenticity) × 2 (EAD frequency) analysis of variance and found similar results for these dependent variables. To avoid redundancies, we report only one ANOVA test results based on customer satisfaction index. The overall three-way interaction is significant (F (1,177) = 7.93, p <.01). When the customer and the employee are from the same cultural group, authentic EAD leads to significantly higher customer satisfaction ratings than inauthentic EAD in both Caucasian and Chinese conditions ($M_{auth\text{-}Caucasian}$ = 5.33, $M_{inauth\text{-}Caucasian}$ = 2.12, F (1,177) = 90.26, p<.01; $M_{auth\text{-}Chinese}$= 5.05, $M_{inauth\text{-}Chinese}$ = 2.72, F (1,177) = 32.21, p <.01). When customers and employees are from different cultural groups, Chinese employees' authentic EAD and inauthentic EAD produce similar customer satisfaction ratings among Caucasian customers (M_{auth} = 5.03, M_{inauth} = 4.51, F (1,177) = 2.09 n.s.). Caucasian employees' inauthentic EAD, however, results in significantly lower customer satisfaction ratings than authentic EAD among Chinese customers (M_{auth} = 5.17, M_{inauth}= 2.23, F (1,177) = 57.20, p <.01).

Discussion of Study 2

Study 2 demonstrates that the influence of EAD authenticity on customers' perception and evaluation of the service experience is moderated by customer/employee group membership. Operationally, we focus on the interpersonal interaction between customers and employees from either the Caucasian or the Chinese group. Since Chinese customers are more sensitive to authenticity cues of emotional expressions, they report significantly different ratings of authentic and inauthentic EAD in both in-group and out-

group interactions. When the service provider is an in-group member, Caucasian customers' evaluations of service experience also differ significantly in authentic and inauthentic EAD conditions. But when the service provider is an out-group Chinese employee, Caucasian customers seem to lack the cultural knowledge to interpret the service provider's genuineness.

Implications and Future Research Directions

Theoretical implications. There is near universal acceptance of EAD's efficacy, despite a tenuous research corpus and mixed empirical findings. From the results of the two studies reported here, it appears that the zeitgeist—always serve with a smile—is not entirely without merit.

Study 1 does show that in a low affective content service, where customers are primarily concerned about employees' competence and less about their emotional displays, positive EADs enhance customer satisfaction compared to neutral (control group) EADs, a result that is consistent with prior findings of studies that use low affective content services (e.g., Pugh 2001) and, not surprisingly, advocate "always serve with a smile." A word of caution though, is in order: EADs have a positive impact in significantly ameliorating negative mood as we move from control group (no smile) to infrequent smile condition (one to two smiles per minute). But once we move from the infrequent EAD to the frequent EAD (five to ten smiles per minute), the negative mood significantly rises—as we surmised, perhaps due to the reactance aroused in the customer. Both authentic and inauthentic EADs follow the same pattern, i.e., too much EAD will boomerang in a low affective content service.

In the high affective content service (gift buying) though, where EADs are an integral part of employee experience, EAD authenticity plays a dominant role. Only authentically positive EADs improve customer satisfaction; inauthentic positive EADs (regardless of frequency) lead to even lower customer satisfaction than neutral (control group) EAD (see Figure 2)—a finding consistent with the works of researchers such as Hennig-Thurau et al. (2006), who use a relatively high affective content.

Thus, the first theoretical implication of our effort is that service-type does emerge as a crucial moderator of EAD effects on customer-employee interactions. By differentiating between the low and high affective content services, we are able to reconcile the conflicting findings of the previous studies, some of which (e.g, Pugh 2001) proclaimed the superiority of the frequent EADs, while others championed the cause of authenticity (e.g., Hennig-Thurau et al. 2006) of EADs.

Second, the use of three process variables—customer positive mood, negative mood, and interaction quality—provides insights into the underlying processes at work. As Figure 4 (Panel A) shows, frequency and authenticity both have a direct effect on interaction quality and positive mood in low affective content services. Theoretically, frequent smiling might be inducing positive mood by customers' mimicry and synchronization of employees' positive emotional displays, i.e., primitive emotional contagion. Authenticity, though, could be operating via conscious emotional contagion, where genuine emotional displays of the employees might be prompting a comparison and convergence of the customers' feelings with that of the employees. Moreover, in the low affective content services, EAD frequency may be a double-edge sword, increasing

both customers' positive and negative mood. While customers do not expect frequent EADs, social norms oblige customers to reciprocate, contributing to their negative mood.

Although authenticity seems to matter even in low affective content services, but its impact is rather muted compared to in the high affective content services. [As expected, the direct paths from authenticity to positive mood, negative mood, and interaction quality are all stronger for high affective content service (Figure 4, Panel B), compared to low affective content service (Figure 4, Panel A)].

In sum, mood is the primary causal driver of various outcomes, which directly affects the more proximal interaction quality than the more distal customer satisfaction.

Third, positive and negative moods operate separately and simultaneously. It is important to measure them both in EAD research.

Finally, Study 2 provides evidence for the often-stated but never empirically tested assertion that customer/employee cultural group membership could influence their perception and evaluation of EADs. Indeed, when employees are in-group members, customers can accurately discern the authentic and inauthentic emotional expressions, assigning higher weightage to former. Note, however, that when employees are out-group members, the Caucasian customers give similar customer satisfaction ratings in the authentic and inauthentic conditions, but Chinese customers, sensitive to authenticity cues, give significantly lower ratings to inauthentic EADs. Customers are especially sensitive to employees' sincerity when the customer is Chinese, or when the employee and the customer are from the same cultural group (both Caucasian or Chinese).

Practical implications. In view of our finding, EAD requirements should not be categorical, as there are some contingencies; one that we study is the affective nature of the service. For a low affective content service, positive EADs, even contrived ones, are preferred over neutral EADs (no smile at all). This suggestion echoes Pugh's (2001, p. 1018) argument that "A professional act as they must; not as they feel." Beyond some level (in our study the threshold was one to two smiles per minute) though, EADs may annoy customers. Thus, even in low affective content services, moderation is advised. For a high affective content service, only authentically positive EADs can enhance customer outcomes. Inauthentic positive EADs will boomerang. A corollary of the above implication is that only in high affective content service, should the employees be trained to produce authentic emotions, as this is very difficult and expensive (Grandey 2003; Richard 2006).

Lastly, the firms operating in culturally diverse markets, must be cognizant of customers' varied receptivity and sensitivity to employees' affective displays. This was probably the reason why Wal-Mart's 3-meter (or 10 feet) greeting rule, which works in its U.S. market, did not work in Germany.

Limitations and Avenues for Future Research. First, although the use of real settings brings verisimilitude (bookstores, flowershops), both our studies are laboratory experiments. Consequently, their generalizability will have to be established with appropriate field testing. The flip side is that videotaped stimuli do afford greater control of confounding factors, while simultaneously enabling realistic and dynamic portrayal of customer-employee dyadic interactions (see Bateson and Hui 1992; Levesque and

McDougall 2000). We also limit our studies to two service categories and we keep the duration of the service transactions constant across conditions (for internal validity reasons), further limiting generalizability.

Further, we focus on EAD effects to high versus low affective content services. However, there might be other service characteristics (e.g., a brief service encounter versus an extended service encounter; one-time service encounter versus repeated encounters; a novel service encounter for which customers have little experience with the service versus a familiar service encounter for which customer have much knowledge about the service) that influence EAD effects on customer outcomes (Grandey et al. 2005).

In addition, to be consistent with recent EAD literature, we focus on smiles only in this study, but the frequency and authenticity information may also be revealed by other elements such as eye contact and vocal tunes. Future research may focus on other nonverbal behaviors to study their roles in emotion communications during customer interactions.

Finally, in testing in-group / out-group differences, we chose ethic groups with significant cultural differences. Further research may consider dimensions of customer/employee group membership, such as age or social status, that might be relevant in service content. For instance, when customers and employees are from the same age groups, customers may share similar display rules and be more sensitive to employees' emotional display.

REFERENCES

Abelson, Robert P., Donald Kinder, Mark D. Peters, and Susan T. Fiske (1982), "Affective and Semantic Components in Political Person Perception," *Journal of Personality and Social Psychology*, 42 (April), 619-30.

Adelmann, Pamela K. and R. B. Zajonc (1989), "Facial Efference and the Experience of Emotion," *Annual Review of Psychology*, 40, 249–80.

Anderson, James C. and David W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological Bulletin*, 103(3), 411-23.

Anthony, Tara, Carolyn Copper, Brian Mullen (1992), "Cross-Racial Facial Identification: A Social Cognitive Integration," *Personality and Social Psychology Bulletin, 18*, 296–301.

Arnould, Eric J. and Linda L. Price (1993), "River Magic: Extraordinary Experience and the Extended Service Encounter," *Journal of Consumer Research, 20*(1), 24-45.

Ashforth, Blake E. and Ronald H. Humphrey (1993), "Emotional Labor in Service Roles: The Influence of Identity," *The Academy of Management Review*, 18(1), 88-115.

ASTD (2009). The American Society for Training and Development (ASTD) State of the Industry Annual report. Retrieved from http://www.astd.org/content/research/stateOfIndustry.htm

Bagozzi, Richard P. and Youjae Yi (1988), “On the Evaluation of Structural Equation Models,” *Journal of the Academy of Marketing Science*, 16 (Spring), 74-94.

Barger, Patricia B. and Alicia A. Grandey (2006), "Service with a smile" and encounter satisfaction: Emotional contagion and appraisal mechanisms. Academy of Management Journal, 49, 1229–1238.

Barsade, Sigal G. (2002), “The Ripple Effect: Emotional Contagion and Its Influence on Group Behavior,” *Administrative Science Quarterly*, 47 (December), 644–75.

Bartel, Caroline A. and Richard Saavedra (2000), “The Collective Construction of Work Group Moods,” *Administrative Science Quarterly*, 45 (June), 197–231.

Bateson, John E. G. and Michael K. Hui (1992), "The Ecological Validity of Photographic Slides and Videotapes in Simulating the Service Setting," *Journal of Consumer Research*, 19 (September), 271-81.

Bitner, Mary Jo (1990), “Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses,” *Journal of Marketing*, 54 (April), 69–82.

Bolino, Mark C. (1999), “Citizenship and Impression Management: Good Soldiers or Good Actors?” *The Academy of Management Review*, *24*(1), 82-98.

Brady, Michael K. and J. Joseph Cronin Jr. (2001), "Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach," *Journal of Marketing*, *65*(3), 34-49.

Brehm, Sharon S. and Jack Brehm (1981), *Psychological Reactance: A Theory of Freedom and Control*, New York: Academic Press.

Brown, Carolyn S. and Beth Sulzer-Azaroff (1994), "An Assessment of the Relationship between Customer Satisfaction and Service Friendliness," *Journal of Organizational Behavior Management*, 14(2), 55-76.

Cacioppo, John T. and Gary G. Berntson (1994), "Relationship Between Attitudes and Evaluative Space: A Critical Review, With Emphasis on the Separability of Positive and Negative Substrates," *Psychological Bulletin*, 115 (3), 401-23.

Chartrand, Tanya. L. and John A. Bargh (1999), "The Chameleon Effect: The Perception-Behavior Link and Social Interaction," *Journal of Personality and Social Psychology*, 76 (6), 893-910.

Clark, Margaret S. and Carolyn Taraban (1991), "Reactions to and Willingness to Express Emotion in Two Types of Relationships," *Journal of Experimental Social Psychology*, 27 (4), 324–36.

Costa, Paul T. and Robert R. McCrae (1980), "Influence of Extraversion and Neuroticism on Subjective Well-Being: Happy and Unhappy People," *Journal of Personality & Social Psychology*, 38, 668-78.

Diefendorff, James M.and Erin M. Richard (2003), "Antecedents and Consequences of Emotional Display Rule Perceptions," *Journal of Applied Psychology*, 88 (2), 284-94.

Ekman, Paul (1992), "Facial Expressions of Emotions: New Findings, New Questions," *Psychological Science*, 3 (January), 34–38.

———, Richard J. Davidson, and Wallace V. Friesen (1990), “The Duchenne Smile: Emotional Expression and Brain Psychology II,” *Journal of Personality and Social Psychology*, 58 (2), 342–58.

——— and Wallace V. Friesen (1982), “Felt, False, and Miserable Smiles,” *Journal of Nonverbal Behavior*, 6 (4), 238–52.

Ekman, Paul; Wallace V. Friesen, Maureen O'Sullivan, Anthony Chan, Irene Diacoyanni-Tarlatzis, Karl Heider, Rainer Krause, William Ayhan LeCompte, Tom Pitcairn, Pio E. Ricci-Bitti, Klaus Scherer, Masatoshi Tomita, and Athanase Tzavaras (1987), “Universals and Cultural Differences in the Judgments of Facial Expressions of Emotion.” *Journal of Personality and. Social Psychology*, 53, 712-17.

Elfenbein, Hilary A. and Nalini Ambady (2002), "On the Universality and Cultural Specificity of Emotion Recognition: A Meta-Analysis," *Psychological Bulletin, 128*(2), 203-35.

——— and ——— (2003), “Universals and Cultural Differences in Recognizing Emotions,” *Psychological Science*, 12(5), 159-64.

Fridlund, Alan J. (1994), *Human Facial Expression: An Evolutionary View*, San Diego. CA: Academic Press.

George, Jennifer M. (1998), “Salesperson Mood at Work: Implications for Helping Customers,” *Journal of Personal Selling & Sales Management*, 18, 23-30.

Gountas, Sandra, Michael T. Ewing, John I. Gountas (2007), "Testing Airline Passengers' Responses to Flight Attendants' Expressive Displays: The Effects of Positive Affect," *Journal of Business Research*, 60, 81-83.

Grandey, Alicia A. (2003), "When 'The Show Must Go On': Surface and Deep Acting as Determinants of Emotional Exhaustion and Peer-Rated Service Delivery," *Academy of Management Journal*, 46 (February), 86–96.

——— and Analea L. Brauburger (2002), "The Emotion Regulation Behind the Customer Service Smile," in *Emotions in The Workplace: Understanding the Structure and Role of Emotions in Organizational Behavior*, Robert G. Lord, Richard J. Klimoski, and Ruth Kanfer, eds. San Francisco, CA: Jossey-Bass, 260-94.

———, Glenda M. Fisk, Anna S. Mattila, Karen J. Jansen, and Lori A. Sideman (2005), "Is 'Service With a Smile' Enough? Authenticity of Positive Displays During Service Encounters," *Organizational Behavior and Human Decision Processes*, 96 (January), 38–55.

Gremler, Dwayne D. and Kevin P. Gwinner (2008), "Rapport-Building Behaviors Used by Retail Employees," *Journal of Retailing*, 84 (3), 308-24.

Gump, Brooks B. and James A. Kulik (1997), "Stress, affiliation, and emotional contagion," *Journal of Personality and Social Psychology*, *72*(2), 305-19.

Hatfield, Elaine, John T. Cacioppo, and Richard L. Rapson (1992), "Primitive Emotional Contagion," *Review of Personality and Social Psychology*, 14, 151-77.

———, ———, and ——— (1994), *Emotional Contagion*. Cambridge, UK: Cambridge University Press.

———, Richard L. Rapson, and Yen-Chi L. Le (2009), "Primitive Emotional Contagion: Recent Research," in *The Social Neuroscience of Empathy*, Jean Decety and William Ickes, eds. Boston, MA: MIT Press, 19-30.

Heine, Steven J., Darrin R. Lehman, Hazel Rose Markus, and Shinobu Kitayama (1999), "Is There A Universal Need for Positive Self-Regard?" *Psychological Review, 106*, 766–794.

Hennig-Thurau, Thorsten, Markus Groth, Michael Paul, and Dwayne D. Gremler (2006), "Are All Smiles Created Equal? How Emotional Contagion and Emotional Labor Affect Service Relationships," *Journal of Marketing*, 70 (July), 58–73.

——— and Alexander Klee (1997), "The Impact of Customer Satisfaction and Relationship Quality on Customer Retention: A Critical Reassessment and Model Development," *Psychology and Marketing*, 14 (8), 737–64.

Hochschild, Arlie R. (1983), *The Managed Heart: Commercialization of Human Feeling*. Berkeley: University of California Press.

Kruml, Susan M. and Deanna Geddes (2000), "Exploring the Dimensions of Emotional Labor: The Heart of Hochschild's Work," *Management Communication Quarterly*, 14 (1), 8–49.

Laird, James D. and Charles Bresler (1992), "The Process of Emotional Experience: A Self-Perception Theory," in *Emotion. Review of Personality and Social Psychology*, No. 13, Margaret S. Clark, ed. Thousand Oaks, CA. Sage Publications, 213-34.

Lee, Sau-Lai, Chi-Yue Chiu, and Tsz-Kit Chan (2005), “Some Boundary Conditions of the Expressor Culture Effect in Emotion Recognition: Evidence from Hong Kong Chinese Perceivers,” *Asian Journal of Social Psychology, 8*(3), 224-43.

Levesque, Terrence J. and Gordon H.G. McDougall (2000), “Service Problems and Recovery Strategies: An Experiment,” *Canadian Journal of Administrative Sciences*, 17(1), 20–37.

Liu, James H., Kaori Karasawa, and Bernard Weiner (1992), “Inferences about the Causes of Positive and Negative Emotions,” *Personality and Social Psychology Bulletin*, 18, 603-15.

Luong, Alexandra (2005), "Affective Service Display and Customer Mood", *Journal of Service Research*, 8(2), 117-30.

Madden, Thomas J., Chris T. Allen, and Jacquelyn L. Twible (1988), “Attitude Toward the Ad: An Assessment of Diverse Measurement Indices Under Different Processing ‘Sets’,” *Journal of Marketing Research*, 25 (August), 242-52.

Manstead, Antony S. R., Agneta H. Fischer, and Esther B. Jakobs (1999), “The Social and Emotional Functions of Facial Displays,” in *The social context of nonverbal behavior*: *Studies in emotion and social interaction*, Pierre Philippot, Robert S. Feldman, and Erik J. Coats, eds. New York: Cambridge, 287-313.

Markham, Rosly and Lei Wang (1996), “Recognition of emotion by Chinese and Australian children,” *Journal of Cross-Cultural Psychology*, 27, 616–43.

Markus, Hazel Rose and Shinobu Kitayama (1991), “Culture and the Self: Implications for Cognition, Emotion, and Motivation,” *Psychological Review*, 98, 224-53.

Marsh, Abigail A., Hillary Anger Elfenbein, and Nalini Ambady (2003), “Nonverbal ‘Accents’: Cultural Differences in Facial Expressions of Emotion,” *Psychological Science, 14*(4), 373-76.

Matsumoto, David and Paul Ekman (1989), “American-Japanese Cultural Differences in Intensity Ratings of Facial Expressions of Emotion,” *Motivation and Emotion, 13*(2), 143-57.

Mattila, Anna S. and Cathy A. Enz (2002), “The Role of Emotions in Service Encounters,” *Journal of Services Research*, 4, 268-277

Mehrabian, Albert. (1972), “*Nonverbal Communication*,” in *Nebraska Symposium on Motivation 1971*, James K. Cole, ed. Lincoln: University of Nebraska Press, 107-161.

Menon, Kalyani and Laurette Dubé (2000), "Engineering Effective Interpersonal Responses to Customer Emotions for Higher Satisfaction", *Journal of Retailing*, 76 (3), 285 - 307.

Mesquita, Batja and Nico H. Frijda (1992), “Cultural Variations in Emotions: A Review,” *Psychological Bulletin, 112*, 179–204.

Oliver, Richard L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*. New York: McGraw-Hill.

Organ, Dennis W. (1997), “Organizational Citizenship Behavior: It’s Construct Clean-Up Time,” *Human Performance*, 10(2), 85–97.

Pantic, Maja and Leon J.M. Rothkrantz (2000), “Automatic Analysis of Facial Expressions: The State of the Art,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 22(12), 1424–46.

Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1985), “A Conceptual Model of Service Quality and Its Implications for Future Research,” *Journal of Marketing*, 49 (Fall), 41–50.

Price, Linda L., Eric J. Arnould and Sheila L. Deibler (1994), “Consumers’ emotional responses to service encounters: the influence of the service provider,” *International Journal of Service Industry Management*, *6*(3), 34-63.

———, ———, and Patrick Tierney (1995), “Going to Extremes: Managing Service Encounters and Assessing Provider Performance,” *The Journal of Marketing*, *59*(2), 83-97.

Pugh, S. Douglas (2001), “Service with a Smile: Emotional Contagion in the Service Encounter,” *Academy of Management Journal*, 44 (October), 1018–1027.

Rafaeli, Anat and Robert I. Sutton (1987), “Expression of Emotion as Part of the Work Role,” *Academy of Management Review*, 12 (January), 23–37.

Richard, Erin Michele (2006), “Applying Appraisal Theories of Emotion to the Concept of Emotional Labor,” *Dissertation Abstract International*, 67(2), (UMI No. AAT 3208194). Retrieved May 4, 2010, from Dissertation and Theses database.

Russell, James A (1994), “Is There Universal Recognition Of Emotion From Facial Expressions? A Review of Cross-Cultural Studies,” *Psychological Bulletin*, 115, 102–41.

———, Jo-Anne Bachorowski, and Jos´e-Miguel Fernandez-Dols (2003), “Facial and Vocal Expressions of Emotion,” *Annual Review of Psychology*, 54 329-350.

——— and Sulamith A. Yik (1996), “Emotion among the Chinese,” in *The Handbook of Chinese Psychology*, Michael H. Bond, ed. Hong Kong, China: Oxford University Press, 166-188.

Schachter, Stanley and Jerome Singer (1962), “Cognitive, social, and physiological determinants of emotional state,” *Psychological Review*, 69(5), 379-99.

Scherer, Klaus R., Rainer Banse, and Harald G. Wallbott (2001), “Emotion Inferences from Vocal Expression Correlate Across Languages and Cultures,” *Journal of Cross-Cultural Psychology*, 32, 76–92.

Singh, Jagdip, Jerry R. Goolsby, and Gary K. Rhoades (1994), “Behavioral and Psychological Consequences of Boundary Spanning Burnout for Customer Service Representatives,” *Journal of Marketing Research***,** 31 (November), 558-69.

Small, Deborah A. and Nicole M. Verrochi (2009), “The Face of Need: Facial Emotion Expression on Charity Advertisements,” *Journal of Marketing Research, 46*(6), 777-87.

Sullins, Ellen S. (1991), “Emotional Contagion Revisited: Effects of Social Comparison and Expressive Style on Mood Convergence,” *Personality and Social Psychology*

Bulletin, 17(2), 166-74.

Surakka, Veikko and Jari K. Hietanen (1998), "Facial and Emotional Reactions to Duchenne and Non-Duchenne Smiles," *International Journal of Psychophysiology*. *29*(1), 23-33.

Sutton, Robert I. and Anat Rafaeli (1988), "Untangling the Relationship Between Displayed Emotions and Organizational Sales: The Case of Convenience Stores," *Academy of Management Journal*, 31 (September), 461–87.

Tajfel, Henri and Turner, John C. (1979), "An Integrative Theory Of Intergroup Conflict," in *The Social Psychology Of Intergroup Relations,* William G. Austin and Stephen Worchel Eds. Monterey, CA: Brooks/Cole, 33-48.

Tsai, Wei-Chi (2001), "Determinants and Consequences of Employee Displayed Positive Emotions," *Journal of Management*, 27 (4), 497–512.

——— and Yin-Mei Huang (2002), "Mechanisms Linking Employee Affective Delivery and Customer Behavioral Intentions," *Journal of Applied Psychology*, 87 (October), 1001–1008.

Trougakos, John P., Daniel J. Beal, Stephen G. Green, Howard M. Weiss (2008), "Making the Break Count: An Episodic Examination of Recovery Activities, Emotional Experiences, and Positive Affective Displays," *Academy of Management Journal*, 51(1), 131-46.

Velten, Emmett Jr. (1968), "A Laboratory Task for Induction of Mood States," *Behavior Research and Therapy*, 6, 473-82.

Watson, David, Lee A. Clark, and Auke Tellegen (1988), "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales," *Journal of Personality & Social Psychology*, 54, 1063-70.

Westbrook, Robert A. and Richard L. Oliver (1991), "The Dimensionality of Consumption Emotion Patterns and Consumer Satisfaction," *The Journal of Consumer Research, 18*(1), 84-91.

Wirtz, Jochen, Anna S. Mattila, and Rachel L.P. Tan (2007), "The Role of Affective Expectations in Influencing Consumers' Satisfaction Evaluations and In-store Behaviors," *International Journal of Service Industry Management*, 18(1), 6-18.

Wylie, Douglas R. and Melvyn A. Goodales (1988), "Left-sided Oral Asymmetries in Spontaneous but Not Posed Smiles," *Neuropsychologia*, 26, 823-32.

Yuki, Masaki, William W. Maddux, and Takahiko Masuda (2007), "Are the Windows to the Soul the Same in the East and West? Cultural Differences in Using the Eyes and Mouth as Cues to Recognize Emotions in Japan and the United States," *Journal of Experimental Social Psychology*, 43, 303-11.

CHAPTER THREE: ESSAY TWO

Excitement or Peacefulness?

Consumers' Valuation of Distinct Positive Emotions

Consider the frequently aired commercial *California, Find Yourself Here*. A trip to California can be depicted as an exciting, action-packed adventure or a chance to enjoy the tranquility and peacefulness of the beach at sunset, massage tables, and wine tasting. Marketers often use different types of positive emotional appeals to engage their audience. But do people value or pursue these emotional appeals in the same way? How do these positive emotional feelings create resonance in their customers? These are very relevant questions, as emphasized by Griskevicius, Shiota and Nowlis (2010, p.1): "An accurate understanding of the implications of specific positive emotions is especially important for consumer research, because marketers often go to great lengths to engineer positive environment for consumers."

Empirical research on consumers' valuation of discrete positive emotions does not echo their popularity in marketing practice. Recent research on discrete emotions has documented that even emotions of the same valence may influence consumer decision making in different ways. Within this stream of research, contrasting effects of different negative emotions have proven fruitful (e.g., fear versus anger by Lerner and Keltner 2001; sadness versus anxiety by Raghunathan and Pham 1999). However, attempts to

differentiate emotions within the positive realm remain a “research lacuna” (Lerner, Han, Keltner, 2007; Cavanaugh, Bettman, Luce, Payne 2007).

We attempt to extend this line of research by focusing on emotions that share the same positive valence but differ along the activation dimension (Barret and Russell 1999; Larsen and Diener 1992)—high arousal positive (HAP) emotions (e.g., excited, enthusiastic, and energetic) and low arousal positive (LAP) emotions (e.g., peaceful, relaxed, and serene). Recent research has shown that HAP and LAP emotions have vastly different impact on consumer judgment and behavior in the consumer context (Chitturi, Raghunathan and Mahajan 2007; 2008). Our research seeks to extend current understanding of HAP and LAP emotions by answering the following questions: (1) Why do consumers perceive HAP and LAP emotions to be differentially valuable or desirable? (2) What factors moderate consumers’ valuation of different positive emotions?

We tackle these research questions by examining the interplay between motivation and emotions. Our central thesis is that people’s valuations of HAP and LAP emotions are contingent on the compatibility between these emotions and their personal goals. We integrate two streams of motivational research—regulatory focus theory (Higgins 1997) and the primary/secondary control framework (Rothbaum, Weisz and Snyder 1982) to simultaneously test the potential mediating role of two pairs of strategically selected goals—promotion versus prevention and influence versus adjustment goals. Moreover, we propose two moderating factors that may influence people’s chronic motivational tendencies—cultural background and age. As such, this research attempts to show that the desirability of different positive emotions varies across

cultures and changes over one's life span, with shifts in personal goals as the underlying mechanism.

Conceptual Background

Compatibility between Personal Goals and Distinct Positive Emotions

Promotion and prevention goals[2]. Psychologists have noted a potential tension between a pair of human goals: to achieve ideals and to prevent failures (Bosmans and Baumgartner 2005). The class of promotion goals has been alternatively investigated in terms of approach goals (Carver and Scheier 1990), appetitive motivation (Gray 1990), or promotion focus (Higgins 1997). Correspondingly, the class of prevention goals has been discussed in terms of avoidance goals, aversive motivations, or prevention focus. People may hold or pursue both goals on a regular basis, but one goal may dominate over the other because of personality traits or situational factors (Avnet and Higgins 2006; Higgins 1998).

These promotion and prevention goals have been linked to distinct emotions as a result of goal success or goal failure. For example, regulatory focus theory (e.g., Higgins 1997, 2001; Higgins, Shah and Friedman 1997) predicts that if successful in pursuit of a promotion goal, arousal-oriented positive emotions (e.g., excited, elated, and delighted) will be evoked, whereas the fulfillment of a prevention goal will lead to quiescence-

[2] The primary focus of this research is the aversive/appetitive motivations and approach/avoidance regulatory systems in which one wishes to approach success and inhibit failures. The distinction between approach and avoidance within each regulatory orientation is not the major concern here.

oriented emotions (e.g., relaxed, calm, peaceful). Building on this literature, Chitturi, Raghunathan and Mahajan (2007, 2008) provide converging evidence about the link between regulatory focus and discrete positive emotions. In the context of product consumption, their research shows that pursuit and fulfillment of a promotion goal (e.g., a positive consumption experience with hedonic benefits or the act of pursuing hedonic benefits for losses on functionality benefits) leads to consumers' feelings of excitement and cheerfulness, whereas fulfillment of a prevention goal (e.g., a positive consumption experience with utilitarian benefits or the act of trading functionality benefits for hedonic gains) leads to consumers' feelings of security and confidence.

The link between promotion and prevention goals has also been discussed in terms of the type of anticipated emotions associated with a salient regulatory focus. Building on Higgin's (2000) notion of regulatory fit, Leone, Perugini, and Bagozzi (2005) propose that promotion-focused individuals evaluate an act more favorably if successfully performing the act may induce satisfaction and elation, since these emotions align with their motivation for approaching positive outcomes; prevention-focused individuals give more favorable evaluations to an act that may lead to relaxation and relief, because such emotions are more relevant to their motivation for avoiding negative outcomes.

Influence and adjustment goals. Research on individuals' influence and adjustment goals is based on two types of human motives: to efficaciously act on the external social and physical environment so that it fits with personal needs and goals (primary control or influence goal) or to flexibly adjust inner emotion, motivation and

mental representations to fit in with one's circumstances (secondary control or adjustment goal) (Morling and Evered 2006; Morling, Kitayama and Miyamoto 2002; Rothbaum et al. 1982).

Research suggests that people with influence or adjustment goals value and pursue distinctive types of positive emotions (for more discussion, see Tsai, Knutson, and Fung 2006; Tsai, Miao, Seppala, Fung, and Yeung 2007). People with the influence goal need to assert themselves, establish their special preferences and unique needs, and overcome obstacles to fit their personal preferences and goals. These actions (e.g., appearing confident, being persistent in goal striving, investing time and effort to change others' thoughts and behaviors) may lead to increases in physiological arousal (Mehrabian and Russell 1974; Obrist 1981; Schupp, Cuthbert, Bradley, Birbaumer, and Lang, 1997). As such, the salient influence goal leads to increased preference or desirability of HAP emotions over LAP emotions. In contrast, people with the adjustment goal want to suppress themselves, accept reality, adapt to the external circumstances, and wait for others to give directions. These attempts to resist actions may involve decreases in physiological arousal (e.g., Obrist 1981; Schupp et al. 1997). Whereas individuals in a highly aroused state tend to omit the details and only focus on the gist (Gasper and Clore 2002; Huber, Beckman, and Hermann 2004), lower arousal states may broaden individuals' attention to external circumstances and facilitate the process of adaption (Libby, Lacey, and Lacey 1973; Schupp et al. 1997). Thus, when the adjustment goal is salient, LAP emotions should be more compatible with people's motivational inclinations and be preferred over HAP emotions.

Culture-Linked Differences in Motivations and Affect Valuations

The association between dominant self views in different cultures and different types of self-regulatory goals has been well-established (Hofstede 2001; Markus and Kitayama 1994). In the western culture (North America and large parts of Europe), people have the need and ability to distinguish themselves from others, and many times, people are motivated by the belief that they are somewhat better than their peers (Harter 1990). That is, in order to feel good, people need to think that they are different from others in a positive sense. Thus, for Westerners, the independent view of the self fosters their pursuit of autonomy and promotion goals (e.g., Aaker and Lee 2001; Lee, Aaker, and Gardner 2000). In contrast, in the eastern culture (China, Japan, and other Asian groups), people have the core psychological tendency to be associated with others. Positive feelings are not linked with seeing oneself as unique. Instead, good feelings may derive from good social relationships (i.e., fitting-in, belonging, maintaining harmony in relationships, occupying one's proper place, engaging in appropriate action). Easterners are more concerned about fulfilling their obligations and responsibilities to others and preventing mistakes that may separate them from others. Thus, for Easterners, the interdependent view of the self highlights the importance of belonging and prevention goals.

Moreover, the eastern and the western cultures also put disproportionate emphasis on influence and adjustment processes, leading to differences in Easterners' and Westerners' motivational inclinations. For example, the religious traditions in the western culture have emphasized messianic "good works" that are inherently controlling

(Weisz, Rothbaum, and Blackburn 1984). Moreover, with respect to regular social practices, Morling et al. (2002) show that controlling situations are more common in the United States and European Americans derive feelings of efficacy from events involving personal influence. That is, the western culture encourages a sense of being "in control," and individuals are motivated by an "influence" goal to shape the external circumstances or change others to accommodate their inner desires (Heine 2001; Iyengar and Lepper 1999). In contrast, the religious traditions in the eastern culture emphasize agency that resides in spiritual and environmental forces (Weisz et al. 1984). Also, adjusting situations are more common in the eastern cultures (e.g., Japan), and events involving personal adjustment evoke more feelings of relatedness (Morling et al. 2002). Therefore, the eastern culture encourages a sense of "harmony" and individuals are motivated by "adjustment" goal to adapt ones' own behaviors and desires and fit into the social environment (Heine 2001; Iyengar and Lepper 1999).

To sum up, cultural frameworks shape individuals' motivational inclinations and consequently, their preferences and valuation of different positive emotions. Westerners' pursuit of promotion and influence goals leads to their preference for HAP emotions, while Easterners' pursuit of prevention and adjustment goals leads to their preference for LAP emotions.

H1: Westerners value HAP emotions more and LAP emotions less than Easterners.

H2: The culture-linked differences in affect valuation are mediated by two motivational mechanisms: emphasis on promotion versus prevention goals, and emphasis on influence versus adjustment goals.

Age-Linked Differences in Motivations and Affect Valuations

Studies on adult development find that different age groups prioritize different types of goals. Whereas younger adults are more focused on improvement and achievement, older adults are more concerned about maintenance or protection from losses. When asked about their future, younger adults focus on more desirable outcomes than their current states (Ryff 1989, 1991). They expect strong gains and improvements in a variety of dimensions (e.g., education, career, family building and finances) and report less concern about loss-avoiding goals than older adults (Dittman-Kohli and Westerhof 1997; Heckhausen, Dixon, and Baltes 1989; Ogilvie, Rose, and Heppen 2001). In contrast, older adults report more negative expectations about future subjective well-being (Heckhausen et al. 1989). They are more likely to aim at preventing losses and maintaining current levels of functioning, even though gains and losses happen at all life-stages (Baltes 1987; Dittman-Kohli and Westerhof 1997; Lockwood, Chasteen, and Wong 2005).

In addition, by nature, people in young adulthood have more favorable opportunities and broader domains for development (e.g., search for new and different experiences to expand their horizons and achieve new goals). With advancing age, individuals tend to have fewer opportunities and more constraints for development (Brandstädter and Renner 1990). Accordingly, compared to younger adults, older people

show stronger orientation toward prevention or protection goals, and weaker orientation toward promotion or achievement goals.

Age-related motivational shifts may also be reflected by people's emphasis on influence versus adjustment goals. Life-span research has consistently shown that older adults, compared to their younger counterparts, are more likely to endorse their adjustment goal (Heckhausen, Wrosch, and Schulz 2010; Wrosch, Heckhausen, and Lachman 2000). For example, as people age, they are more likely to use compensatory control strategies, such as positive reappraisal, downward comparison, or biased attribution. Similarly, Brandstädter's research indicates that older people were more likely to use accommodative processes—which target at one's inner world and change one's personal goals, values and aspirations so that they can better accommodate the outer world's demands, instead of assimilative processes—which aim at transforming external circumstances or overcoming outer constraints to live in accordance with individuals' personal preferences, values, and developmental goals (Brandstädter and Baltes-Götz 1990; Brandstädter and Greve 1994; Brandstädter and Renner 1990; Brandstädter, Wentura, and Greve, 1993).

What accounts for the motivational shift from the influence goal for the young to the adjustment goal for the elderly? One possible explanation is based on loss-based theories (e.g., selection, optimization and compensation (SOC) theory, Baltes and Baltes 1990; Baltes and Freund 2000) which predict that older people have fewer opportunities to expand their horizons, more barriers in social network, and increasing difficulties in maintaining their health. Recognizing these limits and losses, older people are more

likely to make adjustments, suppress their internal demands, and select only age-appropriate goals. The elderly strategically allocate their resources or efforts on selected domains and try to employ different means to achieve the same goal. Another explanation is the Socioemotional Selectivity Theory (Carstensen 1995; Carstensen, Isaacowitz and Charles 1999), which predicts that older adults' perception of the finiteness of life makes them place more emphasis on present feelings or emotional satisfaction. Thus, they flexibly adjust their inner goals and cognitions as means to maintain emotional wellbeing and self-esteem from failures or losses.

Age-related differences in influence and adjustment goals further impact desired affective states (Tsai et al. 2007). Specifically, younger adults, who aim to influence external factors, always need to take action (e.g., express an opinion, learn more skills, change the status quo, etc.), leading to higher physiological arousal (Mehrabian and Russell 1974). Older adults, who aim to adjust themselves and fit into external requests and preferences, always need to suspend actions and maintain the status quo, leading to decreases in physiological arousal (Obrist 1981; Schupp et al. 1997; Tomaka, Blascovich, Kelsey, and Leitten, 1993). Based on the forgoing logic, younger adults with promotion and influence goals desire high-arousal states, whereas older adults with prevention and adjustment goals desire low-arousal states.

H3: Younger adults value HAP emotions more and LAP emotions less than older adults.

H4: The age-linked differences in affect valuation are mediated by two motivational mechanisms: emphasis on promotion versus prevention goals, and emphasis on influence versus adjustment goals.

To test these hypotheses, three studies were conducted. The first study attempts to provide initial evidence that Easterners' and Westerners' have different chronic motivational tendencies, leading to their differential valuation of HAP and LAP emotions. The second study intends to test the stability of Study 1's results using refined scales. The second study also examines whether consumers' preferences for different positive emotions impact their downstream judgment and behavior. The third study expands our investigation to age-linked differences in motivations and affects valuation.

Study 1

In the first study, we test the hypothesis that people in different cultures value different types of positive emotions. These culture-linked differences in affect valuation may be mediated by Easterners' and Westerners' distinctive motivational inclinations. Unlike Tsai and her colleagues' pioneering research on cultural-linked differences in affect valuation (Tsai et al. 2006, Tsai et al. 2007), this study simultaneously tests two motivational mechanisms—promotion versus prevention goals and influence versus adjustment goals—that may potentially drive this cultural effect on affect valuation.

Method

Participants. Participants were 121 Caucasian (mean age= 20.30, SD= 1.26, age range = 18 to 24, 60 females and 61 males) and 123 Chinese young adults (mean

age=21.64, SD=1.24, age range = 19 to 25, 58females and 65 males). Caucasian participants were undergraduate students from a large Midwest university in the U.S. and Chinese participants were undergraduate students from an institution in northeast China. Participants received course credit for taking part in the study. Therefore, participants were comparable in terms of their life stage, occupation, and social status. Three participants (two Caucasian and one Chinese) were excluded from the analyses because they did not follow the experimental procedure or were interrupted during the experimental sessions. In total, 119 Caucasian and 122 Chinese participants were included in the analyses.

Translation of instruments. Emotion measures were adopted from the English and Simple Chinese versions of Affect Valuation Index (Tsai et al. 2006). All other instruments were translated into Chinese and back-translated into English by two bilingual Chinese-English speakers (one was currently living in the U.S., and the other was currently living in China) (Brislin 1970). Disagreements were resolved by a third translator.

Measure equivalence. To adjust for culture-linked differences in response styles and to establish cross-cultural equivalence of measures, we conducted a series of tests to examine the hierarchical levels of measure invariance across the cultural groups (Meredith, 1993). The configural invariance analysis revealed that loading patterns for all of the instruments were identical across the groups. However, the intercepts were not invariant across the groups. Consistent with prior research (Tsai et al. 2007), the construct interrelationships are structurally equivalent across groups, but they should not be

compared at the mean level. Based on these results, we used the within-subject standardization (ipsatization) to adjust for potential response biases (e.g., Fischer 2004; Hicks 1979; Lee and Ashton 2009; Tsai et al. 2006, 2007). Specifically, we adopted the ipsatization procedure from Tsai et al. (2007). That is, we calculated the overall mean and overall standard deviation of each participant's responses to all the items of the same scale (e.g., BIS/BAS scale). We then subtracted the overall mean from this individual's raw score for each item (e.g., BIS1) and then divided the difference by the overall standard deviation. The resulting score is the ipsatized score for each item. We conducted analyses using both ipsatized and raw scores, leading to similar patterns of results. In this paper, to maintain compatibility with the prior research (e.g., Tsai et al. 2006) and for ease of interpretation, we report findings from analyses with raw scores for all measures. Analysis results based on ipsatized scores are available upon request.

Pretest. To assess participants' cultural orientation and assure the representativeness of the samples from each culture, a subset of participants from the main experiment rated themselves on the General Ethnicity Questionnaire (Tsai, Ying and Lee 2000). This 38-item questionnaire measures participants' cultural orientation from different aspects, such as social affiliation, activities, attitudes, food and language use. As expected, the Caucasian and Chinese groups differ significantly on these cultural orientation dimensions and are representative samples from each population.

Procedure. As a cover story, participants were told that researchers were conducting a study to create a database of typical undergraduate student profiles. Participants were first asked to indicate the degree to which they want to experience each

of the positive emotions; this scale was modeled after Affect Valuation Index (Tsai et al. 2006). Since we are interested in contrasting HAP and LAP emotions, we adopted nine items from AVI: four (enthusiastic, energetic, strong, excited) measuring HAP emotions and five (peaceful, quiet, calm, relaxed, serene) measuring LAP emotions). Ratings were made on a 7-point scale with endpoints labeled 1 (not at all) and 7 (very much so). Participants then rated themselves on a nine-item scale to measure their influence and adjustment motivations (Tsai et al. 2007). Items like "I have an impact on others," "Others usually listen to what I have to say," measured influence goals; items such as" I go along with what others want," "I do what others want me to do," measured adjustment goals. Participants then completed the BIS/BAS scale (Carver and White 1994) as a measure of their chronic regulatory focus. The BIS/BAS scale was selected because (1) seminal studies (e.g., Leone et al. 2005) on the link between regulatory focus and positive emotions have utilized this scale. (2) Compared to other chronic regulatory focus measures, the BIS/BAS scale strongly emphasizes respondents' emotional reactions instead of cognitive elements (for an excellent review of chronic regulatory focus measures, see Haws, Dholakia, and Bearden forthcoming). Thus, it is most suitable for examining the emotional components of individuals' regulatory focus and enables us to maintain compatibility with prior literature. BAS scales have three subscales to represent distinctive facets: reward responsiveness, drive and fun seeking. Following previous research recommendations (e.g., Dholakia, Gopinath, Bagozzi, and Nataraajan 2006; Leone et al. 2005), we adopted the five items in the "reward responsiveness" subscale to measure individuals' promotion goals. These items capture individuals' appetitive/approach motivations to pursue success or pleasant outcomes. The BIS scale

has seven items as a proxy for individuals' aversive/avoidance motivations to prevent failures or unpleasant outcomes. Responses to the BIS/BAS scale were recorded on 4-point scales (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree). Finally, participants answered some background questions (e.g., demographic info) and were debriefed and thanked.

One possible concern regarding the scales used for the two pairs of goals (influence versus adjustment and promotion versus prevention) is the possibly high correlations among the measures. To ensure that constructs of interests are sufficiently distinct from each other, we assessed discriminant validity of the scales by testing for unity (Anderson and Gerbing 1988). A χ^2 difference test was performed to determine whether the constrained model (the correlation between one pair of constructs is fixed to 1.0) is significantly different from the unconstrained model (constructs are allowed to correlate freely with one another). In this constrained model, the correlation between two constructs (prevention and promotion goal) with the highest correlations (r= .56) was set to 1.0. We further constrain the relationship among the two constrained constructs and the remaining four constructs to be equal (Bagozzi and Phillips 1982). That the constrained model (χ^2 = 237.33, df = 98) is significantly different from the unconstrained model (χ^2 = 139.85, df = 94, p<.01) provides support for discriminant validity. Because the constructs with the strongest correlation achieved discriminant validity, no other tests were conducted.

Results

We conducted exploratory factor analysis and confirmatory factor analysis on each scale used. The measure properties and scale items are reported in Appendix D. The dependent variables were each averaged into a single index in the following analysis.

Cultural group differences in valuation of HAP and LAP emotions. We conducted a 2 cultural group (Caucasian versus Chinese) × 2 emotion type (HAP versus LAP) repeated measures analysis of variance, treating cultural group as a between-subjects factor and emotion as a within-subjects factor. The main effect of culture was not significant F (1, 239) = .11, p =.74. There was a main effect of emotion type such that HAP emotions were preferred over LAP emotions [M_{HAP} = 5.91, M_{LAP}=5.36, F (1, 239) = 72.88, p<.01, η^2= .23]. More importantly, the predicted cultural group × emotion type interaction was significant, F (1, 239) =125.05, p<.01, η^2= .34 (see Figure 7). Planned contrasts revealed that Caucasians value HAP more [$M_{Caucasians}$ = 6.29, $M_{Chinese}$=5.53, F (1, 239) = 49.80, p<.01, d=.92] and LAP less [$M_{Caucasians}$ = 5.01, $M_{Chinese}$=5.70, F (1, 239) = 35.50, p<.01, d=.72] than Chinese. In addition, whereas Caucasians gave significantly higher preference ratings for HAP emotions than LAP emotions [F (1, 239) = 96.57, p<.01], the preference scores for HAP and LAP emotions in the Chinese group were not significantly different [F (1, 239) = 2.38, p = .12]. For means and standard deviations, see Table 5a.

——— Insert Figure 7 about here. ———

——— Insert Table 5 about here. ———

Multiple mediation analysis. Having established that Caucasians and Chinese value and prefer different types of positive emotions. We now test H2 to determine whether emphasis on influence versus adjustment goals and on promotion versus prevention goals mediate the link between culture and valuation of distinct positive emotions. If mediation occurs, which specific goal(s) are influential in people's valuation of HAP or LAP emotions?

To explore the relationships among these potential mediators, we built two multiple mediator models, treating culture as the predictor variable and HAP or LAP as the dependent variable. (For correlations among variables, see Table 5b.) In each model, five proposed mediators—influence, suppression[3], conformation, promotion, and prevention goals were entered simultaneously. We used bootstrapping method described by Preacher and Hayes (2007) to estimate both direct and indirect effects with these multiple mediators. Bootstrapping method works very well for our study because (1) when working with small samples, bootstrapping method overcomes the traditional method's constraint of assuming a normal distribution (MacKinnon, Lockwood, and Williams 2004; Preacher and Hayes 2004). (2) All proposed mediators can be tested simultaneously so that a problem associated with a set of mediation tests (omitted mediator could lead to a biased parameter estimate) is not an issue here (Judd and Kenny 1981). (3) The specific indirect effect of each mediator can be tested while controlling for all other variables in the method and specific indirect effects can be compared for

3 Based on CFA analysis result, "adjustment goal" consists of two distinctive dimensions—suppression (indicator 1 and 2) and conformation (indicator 3 and 4). We, therefore, treat them as different mediators.

mediation strength (Preacher and Hayes 2007, 2008). The following analysis and bootstrap estimates were based on 5000 bootstrap samples (Preacher and Hayes 2008).

As shown in Figure 8, Panel A, both the total effect of culture on valuation of HAP emotions was significant (c= -.75, t (241) = -7.06, p<.01) and the direct effect was also significant (c'= -.47, t (241) = -4.03, p<.01). The total indirect effect through four mediators was significant, with a point estimate of -.28 and a 95% BCa (bias-corrected and accelerated) bootstrap confidence interval (CI) -.4737 to -.1469. Thus, the five types of goals partially mediated the association between culture and emotion valuations. An examination of the specific indirect effect for each proposed mediator showed that both *influence* and *promotion* are unique mediators, with point estimates (ab) of- .08 and -.22 and 95% CIs of -.2082 to -.0025, -.3479 to -.1023, respectively; whereas suppression, conformation, and prevention did not significantly mediate the effect of culture on HAP emotion valuation, with point estimates (ab) = .00, .01, .03 and 95% CIs of -.0345 to .0141, -.0306 to .0159; and -.0072 to .0918, respectively. A contrast test between the significant indirect effects revealed that the specific indirect effects of influence and promotion were not significantly different (95% CI of -.0232 to .3198).

———— Insert Figure 8 about here. ———-

As shown in Figure 8, Panel B, both the total effect and the direct effect of culture on valuation of LAP emotion were significant (c= .69, t (241) = 5.99, p<.01; c'= .71, t (241) = 5.28, p<.01). The total indirect effect through five mediators was not significant, with a point estimate of -.02 and a 95% CI of -.1467 to .1313. Moreover, no other specific indirect effect was significant.

Study 1 demonstrates that people's valuations of discrete positive emotions are contingent on their cultural background. Caucasians value HAP emotions more (and LAP emotions less) than their Chinese counterparts. This pattern appears to be partially driven by the different chronic goals salient in Caucasian and Chinese mindsets. The multiple mediation analysis reveals that cultural-based differences in valuation of HAP emotions are mainly driven by two unique mediators—influence goal and promotion goal. Our hypotheses about the motivational mechanisms underlying cultural differences in valuation of LAP emotions were not supported.

In Study 1, we rely on participants' reports about their preference for distinctive positive emotions. But will these cultural-linked differences in emotion valuation impact people's downstream decision-making? Moreover, following previous studies in this research stream (e.g., Leone et al. 2005), Study 1 used the BIS/BAS scale to assess participants' chronic regulatory focus. A potential criticism of this scale is that the behavioral inhibition system (BIS) and the behavioral approach system (BAS) represent two motivational systems. "Each of these two motivational systems is presumed to be related to one broad affective quality (the BAS to positive affect and the BIS to negative affect) and to be unrelated to the alternative affect" (Carver and White 1994, p.319). That is, the BIS scale may not be the most desirable measure of individuals' prevention goal for research focusing on people's valuation of discrete positive emotions. We address these issues in the next study.

Study 2

In Study 2, we asked participants to evaluate an activity that leads to different emotional outcomes. We chose "listening to music albums" because it is a commonplace activity relevant to younger adults in both cultures. Since Chinese and Caucasian participants are exposed to distinctive music genres and are influenced by vastly different pop cultures, we only presented the cover of the CD albums and samples of customer reviews to highlight the emotional outcomes after listening to the CDs. Participants did not actually listen to any music pieces. In other words, participants' judgments and evaluations were based on their anticipated emotional feelings after listening to the CD albums rather than their perception of any specific music tunes.

We also used Study 2 to re-examine the role of promotion and prevention goals in determining cultural differences in affect valuation. To exclude the potential alternative explanation of not finding the mediation effect of prevention goals using the BIS scale, we used the composite regulatory focus scale (Haws et al. forthcoming) to measure individuals' promotion and prevention goals, which as a regulatory focus measure, includes both cognitive and emotional measures and uses all past-, present-, and future-oriented items (for a discussion about the properties of this scale, see Haws et al. forthcoming).

Method

Participants. Participants were 68 Caucasian young adults (mean age=21.77, SD=1.11, age range = 20 to 26, 37females and 31 males) and 79 Chinese (mean age=

22.58, SD= 1.17, age range = 20 to 26, 33 females and 46 males). Caucasian participants were undergraduate students from a large Midwest university in the U.S. and Chinese participants were undergraduate students from an institution in northeast China. Participants received course credit for taking part in the study. Three Caucasian participants were excluded from the analyses because they were interrupted during the experimental sessions. In total, 65 Caucasian and 79 Chinese participants were included in the analyses.

Procedure. Upon arrival, participants were told that this was a study about "Music and Mood." Participants read: "Music has a powerful way of triggering emotions in us. By listening to music, we can usually experience different feelings and reach our ideal emotional states. In this survey, we will ask your opinions about some newly released music albums and your personal preferences for music selections." The stimuli involved the covers of two fictitious music CDs and sample music reviews associated with each CD. These experimental stimuli were adapted from Tsai et al. (2007), experiment 4. Specifically, the music CD that was intended to evoke HAP emotions was titled *Soundsplash* with the cover depicting a man surfing on a high wave, with music reviews describing it as "high energy, lively jives." The music CD that was manipulated to evoke LAP emotions was titled *Windchants* with the cover depicting a man meditating in the sunset, with music reviews describing it as "Guaranteed to chill you out."

After reading the CD covers and music reviews, participants were asked to rate themselves on a seven-point (1=definitely no, 7=definitely yes), three-item behavioral intention scale (1) If I were to buy a music album, I am likely to purchase this music CD.

(2) If I were looking for a music CD, I am likely to listen to sample music from this music CD. (3) I would consider purchasing this music album if I need to buy one. Participants then assessed themselves on the emotion valuation measures and the influence/adjustment scale that were also used in Study 1, as well as the Composite Regulatory Focus Scale (Haws et al. forthcoming). Finally, participants answered some ancillary questions including a manipulation check and demographic information. They were then debriefed and thanked. In this study, evaluations of the music albums were counterbalanced so that half of the participants evaluated the album *Windchants* first, and the other half evaluated the album *Soundspash* first.

Results

Manipulation checks. Analyses of the manipulation checks reveal that the emotion claim manipulation via different music choices is successful. Participants were asked to evaluate "To what extent do you think listening to this music album would make you feel each of the following emotions?" The anticipated HAP emotions were measured by excited, elated, and energetic; the anticipated LAP emotions were measured by peaceful, calm and relaxed. A 2 (cultural group: Caucasion versus Chinese) × 2 (music type: *Soundsplash* versus *Windchants*) analysis of variance on the anticipated emotion indexes revealed that participants expected to experience significantly more HAP emotions [$M_{Soundsplash} = 4.91$, $M_{Windchants}=3.02$, $F (1, 141) = 172.83$, $p<.01$] and less LAP emotions [$M_{Soundsplash} = 3.22$, $M_{Windchants}=5.59$, $F (1, 141) = 237.11$, $p<.01$] if they would listen to *Soundsplash* than *Windchants.*

Music album evaluations. To test whether consumers' cultural background and different anticipated emotional outcomes associated with music albums would influence participants' responses to the music albums, we conducted a 2 (cultural group: Caucasion versus Chinese) × 2 (music type: *Soundsplash* versus *Windchants*) analysis of covariance on the Intention Index (α= .91). Cultural group was a between-participants factor, and music type was a within-participants factor. We treated the music order as covariate. However, the general pattern of results held when the music order was not entered into the model.

As shown in Figure 9, the omnibus mixed-model ANOVA revealed the significant main effects of culture [$M_{Caucasians}$ = 3.30, $M_{Chinese}$=4.69, F (1, 141) = 74.20, p<.01, η^2= .35] and music type [$M_{Soundsplash}$ = 3.95, $M_{Windchants}$=4.04, F (1, 141) = 7.44, p<.01, η^2= .05]. These main effects were qualified by a significant interaction between cultural group × emotion type, F (1, 141) =10.57, p<.01, η^2= .07). Planned contrasts showed that the Caucasians gave significantly higher intention ratings to *Soundsplash* than *Windchants* [$M_{Soundsplash}$ = 3.53, $M_{Windchants}$=3.09, F (1, 141) = 5.75, p=.04], whereas the Chinese exhibited similar intention to listen to *Windchants* than *Soundsplash* [$M_{Soundsplash}$ = 4.56, $M_{Windchants}$=4.82, F (1, 141) = 2.84, p=.14].

———— Insert Figure 9 about here. ———-

Multiple mediation analysis. Following the same procedures as Study 1, we further test the proposed motivational mechanisms through which individuals' cultural backgrounds impact their valuation of discrete positive emotions (see Table 6a for means and Table 6b for correlations). We ran two multiple-mediation models of culture →

mediators (goals) → emotion valuations, in which all five mediators were entered simultaneously.

———— Insert Table 6 about here. ———-

The mediation tests and bootstrapping (5000 samples) results suggested that the total effect of culture on valuation of HAP emotions was significant [c = -.54, t (144) = -4.20, p<.01], but the direct effect was not significant [c'= -.18, t (144) = -1.22, p=.26]. The total indirect effect through five mediators was significant, with a point estimate of -.36 and a 95% BCa (bias-corrected and accelerated) bootstrap confidence interval (CI) of -.5760 to -.1723. As shown in Figure 10, Panel A, the specific indirect effects of *influence* and *promotion* were significant, with point estimates (ab) of -.56 and -.44 and 95% CIs of -.2186 to .0332, -.3832 to -.0209, respectively. No other specific indirect effects were significant. Contrast analysis between two significant indirect effects revealed that the specific indirect effects of influence and promotion were not significantly different (95% CI of -.1106 to .2813). As shown in Figure 10, Panel B, the total effect and the direct effect of culture on valuation of LAP emotions were significant [c = -.89, t (144) = 6.08, p<.01; c'= .99, t (144) = 5.75, p<.01, respectively], but the total indirect effect was not, with a point estimate of -.11 and a 95% CI of -.3277 to .1321. Follow-up tests revealed that no specific indirect effect was significant.

———— Insert Figure 10 about here. ———-

Discussion of Study 1 and Study 2

The results from Study 1 and 2 provide converging evidence that compared to Chinese participants, Caucasians value HAP emotions more and LAP emotions less.

Analysis within each cultural group reveals that Caucasians clearly pursue and prefer HAP emotions over LAP emotions, but these differences are not significant in the Chinese group. Moreover, participants' differential valuations of discrete emotions impact their downstream decision making. People's intention to get involved in an activity depends on its emotional outcome. Caucasians (versus Chinese) show higher intentions for listening to a CD album that may evoke HAP (versus LAP) emotions than one that may lead to LAP (versus HAP) emotions.

Why might such an effect occur? We argue that when discrete positive emotions are compatible with individuals' goals, these emotions become desirable and preferred. If this is the case, we should observe the mediating effect of five strategically chosen mediators—influence goal, suppression goal, conformation goal, promotion focus, and prevention focus. Our data partially support these propositions. For cultural effect on HAP emotions, two unique mediators were identified: influence goal and promotion goal. The strength of their mediation effects was not significantly different. For cultural effect on LAP emotions, the mediating roles of goals were not supported. Our initial concern was the measure properties of the BIS scale, which by design, has lower correlations with positive affect in general (Carver and White 1994). Therefore, in Study 2, we utilized a composite regulatory focus scale (Haws et al. forthcoming) to overcome these constraints. The specific indirect effect of prevention goal was still insignificant in the second study. We surmise that one possible explanation for not finding the mediation effect of goals in the association between culture and LAP emotions is because our samples being undergraduate students in both populations, Caucasian and Chinese

participants did not differ significantly in their adjustment goals (suppression and conformation) or prevention goals.

We conducted another study to examine the robustness and generalizability of the association between goals and specific positive emotions, in which, instead of cultural background, to assess individuals' chronic motivational tendencies, we focus on age—a factor that in theory, systematically shifts individuals' emphasis from influence to adjustment goals and from promotion to prevention goals.

Study 3

The specific objectives of Study 3 are to (1) explore age-based differences in valuation of HAP and LAP emotions, (2) simultaneously examine the potential mediating role of four types of motivational tendencies (influence versus adjustment and promotion versus prevention) in the relationship between age and affect valuation, (3) ascertain if the age-linked differences in emotional valuations impact their responses to different types of emotional ads.

Method

Participants. Participants were 68 young adults (mean age= 21.5, SD=1.12; range = 18-23 years old) and 59 older adults (mean age = 63.8, SD= 2.56; range= 60-87 years old). Young adults were undergraduate students at a large Midwest university who received course credit for their participation. Older adults were local residents who volunteered for participation, and were individually interviewed at a local public library. One male older participant's data were deleted from the analyses because he had difficulty understanding the study materials. Thus, 58 older adults were included in the

analyses. The elderly participants were screened based on their years of education (M > 8 years).

Procedure. As a cover story, participants were told that they would evaluate an advertisement created for a fictitious travel agency (Travelwizard.com) that contained several emotional claims regarding the traveling activities provided by the featured service provider. We modeled our manipulation of emotional claims after Kim, Park and Schwarz (2010). Specifically, we developed two different brochures that were similar in layout and content. In the HAP condition, the high-arousal emotional feelings associated with traveling (e.g., excitement and elation) were highlighted. A sample of emotional claims includes: “From exhilarating voyages under the sea to mind-blowing solo mountaintop climbs, we have your trip covered.” “Explore your world. Thousands of destinations await. Where will you find spine-tingling fun?” “Adventure is in store at your destination of choice. Experience the thrill and begin planning your trip today.” “This version of the brochure also featured pictures that illustrated the dynamic aspects of activities during traveling. In the LAP condition, the low-arousal emotional outcomes (e.g., peacefulness and relaxation) were emphasized. For example, emotional claims included in this version were: “Is it the calm breeze rolling by as you lounge by the water that makes this trip so relaxing or the relief in knowing that no matter what your vacation needs, we have you covered.” “Relax in your own little corner of the world. Thousands of destinations await. Where will you find serenity?” “Tranquility is in store at your destination of choice. Experience the restful peace that only a private getaway can provide!” The LAP brochure also included pictures of tranquil activities and peaceful scenes.

These emotional ads were pretested with a sample of 17 older adults and 18 younger adults. Participants first read the print ads and were asked to evaluate "To what extent do you think using the service from TravelWizard.com would make you feel each of the following emotions?" We analyzed the results using a 2 (age group: young versus old) × 2 (ad type: HAP versus LAP) between-subjects ANOVA. The anticipated HAP emotion index yielded the predicted main effect of ad type: that is, participants in the HAP (versus LAP) condition expect more high-arousal emotional feelings if they use the service from the promoted travel agency [M_{HAP} = 5.32, M_{LAP}= 3.70, F (1, 31) =13.08, p<.01]. Furthermore, the anticipated LAP emotion index revealed the predicted main effect of ad type: that is, participants in the LAP (versus HAP) condition expect to feel more low-arousal emotional feelings if they use the service from the promoted travel agency [M_{HAP} = 3.23, M_{LAP}= 4.95, F (1, 31) =11.67, p<.01].

In the main experiment, after reading the travel agency brochure, participants were asked (1) If you were looking for a travel agency, would you like to learn more about Travelwizard.com? (2) Would you like to use this travel agency's service if it is available locally? (1=definitely no, 7=definitely yes). Participants then rated themselves on the same emotion valuation measures used in Study 1 and primary and secondary control strategies scale (Wrosch, Heckhausen and Lachman 2000), as well as the composite regulatory focus scale (Haws et al. forthcoming). Finally, participants answered questions about manipulation check and demographic information, and were debriefed and thanked for their participation.

Results

Behavioral intentions. We conducted a 2 (age group: young versus old) × 2 (ad type: HAP versus LAP) between-subjects ANOVA on the behavioral intention index (see Figure 11). The results yielded a main effect of age (M_{young} =4.48, M_{old}= 4.16, F (1, 125) =2.93, p<.10), suggesting that younger adults give higher intention ratings than older participants. More importantly, there was also a significant age × ad type interaction: when the ad highlighted the HAP emotions of traveling, younger adults reported higher intentions to try or use the service than older participants (M_{young} =4.52, M_{old}= 3.88, F (1, 125) =10.91, p<.01), but age-based differences were not significant when the ad emphasized the LAP emotions (M_{young} =4.45, M_{old}= 4.44, F (1, 125) <1, n.s.).

——— Insert Figure 11 about here. ———

In addition, we ran a 2 (age group: young versus old) × 2 (emotion type: HAP versus LAP) mixed ANOVA on emotion valuation index, with age as a between-participants factor and emotion-type as a within-participants factor (see Figure 12). The predicted two-way interaction was significant (F (1, 124) = 27.35, p<.01). Younger adults value HAP emotions more (M_{young} =5.86, M_{old}= 4.86, F (1, 124) =11.47, p<.01) and LAP emotions less (M_{young} = 5.22, M_{old}=5.37, F (1,124) =6.27, p<.05), compared to older participants. (See Table 7a for means and standard deviations.)

——— Insert Figure 12 about here. ———

——— Insert Table 7 about here. ———

To gain insight into the underlying mechanisms, we ran two multiple-mediation models of age → mediators (goals) →emotion valuation, following the same bootstrapping procedures as those in Study 1 and 2. The mediation tests and bootstrapping (5000 samples) results revealed a significant total effect of age on valuation of HAP emotions [c = -.59, t (126) = -3.17, p<.01] and a significant direct effect [c = -.30, t (126) = -1.68, p<.10]. The total indirect effect through five mediators was significant, with a point estimate of -.30 and a 95% Bca bootstrap CI of -.6115 to -.0246. As shown in Figure 13, Panel A, the specific indirect effects of *influence* and *promotion* were significant, with point estimates (ab) of -.21 and -.27 and 95% CIs of -.4580 to -.0717, -.5567 to -.1085, respectively. No other specific indirect effects were significant. Contrast analysis between the specific indirect effects of influence and promotion shows that they were not significantly different (95% CI of -.1902 to .3410). As shown in Figure 13, Panel B, the total effect and the direct effect of culture on valuation of LAP emotions were significant [c = .51, t (126) = 2.50, p<.05; c'= .38, t (126) = 5.75, p<.10, respectively]. The total indirect effect was significant with a point estimate of .12 and a 95% CI of -.1694 to .3956. The specific indirect effect of *Adjustment (lower aspiration)* was significant, with point estimates (ab) of .27 and 95% CIs of .0784 to .5500. No other specific indirect effects were significant. (See Table 7b for correlations among variables).

———— Insert Figure 13 about here. ———-

Discussion of Study 3

The results of Study 3 suggest that compared to their younger counterparts, older people prefer and value LAP emotions more and HAP emotions less because of their stronger orientation toward adjustment goals and weaker orientation toward influence and promotion goals. These results not only provide a conceptual replication of the prior results based on cultural-linked comparisons about the compatibility between emotions and goals, but also add to the finding in the following ways. Unlike the first two studies testing cultural effect on influence/adjustment goals based on social comparison, Study 3 adopted the theoretical perspective that age-linked differences in chronic goals are due to increasing developmental losses and decreasing opportunities of goal fulfillment across the life span. We find support for these propositions in Study 3's results as older people have both a lower influence goal and a lower promotion goal but a higher adjustment goal. Moreover, we use different scales to capture two dimensions of the adjustment goal and find that older adults and younger adults are similarly motivated to use *positive reappraisal* strategy, but older adults have significantly higher motivation to use *lowering aspiration* strategy. In addition, we enhance the external validity by using a different method (HAP and LAP emotional appeals in a travel agency's ad) to assess the impact of emotion valuation on downstream decision making. We find that LAP emotional appeals are more persuasive for older participants.

General Discussion

This research examined people's valuation and preferences for different types of positive emotions—high arousal positive (HAP) emotions (e.g., excitement, elation, and enthusiasm) and low arousal positive (LAP) emotions (e.g., peacefulness, quiescence, and relaxation). Study 1 shows that Westerners (Caucasians) pursue and value HAP emotions more and LAP emotions less than Easterners (Chinese). Findings in Study 2 reveal the same pattern of results and further demonstrate that the Easterners' and the Westerners' differences in emotion valuation impact their downstream decision-making (intensions to involve in an emotion-eliciting activity). Results of Study 1 and 2 also provide insight into the underlying mechanisms. As predicted, the strength of individuals' personal goals (influence goal and promotion goal) mediates the cultural effect on valuation of HAP emotions. The proposed mediating role of personal goals underlying cultural effect on valuation of LAP emotions is not supported.

In Study 3, we expand our investigation to the life-span domain and found that compared to their younger counterparts, older adults value and pursue LAP emotions more and HAP emotions less. Here, too, we attribute the age-linked differences in emotion valuation to younger and older adults' distinctive motivational tendencies. As predicted, the strength of influence and adjustment goals mediates an age effect on HAP emotion valuation and the strength of the adjustment goal (lowering aspirations) mediates an age effect on LAP emotion valuation. Together, these findings have implications for the literature on emotions, culture-based differences in emotion valuation, and age-linked differences in responses to emotional appeals.

Theoretical Implications

This research was inspired in part by calls to better understand the role of discrete positive emotions in consumer decision-making (Lerner et al. 2007; Cavanaugh et al. 2007) and in part by the increased focus on the interplay between goals and emotions (e.g., Bosmans and Baumgartner 2005; Chitturi et al. 2007, 2008). Building on the two well-established streams of motivational research—regulatory focus theory (Higgins 1997, 2000) and primary/secondary control framework (Rothbaum et al.1982; Morling et al. 2002), we advance the current literature by asking why people differentiate emotions within the positive realm. Operationally, we select two research domains: culture-linked and age-linked differences—the two moderating factors that have a critical impact on individuals' chronic goals. Using multiple mediation analysis, we simultaneously investigate the potential mediation effects of four strategically chosen goals—promotion versus prevention and influence versus adjustment. Across three studies, this research provides consistent evidence that culture-linked and age-linked differences in preferences for HAP emotions are driven by individuals' influence and promotion goals. Westerners or younger adults value HAP emotions more than Easterners or older adults because of their stronger orientation toward influence and promotion goals. We also find partial support for the proposed mediation effects of personal goals on valuation of LAP emotions. The strength of the adjustment goal mediates an age effect on preferences for LAP emotions. Therefore, we extend current research on discrete positive emotions by showing that individuals differentially value HAP or LAP emotions depending on the compatibility between these emotions and their personal goals.

These findings also contribute to consumer research on culture-based differences in emotional responses. For example, Aaker and Williams (1998) examine how consumers in collectivist and individualist cultures respond to ego-focused and other-focused emotions. We extend this research line by adopting the view originating from Tsai's recent research on ideal affect (Tsai et al. 2006, 2007), which studies emotions as a motivational force, rather from the perspective of cognitive processing of emotional information. The current research both dovetails with Tsai's research by providing consistent evidence about culture-based differences in valuation of HAP and LAP emotions and complements it by offering new conceptual insights, such as the simultaneous mediation test of both influence versus adjustment goals and promotion versus prevention goals.

Furthermore, these findings also speak to the emerging stream of research that examines age-based differences in consumers' responses to emotional advertisements. Extant research (Williams and Drolet 2005; see Isaacowitz, Turk-Charles, and Carstensen (2000) for a review) has shown that compared to rational appeals, emotional appeals are more effective in communication with senior consumers. We extend this line of research by differentiating among different types of positive emotional appeals. Our findings indicate that emotional appeals that highlight the emotional outcome of low-arousal positive feelings are more persuasive to older adults than those emphasizing high-arousal positive feelings.

Practical Implications

From a practical standpoint, our findings have implications for firms interested in addressing culturally diverse segments, either in their marketing communications with consumers in a country of immigrants like the U.S. or in multinational firms' international markets. The finding that people in different cultures value different types of positive emotions implies that there may not be a universal definition of "good feelings." Marketers should be aware that Easterners and Westerners hold different goals and pursue different types of good feelings (HAP versus LAP emotions). A positive emotional message is likely to be more persuasive if it is presented in a way that is congruent with consumers' chronic motivational tendencies. Relatedly, these findings are also relevant to marketers whose primary customers are senior adults, who will represent more than 13 percent of the world's populations (more than one person in eight) by 2020 (United Nations' 2002 report). Based on our findings, for older consumers, not all emotional ads are created equal. In fact, low-arousal emotional appeals are more effective than high-arousal emotional appeals because of their compatibility with senior adults' personal goals.

Future Research Directions

The limitations of current research open several future research avenues. We did not find support for some of the predicted specific indirect mediation effects. For example, the mediation effects of prevention goals or adjustment goals in cultural effect on emotion valuation are not significant in Study 1 and Study 2. We excluded one possible explanation of measure deficits of the BIS/BAS scale by using a different scale

(composite regulatory focus scale) in Study 2. Although we are waiting for more empirical evidence to generate a conclusion, we surmise the reason we do not find the above-mentioned mediation effects is because of the insignificant paths from independent variable (culture) to mediators. In other words, in our data set, culture-based differences in adjustment goals or prevention goals are not significant. We use a convenient sample of undergraduate students from both cultures (Caucasians and Chinese). Future research may test the stability of our findings with other populations or demographics.

This research examined how positive emotions differ along the activation dimension—HAP and LAP emotions. But discrete positive emotions may differ in many other ways, such as the self-related versus other-related dimension (Agrawal, Menon and Aaker 2007) and the ego-focused or other focused dimension (Aaker and Williams 1998). It may also be promising to extend current research by focusing on one discrete positive emotion (e.g., pride, enthusiasm, and hope) to further differentiate emotions beyond their common positive valence.

References

Aaker, Jennifer L. and Angela Y. Lee (2001), "'I' Seek Pleasures and 'We' Avoid Pains: The Role of Self-Regulatory Goals in Information Processing and Persuasion," *Journal of Consumer Research*, *28*(1), 33-49.

Aaker, Jennifer L. and Patti Williams (1998), "Empathy Versus Pride: the Influence of Emotional Appeals Across Cultures," *Journal of Consumer Research*, 25(3), 241-61.

Agrawal, Nidhi, Geeta Menon, and Jennifer Aaker (2007), "Getting Emotional About Health," *Journal of Marketing Research*, 34 (February), 100-13.

Anderson, James C and David W. Gerbing (1988), "Structural equation modeling in practice: A review and recommended two-step approach," *Psychological Bulletin*, *103*(3), 411-23.

Ashton, Michael C. and Kibeom Lee (2009), "The HEXACO-60: A Short Measure of the Major Dimensions of Personality," *Journal of Personality Assessment*, *91*(4), 340-45.

Avnet, Tamar and Tory E Higgins (2006), "How Regulatory Fit Affects Value in Consumer Choices and Opinions," *Journal of Marketing Research*, *43*(1), 1-10.

Bagozzi, Richard P. and Utpal M. Dholakia (2006), "Antecedents and purchase consequences of customer participation in small group brand communities," *International Journal of Research in Marketing*, 23(1), 45-61.

Bagozzi, Richard P. and Lynn W. Phillips (1982), "Representing and Testing Organizational Theories: A Holistic Construal," *Administrative Science Quarterly*, *27*(3), 459-89.

Baltes, Margret M. and Paul B. Baltes (1990), "Psychological Perspectives on Successful Aging: The Model of Selective Optimization with Compensation," *Successful Aging: Perspectives from the Behavioral Sciences*, ed. Paul B. Baltes and Margret M. Baltes, New York, NY: (Association), 1-34.

Baltes, Paul B. (1987), "Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline," *Developmental Psychology*, *23*(5), 611-26.

Baltes, Paul B. and Alexandra M. Freund (2000), "The Orchestration of Selection, Optimization and Compensation: An Action-Theoretical Conceptualization of a Theory of Development Regulation," in *Control of Human Behavior, Mental Processes, and Consciousness: Essays in Honor of the 60th Birthday of August Flammer*, ed. Walter J. Perrig and Alexander Grob, Mahwah, NJ: (Association), 35-58.

Barrett, Lisa Feldman and James A. Russell (1999), "The Structure of Current Affect: Controversies and Emerging Consensus," *Current Directions in Psychological Science*, 8, 10–14.

Baumgartner, Hans and Anick Bosmans (2005), “Goal-Relevant Emotional Information: When Extraneous Affect Leads to Persuasion and When It Does Not,” *Journal of Consumer Research*, *32*(3), 424-34.

Bettman, James R., Lisa A. Cavanaugh, Mary Frances Luce, and John W. Payne (2007), “Appraising the Appraisal-Tendency Framework,” *Journal of Consumer Psychology*, *17*(3), 169–173.

Bosmans, Anick and Hans Baumgartner (2005), “Goal-Relevant Emotional Information: When Extraneous Affect Leads to Persuasion and When It Does Not,” *Journal of Consumer Research*, 32 (December), 424-434.

Brandstädter, Jochen and Werner Greve (1994), “The Aging Self: Stabilizing the Protective Processes,” *Developmental Review*, *14*, 52-80.

Brandstädter, Jochen and Gerolf Renner (1990), “Tenacious Goal Pursuit and Flexible Goal Adjustment: Explication and Age Related Analysis of Assimilative and Accommodative Strategies of Coping,” *Psychology and Aging*, *5*(1), 58-67.

Brandstädter, Jochen and Bernhard Baltes- Götz (1990), “Personal Control over Development and Quality Of Life Perspectives in Adulthood,” In *Successful aging: Perspectives from the behavioral sciences*, ed. Paul B. Baltes and Margret M. Baltes, New York: Cambridge University Press, 197–224.

Brandstädter, Jochen, Dirk Wentura, and Werner Greve (1993), “Adaptive Resources of the Aging Self: Outlines of an Emergent Perspective,” *International Journal of Behavioral Development*, *16*(2), 323-49.

Brislin, Richard W. (1970), “Back-Translation for Cross-Cultural Research,” *Journal of Cross-Cultural Psychology*, *1*(3), 185-216.

Carstensen, Laura L. (1995), “Evidence for a Life-Span Theory of Socioemotional Selectivity,” *Current Directions in Psychological Science*, *4*(5), 151-56.

Carstensen, Laura L., Derek M. Isaacowitz, and Susan T. Charles (1999), “Taking Time Seriously: A Theory of Socioemotional Selectivity,” *American Psychologist*, *54*(3), 165-81.

Carver, Charles S. and Michael F. Scheier (1990), “Origins and Functions of Positive and Negative Affect: A Control-Process View,” *Psychological Review*, *97*(1), 19-35.

Carver, Charles S. and Teri L. White, “Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS Scales,” *Journal of Personality and Social Psychology*, *67*(2), 319-33.

Cavanaugh, Lisa A., James R. Bettman, Mary Frances Luce, and John W. Payne (2007), “Appraising the Appraisal-Tendency Framework,” *Journal of Consumer Psychology*, 17, 169–73.

Chitturi, Ravindra, Vijay Mahajan, and Rajagopal Raghunathan (2007), “Form Versus Function:How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Trade-Offs Mediate Product Preferences,” *Journal of Marketing Research*, *44*(4), 702-14.

_____, _____, and _____ (2008), "Delight by Design: The Role of Hedonic Versus Utilitarian Benefits," *Journal of Marketing*, *72*(3), 48-63.

Dholakia, Utpal M. Mahesh Gopinath, Richard P. Bagozzi, and Rajan Nataraajan (2006), "The Role of Regulatory Focus in the Experience and Self-Control of Desire for Temptations," *Journal of Consumer Psychology*, 16(2), 165-77.

Dittmann-Kohli, Freya and Gerben J. Westerhof (1997), "The Self Sentence Completion Questionnaire: A new Instrument for the Assessment of Personal Meaning in Research on Aging," *Anuario de Psicología*, *73*, 7-18.

Fischer**,** Ronald (2004), "Standardization to Account for Cross-Cultural Response Bias: A Classification of Score Adjustment Procedures and Review of Research in JCCP," *Journal of Cross-Cultural Psychology*, *35*(3), 263-82.

Gasper, Karen, and Clore Gerald L. (2002), "Attending to the Big Picture: Mood and Global versus Local Processing of Visual Information," *Psychological Science.* 1, 34–40.

Gray, Jeffrey A. (1990), "Brain Systems that Mediate both Emotion and Cognition," Cognition *and Emotion*, *4*(3), 269-288.

Griskevicius, Vladas, Stephen M. Nowlis, and Michelle N. Shiota (2010, forthcoming), "The Many Shades of Rose-Colored Glasses: An Evolutionary Approach to the Influence of Different Positive Emotions," *Journal of Consumer Research*.

Harter, Susan (1990), “Causes, Correlates, and the Functional Role of Global Self-Worth: A Life-Span Perspective,” in *Competence Considered*, ed. John Kolligian, Jr. and Robert J. Sternberg, New Haven, CT, 67-97.

Haws, Kelly L., Utpal M. Dholakia, and William O. Bearden (forthcoming), “An Assessment of Chronic Regulatory Focus Measures,” *Journal of Marketing Research.*

Hayes, Andrew F. and Kristopher J. Preacher (2008), “Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models,” *Behavior Research Methods*, *40* (3), 879-89.

Hayes, Andrew F. and Kristopher J. Preacher (2004), “SPSS and SAS procedures for estimating indirect effects in simple mediation models,” *Behavior Research Methods*, *36* (4), 717-73.

Heine, Steven J (2001), “Self as Cultural Product: An Examination of East Asian and North American Selves,” *Journal of Personality*, *69*(6), 881-906.

Heckhausen, Jutta, Roger A. Dixon, and Paul B. Baltes (1989), “Gains and Losses in Development throughout Adulthood as Perceived by Different Adult Age Groups,” *Developmental Psychology*, 25 (1), 109-21.

Heckhausen, Jutta, Carsten Wrosch, and Richard Schulz (2010), “A Motivational Theory of Life-Span Development,” *Psychological Review*, 117(1), 32-60.

Higgins, E. Tory (1997), “Beyond pleasure and pain,” *American Psychologist*, *52*(12), 1280-1300.

_____ (1998), “Promotion and Prevention: Regulatory Focus as a Motivational Principle,” *Advances in Experimental Social Psychology, 30*, 1-44.

_____ (2000). Making a good decision: Value from fit. *American Psychologist, 55*, 1217-30.

_____, James Y. Shah, and Ronald Friedman (1997), “Emotional Responses to Goal Attainment: Strength of Regulatory Focus as Moderator,” *Journal of Personality and Social Psychology*, 72 (3), 515-25.

Hofstede, Geert (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nation*, 2nd ed. Thousand Oaks, CA: Sage.

Huber, Frank, Suzanne C. Beckman, and Andreas Herrmann (2004), “Means-end Analysis: Does the Affective State Influence Information Processing Style?” *Psychology & Marketing, 21*(9), 715 – 37.

Isaacowitz, Derek M., Susan Turk-Charles, and Laura L. Carstensen (2000), “Emotion and Cognition,” in *Handbook of Aging and Cognition*, 2nd ed., ed. Fergus Craik and Timothy Salthouse, Mahwah, NJ: Lawrence Erlbaum, 593–631.

Iyengar, Sheena S. and Mark R. Lepper (1999), “Rethinking the Value of Choice: A Cultural Perspective on Intrinsic Motivation,” *Journal of Personality and Social Psychology*, *76*(3), 349-66.

Judd, Charles M. and David A. Kenny (1981), **“**Process Analysis: Estimating Mediation in Treatment Evaluations,” *Evaluation Review*, *5*(5), 602-19.

Kim , Hakkyun, Kiwan Park and Norbert Schwarz (2009), “Will This Strip Really Be Exciting? The Role of Incidental Emotions in Product Evaluation,” *Journal of Consumer Research,* 36(2), 983-91.

Larsen, Randy J. and Edward Diener (1992), “Promises and Problems with the Circumplex Model of Emotion,” in *Review of Personality and Social Psychology: Emotion*, ed. Margaret S. Clark, Newbury Park, CA: Sage, 25-59.

Lee, Angela Y. Jennifer L. Aaker, and Wendi L. Gardner (2000), “The Pleasures and Pains of Distinct Self-Construals: The Role of Interdependence in Regulatory Focus,” *Journal of Personality and Social Psychology*, *78*(6), 1122-34.

Leone, Luigi, Marco Perugini, Richard P. Bagozzi (2005), “Emotions and Decision Making: Regulatory Focus Moderates the Influence of Anticipated Emotions on Action Evaluations,” *Cognition and Emotion*, 19, 1175–98.

Lerner, Jennifer S. and Dacher Keltner (2001), “Fear, Anger, and Risk,” *Journal of Personality and Social Psychology*, *81*(1), 146-59.

Lerner, Jennifer S., Seunghee Han, and Dacher Keltner (2007), “Feelings and Consumer Decision Making: Extending the Appraisal-Tendency Framework,” *Journal of Consumer Psychology*, 17 (3), 184-87.

Levenson, Robert W., Kimberly McCoy, and Jeanne L. Tsai (2006), “Cultural and temperamental variation in emotional response,” *Emotion*, *6*(3), 484-97.

Libby, William L., Beatrice C. Lacey, and John I. Lacey (1973), “Pupillary and Cardiac Activity During Visual Attention,” *Psychophysiology*, *10*(3), 270-294.

Lockwood, Penelope, Alison L. Chasteen, and Carol Wong (2005), "Age and Regulatory Focus Determine Preferences for Health-Related Role Models," *Psychology and Aging*, *20*(3), 376-89.

MacKinnon, D. P., Lockwood, C. L., and Williams, J. (2004), "Confidence limits for the indirect effect: Distribution of the product and resampling approaches," *Multivariate Behavioral Research*, *39*, 99–128.

Markus, Hazel Rose and Shinobu Kitayama (1994), "A Collective Fear of the Collective: Implications for Selves and Theories of Selves," *Personality and Social Psychology Bulletin*, *20*(5), 568-79.

Mehrabian, Albert and James A. Russell (1974), *An Approach to Environmental Psychology*, Boston: MIT Press.

Meredith, William (1993), "Measurement Invariance, Factor Analysis and Factorial Invariance," *Psychometrika*, *58*(4), 525-43.

Morling, Beth and Sharrilyn Evered (2006), "Secondary Control Reviewed and Defined," *Psychological Bulletin*, 132(2), 269-96.

_____, Shinobu Kitayama, and Yuri Miyamoto (2002), "Cultural Practices Emphasize Influence in the United States and Adjustment in Japan," *Personality and Social Psychology Bulletin*, *28*(3), 311-323.

Obrist, Paul A. (1981), "*Cardiovascular Psychophysiology: A Perspective*," New York : Plenum Press.

Ogilvie, Daniel M., Kristin M. Rose, and Jessica B. Heppen (2001), "A comparison of personal project motives in three age groups," *Basic and Applied Social Psychology, 23 (3),* 207-15.

Raghunathan, Rajagopal and Michel Tuan Pham (1999), "All Negative Moods Are Not Equal: Motivational Influences of Anxiety and Sadness on Decision Making," *Organizational Behavior and Human Decision Processes, 79*(1), 56-77.

Rothbaum, Fred, John R. Weisz, and Samuel S. Snyder (1982), "Changing the World and Changing the Self: A Two-Process Model of Perceived Control," *Journal of Personality and Social Psychology*, *42*(1), 5-37.

Ryff, Carol D. (1989), "Happiness is Everything, or Is It? Explorations on the Meaning of Psychological Well-being," *Journal of Personality and Social Psychology*, *57*(6), 1069-81.

_____ (1991), "Possible Selves in Adulthood and Old Age: A Tale of Shifting Horizons," *Psychology and Aging*, *6*(2), 286-95.

Schupp, Harald, Bruce Cuthbert, Margaret M. Bradley, Niels Birbaumer, and Peter J. Lang (1997), "Probe P3 and Blinks: Two Measures of Affective Startle Modulation," *Psychophysiology, 34,* 1–6.

Tsai, Jeanne L. (2007), "Ideal Affect: Cultural Causes and Behavioral Consequences," *Perspectives on Psychological Science, 2*, 242-59

Tsai, Jeanne L., Yu-Wen Ying, and Peter A. Lee (2000), Cultural Orientation and Racial Discrimination: Predictors of Coherence in Chinese American Young Adults," *Journal of Community Psychology*, *28*(4), 427– 42.

Tsai, Jeanne L, Knutson, B., & Fung, H.H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90, 288-307.

Tsai, Jeanne L, Felicity F. Miao, Emma Seppala, Helene H. Fung, and Dannii Y. Yeung (2007), "Influence and Adjustment Goals: Sources of Cultural Differences in Ideal Affect." *Journal of Personality and Social Psychology*, 92 (6), 1102-17.

Tomaka, Joe, Jim Blascovich, Christopher L. Leitten, and Kelsey M. Robert (1993), "Subjective, Physiological, and Behavioral Effects of Threat and Challenge Appraisal," *Journal of Personality and Social Psychology*, *65*(2), 248-60.

Weisz, John R., Fred M. Rothbaum, and Thomas C., Blackburn (1984), "Standing Out and Standing In: The Psychology of Control in America and Japan," *American Psychologist*, *39*(9), 955-69.

Williams, Patti and Aimee Drolet (2005), "Age-Related Differences in Responses to Emotional Advertisements," *Journal of Consumer Research*, *32*(3), 343-54.

Wrosch, Carsten, Jutta Heckhausen and Margie E. Lachman (2000), "Primary and Secondary Control Strategies for Managing Health and Financial Stress across Adulthood," *Psychology and Aging*, *15*(3), 387-99.

CHAPTER FOUR: DISSERTATION SUMMARY

Affect (feelings and emotions) is a crucial part of consumption experience. Not surprisingly, businesses go to great lengths to create a positive brand experience for their customers. Consider for example, Tide's ads depict laundry as fun and interesting; Coke aims to become a global happiness factory; and Wal-Mart holds a 10-foot smiling policy. It is noteworthy that in these practices, the same set of affective ingredients or emotional rules are often applied in marketing communication with a culturally diverse customer base (e.g., Wal-Mart's 10-foot smiling rule in the U.S. is simply translated as 3-meter smiling rule in its Chinese branches with little adaptation), which seems to be predicated on the belief that customers with different cultural backgrounds respond to positive emotional appeals in the same way. This dissertation research investigates whether and how culture-specific emotional norms and display rules shape consumers' responses to marketers' attempts to use positive emotions as a persuasion tool.

Essay 1 examines the effectiveness of one ubiquitous marketing tactic—employees' (positive) affective display (EAD) in customer interactions. Firms train and monitor their employees to display socially desirable emotions in their interactions with customers (e.g., smiling, maintaining eye contact, and thanking) to improve the customer experience or enhance service relationships. Departing from the prevailing view that "service with a smile" is always desirable, this research proposes that the effectiveness of EADs depends on the affective content associated with the service and customer/employee cultural group membership. These theoretical propositions are tested in two empirical studies, using videotaped stimuli produced in local businesses. Results

of Study 1 reveal that positive EADs lead to better customer outcomes (customers' mood, interaction quality and customer satisfaction) than the neutral condition (no smile at all) in a low affective content service (bookstore). Interestingly, in a high affective content service (flower shop), only authentic EADs are preferred over the neutral condition. Inauthentic EADs boomerang, leading to even worse customer outcomes than the neutral (control) group. Building on Study 1's results, Study 2 shows that the differential impacts of authentic and inauthentic EADs will be exaggerated when the customers and employees share the same cultural background or when the customers are from an eastern culture (China). Findings of this essay imply that the management strategy of employees' emotional performance should vary based on service type (high or low affective content services) and customer characteristic (customers' cultural background).

Essay 2 moves to the context of marketing communication and studies marketers' attempts to use positive emotions as a persuasion tool. The central hypothesis is that people value different types of positive emotions (high-arousal positive and low-arousal positive emotions) depending on the compatibility between these emotions and their personal goals (influence versus adjustment or promotion versus prevention). This is supported in both culture-based and age-linked comparisons. In a series of three empirical studies, findings in this essay demonstrate that Westerners or younger adults are likely to value high-arousal positive emotions (e.g., excitement and enthusiasm) more and low-arousal positive emotions less (e.g., peacefulness and relaxation) than Easterners or older adults because of their distinctive motivational tendencies.

Taken together, these two dissertation essays enhance our understanding of culture-based differences in customers' perception of positive emotions. This research focuses on two domains—the interpersonal interaction at service encounters and marketing communications. Building on the findings of this dissertation, future research may investigate cultural differences in emotion valuation in other consumption contexts.

TABLE 1
Summary of Illustrative EAD Studies

Reference	Context	EAD Measurement		DV	Theoretical Mechanisms				General
					Frequency		Authenticity		Conclusion
		Freq-*	Auth-		Direct	Indirect	Direct	Indirect	
Sutton and Rafaeli (1988)	Convenience stores	EAD-1	N/A	Store sales	N/A	N/A	N/A	N/A	Employees are less likely to display positive emotions at rapidly paced stores with high sales than at slow-paced stores.
Brown and Sulzer-Azaroff (1994)	Bank transactions	EAD-1	N/A	Customer Satisfaction	N/A	N/A	N/A	N/A	EADs enhance customer satisfaction ratings.
Pugh (2001)	Bank transactions	EAD-1	Employees' positive affect at work	Service quality	Not Supported	Supported	Not Supported	Not Supported	EADs, even fake ones, improve customer service quality perception.
Tsai (2001)	Retail shoe stores	EAD-1	N/A	Customer behavioral intentions	Supported	N/A	N/A	N/A	EAD increases customer willingness to return to the store and pass positive comments to friends.
Tsai and Huang (2002)	Retail shoe stores	EAD-1	N/A	Customer behavioral intentions	Supported	Supported	N/A	N/A	EAD enhances customer behavioral intentions via increases in customers' in-store positive moods and perceived friendliness.
Mattila, Grandey and Fisk (2003)	Hotel check-in	EAD-1	N/A	Employee performance Customer Satisfaction	N/A	N/A	N/A	N/A	EAD effects on customer satisfaction vary by gender and service outcome.

Reference	Context	EAD Measurement		DV	Theoretical Mechanism				General Conclusion
					Frequency		Authenticity		
		Freq-	Auth-		Direct	Indirect	Direct	Indirect	
Luong (2005)	Bookstore checkout	EAD -1	N/A	Employee performance Customer Satisfaction	Supported	Supported	N/A	N/A	EADs increase positive mood and decreases negative mood. This effect is stronger for customers high in emotional expressivity.
Grandey et al. (2005)	Hotel check-in and restaurant	N/A	Coders' categorization and customer perceived authenticity	Overall satisfaction with the encounter	N/A	N/A	Supported	N/A	EAD authenticity enhances customer satisfaction. This effect is weaker when the task performance is low or when the store is busy.
Hennig-Thurau, et al. (2006)	Personalized movie rental consulting service	EAD -2	Customer perceived authenticity	rapport, customer satisfaction, future loyalty intentions	Not Supported	Not Supported	Supported	Supported	EAD authenticity, rather than the extent of smiling, impacts customers' emotions and perceptions
Barger and Grandey (2006)	Food stores	EAD -2	N/A	Encounter satisfaction	Supported	Supported	N/A	N/A	EAD effects on customer satisfaction is mediated by primitive emotional contagion and customers' service quality appraisals.
Gountas, Ewing and Gountas (2007)	Airline (Flight attendants)	N/A	sincerity, deception and credibility	Willingness to return, overall satisfaction,	N/A	N/A	Supported	N/A	There is a strong positive relationship between EAD and overall service satisfaction, life satisfaction and likelihood of repurchase.

* EAD-1 represents composite measure of EAD frequency (i.e., the combination of EAD components including smiling, greeting, thanking, speaking in a rhythmic tone, maintaining eye contacts). EAD-2 represents specific measure of EAD frequency focusing employees' smiling behavior only.

TABLE 2

Correlations, Means and Standard Deviations for the Construct Measures[a]

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Y1[b]		.87	.88	.68	.66	.65	.71	.67	.69	.66	.69
Y2	.58		.87	.62	.62	.61	.73	.71	.69	.66	.69
Y3	.77	.72		.65	.64	.63	.73	.72	.72	.68	.71
Y4	.25	.46	.37		.89	.86	.69	.67	.66	.63	.65
Y5	.26	.49	.36	.74		.87	.70	.67	.68	.65	.64
Y6	.30	.49	.38	.72	.87		.70	.68	.67	.66	.66
Y7	.49	.51	.57	.54	.48	.50		.93	.86	.87	.86
Y8	.49	.46	.57	.52	.45	.48	.86		.85	.83	.84
Y9	.55	.50	.63	.43	.37	.43	.83	.79		.94	.90
Y10	.51	.50	.62	.39	.31	.36	.78	.76	.90		.91
Y11	.46	.46	.56	.42	.36	.43	.77	.76	.83	.85	
Low Affective Content Service (Bookstore)											
Mean	3.75	4.89	4.10	2.58	2.30	2.4	4.80	4.93	4.64	4.68	4.67
SD	1.52	1.47	1.48	1.57	1.43	1.56	1.61	1.66	1.56	1.58	1.69
High Affective Content Service(Flowershop)											
Mean	3.59	4.16	3.71	3.96	3.61	3.70	3.98	4.11	4.02	4.03	3.94
SD	1.68	1.71	1.75	1.91	2.01	1.95	1.98	1.95	1.89	1.77	1.86

a: Ys are defined in Appendix A.
b: The lower triangle represents the correlations for low-affective content service; the upper triangle represents the correlations for high affective content service.

TABLE 3

Loading and Intercept Values, Residuals, and h^2 Values for Each Indicator, and the Estimated Latent Variance from the Strong Metric Invariance Model[a]

Construct/	Equated LISREL estimates		Standardized	High A-C Service		Low A-C Service	
Indicators	Loading (SE)	Intercept (SE)	Loading[b]	Residuals	h^2	Residuals	h^2
Customer Positive Affect							
Estimated latent variance (Low A-C service = .641)							
Y1	1.562 (.112)	3.527 (.149)	.988	.334	.790	.806	.660
Y2	1.551 (.114)	4.274 (.150)	.857	.447	.843	.959	.617
Y3	1.687 (.119)	3.691 (.160)	.939	.353	.890	.268	.872
Customer Negative Affect							
Estimated latent variance (Low A-C service = .543)							
Y4	1.781 (.127)	3.927 (.170)	.880	.461	.873	.943	.646
Y5	1.855 (.130)	3.624 (.175)	.942	.449	.885	.225	.892
Y6	1.856 (.132)	3.719 (.177)	.919	.567	.859	.411	.820
Interaction Quality							
Estimated latent variance (Low A-C service = .631)							
Y7	1.930 (.129)	3.973 (.178)	.967	.158	.959	.259	.901
Y8	1.870 (.129)	4.119 (.176)	.933	.366	.905	.483	.821
Customer Satisfaction							
Estimated latent variance (Low A-C service = .708)							
Y9	1.793 (.122)	4.004 (.167)	.960	.259	.925	.211	.915
Y10	1.728 (.117)	4.034 (.160)	.955	.207	.935	.287	.881
Y11	1.763 (.123)	3.972 (.166)	.916	.390	.889	.618	.781

[a] Construct variances constrained to 1 in the high affective content service encounter for identification
[b] Common Metric Completely Standardized Solution
[c.] High A-C Service=High Affective Content Service (n=123); Low A-C Service=Low Affective Content Service (n=129)

TABLE 4

Fit Indices for the Nested Sequence in the SEM Tests

Analysis Context	Ps	Model	$\chi 2$	df	p	$\Delta\chi 2$	Δdf	p	RMSEA	NNFI	CFI	Results
Low	H2	Base model (All paths free.)	72.32	52	.03	n/a	n/a	n/a	.048 (.000-.078)	.987	.991	
		All paths from authenticity fixed to be equal to paths from frequency.	97.44	56	.00	25.12	4	.00	.065 (.035-.091)	.976	.983	
		Paths from authenticity and frequency to negative-mood free.*	77.82	55	.02	19.62	1	.00	.050 (.000-.079)	.986	.990	H2 partially supported.
High	H4	Base model (All paths free.)	52.89	52	.43	n/a	n/a	n/a	.000 (.000-.055)	1.0	1.0	
		All paths from authenticity fixed to be equal to paths from frequency.	119.48	56	.00	66.59	4	.00	.076 (.049-.101)	.979	.985	
		Paths from authenticity and frequency to interaction quality free.	88.21	55	.00	31.27	1	.00	.059 (.024-.087)	.989	.992	H4a supported.
		Paths from authenticity and frequency to negative mood free.	78.93	54	.02	9.28	1	.00	.055 (.013-.084)	.991	.994	H4b supported.
		Paths from authenticity and frequency to positive mood free.*	53.51	53	.05	25.42	1	.00	.000 (.000-.055)	1.0	1.0	H4c supported. H4d not supported.
Compare Low and High	H5 & H6	Base model (All paths free.)	153.26	118	.02	n/a	n/a	n/a	.044 (.009-.065)	.993	.995	
		All paths are fixed to be equal in low and high affective content services.	201.47	131	.00	48.21	13	.00	.060 (.040-.078)	.987	.989	
		Paths from authenticity to negative mood free across two services.	187.80	130	.00	13.67	1	.00	.055 (.034-.074)	.989	.991	
		Paths from authenticity to interaction quality free across two services.	183.28	129	.00	4.52	1	.03	.055 (.033-.074)	.990	.992	H5 not supported. H6 supported.
		Paths from authenticity to negative mood free across two services.*	166.77	128	.01	16.51	1	.00	.046 (.017-.066)	.993	.994	

*No other paths from authenticity were significantly different from those from frequency.

TABLE 5a

Means and Standard Deviations for Emotion and Goal Variables in Study 1

Variable	Caucasian	Chinese
Valuation of HAP emotions	6.29 (.75)	5.53 (.90)
Valuation of LAP emotions	5.01 (.95)	5.71 (.86)
Influence goal	5.80 (.63)	5.21 (.91)
Adjustment-suppression goal	2.95 (1.13)	2.98 (1.13)
Adjustment-conformation goal	3.67 (1.22)	3.50 (1.14)
Promotion goal	3.46 (.35)	3.11 (.39)
Prevention goal	2.91 (.60)	2.74 (.39)

TABLE 5b

Zero-order Correlations for Variables in Study 1

	1	2	3	4	5	6	7
Valuation of HAP emotions		.46**	.17	-.19*	-.07	.16	-.13
Valuation of LAP emotions	.23**		-.15	.03	-.09	.06	-.02
Influence goal	.21*	-.01		-.27**	-.12	.18	-.07
Adjustment-suppression goal	-.05	-.02	-.17		.25**	-.09	.24**
Adjustment-conformation goal	.10	.12	.18*	-.16		.11	.23**
Promotion goal	.35**	.07	.16	.02	.09		.38**
Prevention goal	.13	.06	-.09	.18	.04	.39**	

NOTE: 1. The lower triangle represents the correlations for Chinese sample; the upper triangle represents the correlations for Caucasian sample.

2. * p<.05. ** p<.01

TABLE 6a

Means and Standard Deviations for Emotion and Goal Variables in Study 2

Variable	Caucasian	Chinese
Valuation of HAP emotions	5.98 (.77)	5.46 (.77)
Valuation of LAP emotions	4.82 (.97)	5.73 (.79)
Influence goal	5.61 (.69)	5.06 (.94)
Adjustment-suppression goal	3.09 (1.47)	3.38 (1.30)
Adjustment-conformation goal	3.62 (1.22)	3.60 (.94)
Promotion goal	3.48 (.38)	3.04 (.32)
Prevention goal	3.02 (.45)	2.90 (.40)

TABLE 6b

Zero-order Correlations for Variables in Study 2

	1	2	3	4	5	6	7
Valuation of HAP emotions		.42**	.36**	-.29*	-.07	.23	.23
Valuation of LAP emotions	.49**		-.18	.14	.04	.09	.29*
Influence goal	.24*	-.01		-.14	-.18	.28*	.18
Adjustment-suppression goal	-.05	-.16	-.14		.20	-.00	.23
Adjustment-conformation goal	-.05	.07	.18	.30**		-.27*	-.03
Promotion goal	.33**	.20	.16	.08	.12		.38**
Prevention goal	.04	.20	-.17	.16	.07	.34**	

NOTE: 1. The lower triangle represents the correlations for Chinese sample; the upper triangle represents the correlations for Caucasian sample.

2. * p<.05. ** p<.01

TABLE 7a

Means and Standard Deviations for Emotion and Goal Variables in Study 3

Variable	Young	Old
Valuation of HAP emotions	5.86 (.79)	5.23 (1.27)
Valuation of LAP emotions	4.86 (1.05)	5.36 (1.22)
Influence goal	3.39 (.40)	3.11 (.55)
Adjustment-positive appraisal	3.20 (.48)	3.09 (.52)
Adjustment-lowering aspirations	1.98 (.55)	2.44 (.61)
Promotion goal	3.36 (.46)	2.98 (.52)
Prevention goal	2.91 (.49)	2.87 (.52)

TABLE 7b

Zero-order Correlations for Variables in Study 3

	1	2	3	4	5	6	7
Valuation of HAP emotions		.35**	.41**	.32**	-.19	.16	.19
Valuation of LAP emotions	.40**		.30*	.13	.16	.17	.20
Influence goal	.45*	-.17		.35**	-.18	.33*	.06
Adjustment-positive appraisal	.15	.09	.36**		-.18	.31*	-.02
Adjustment-lowering aspirations	-.09	.32*	-.39*	.10		-.17	.10
Promotion goal	.67**	.06	.45**	.17	-.26		.14
Prevention goal	.17	.17	.01	.13	.47**	.23	

NOTE: 1. The lower triangle represents the correlations for older adults sample; the upper triangle represents the correlations for younger adults sample.
2. * p<.05. ** p<.01

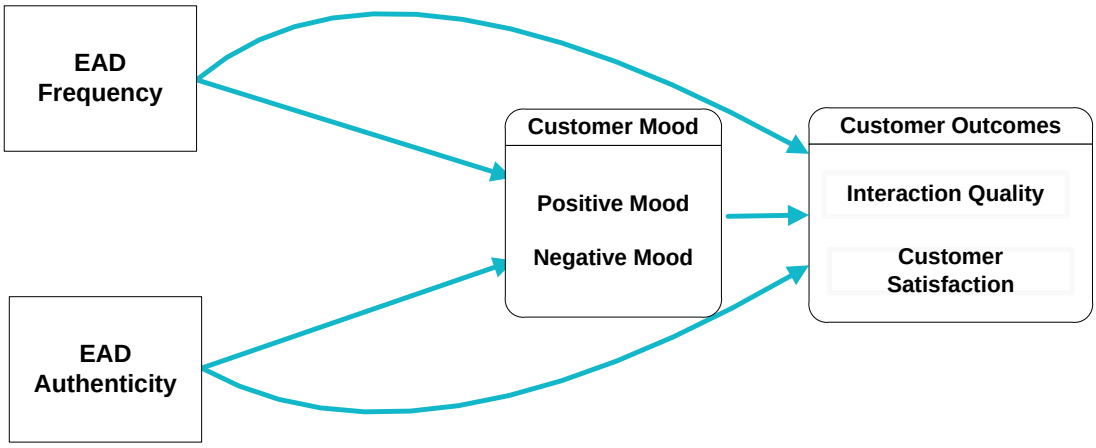
TABLE 8

Summary of Hypotheses and Results in Essay 2

Study	Tested Hypotheses	Main Findings
Study 1	H1: Westerners value HAP emotions more and LAP emotions less than Easterners.	H1 supported.
	H2: The culture-linked differences in affect valuation are mediated by two motivational mechanisms: emphasis on promotion versus prevention goals, and emphasis on influence versus adjustment goals.	H2 partially supported. Individuals' differences in promotion and influence goals mediate culture-linked differences in valuation of HAP emotions.
Study 2	H1	H1 supported.
	H2	H2 partially supported. Similar findings as Study 1.
Study 3	H3: Younger adults value HAP emotions more and LAP emotions less than older adults.	H3 supported.
	H4: The age-linked differences in affect valuation are mediated by two motivational mechanisms: emphasis on promotion versus prevention goals, and emphasis on influence versus adjustment goals.	H4 partially supported. Individuals' differences in promotion and influence goals mediate age-linked differences in valuation of HAP emotions.

FIGURE 1

A: Extant Research Based Model



B: Extended Moderated EAD Effect Model

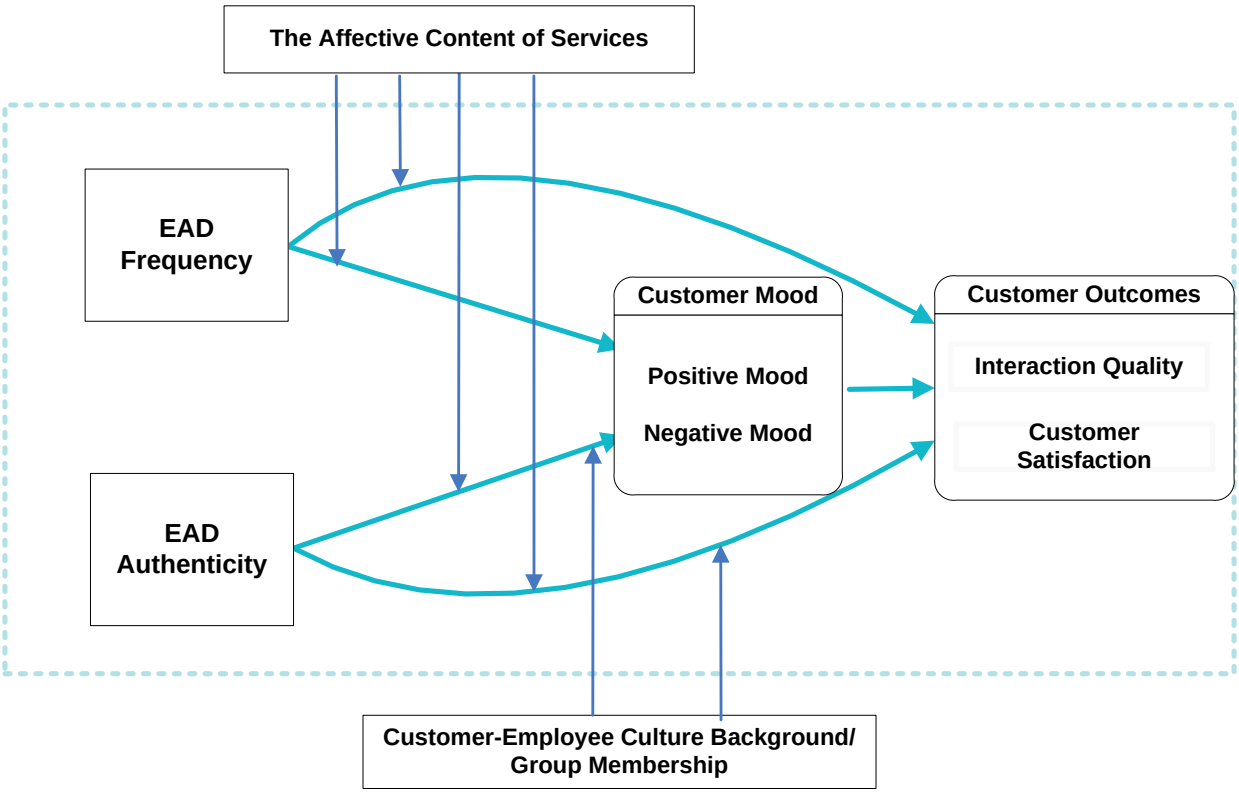
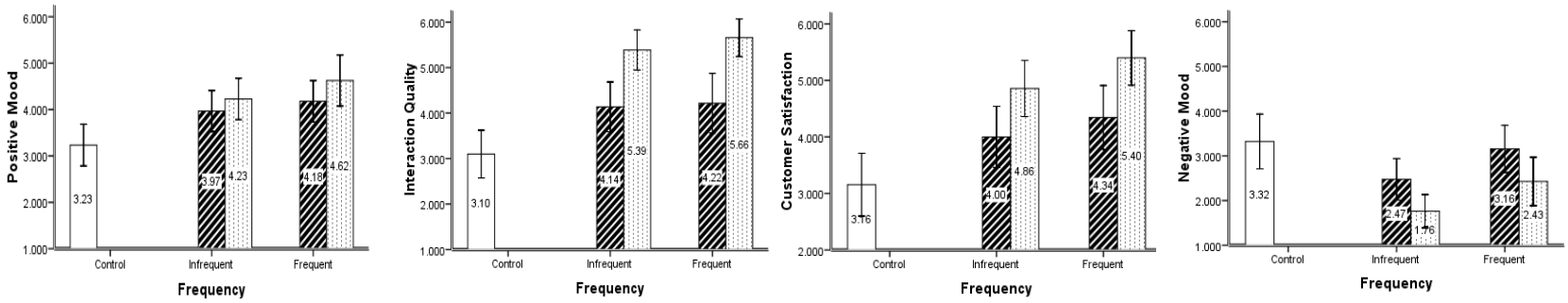


FIGURE 2
Study 1: EAD Effects on Customer Outcomes at Low and High Affective Content Services

Panel A - Low Affective Content Service



Panel B - High Affective Content Service

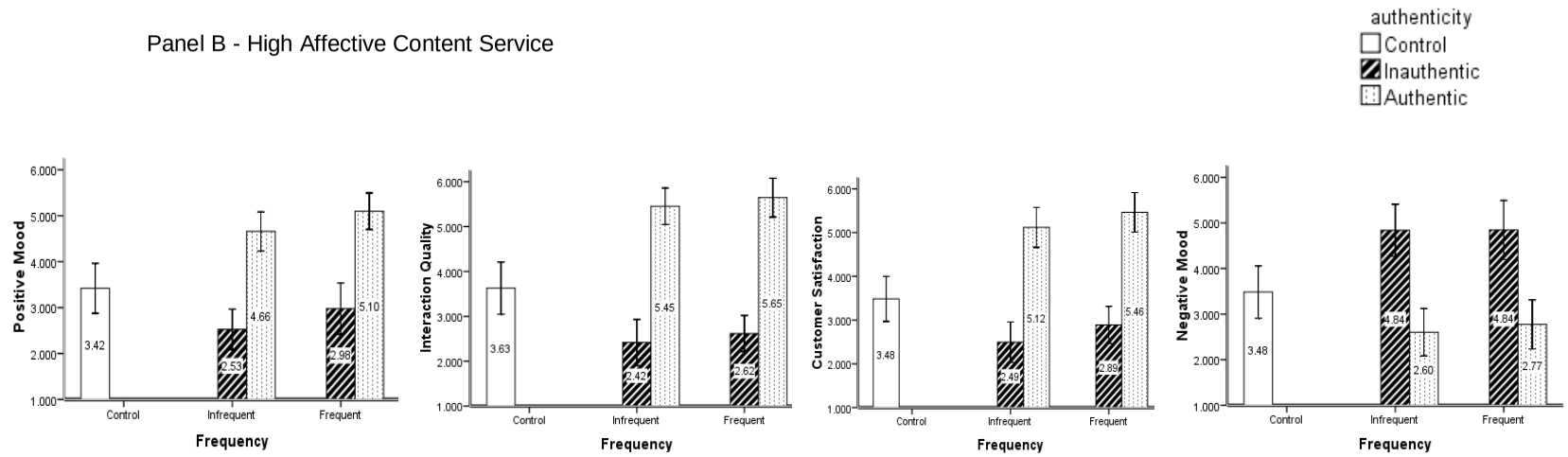


FIGURE 3

Study 1: The Interaction Effect of Service Type and EAD Authenticity on Customer Satisfaction

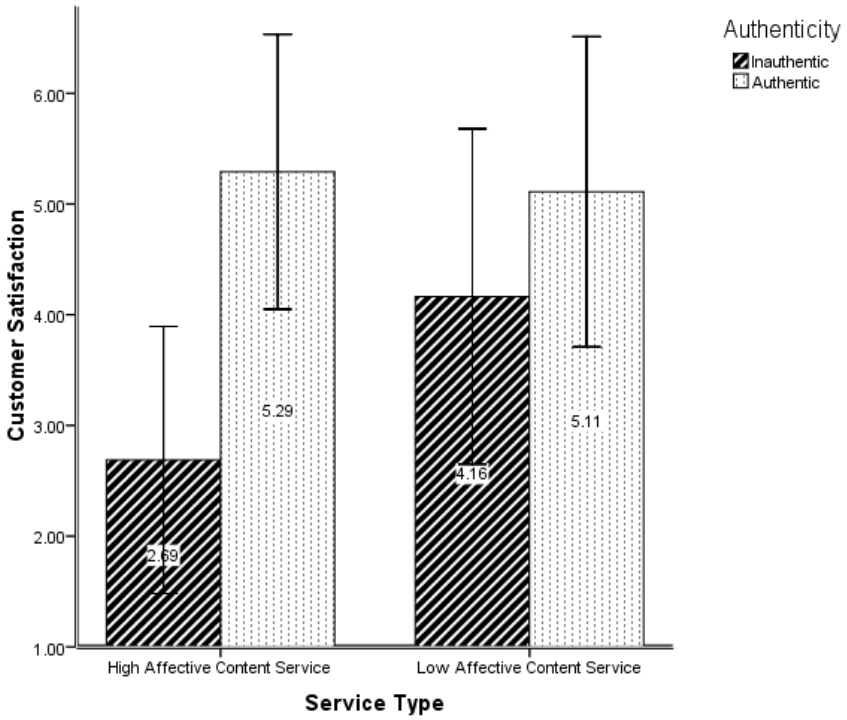
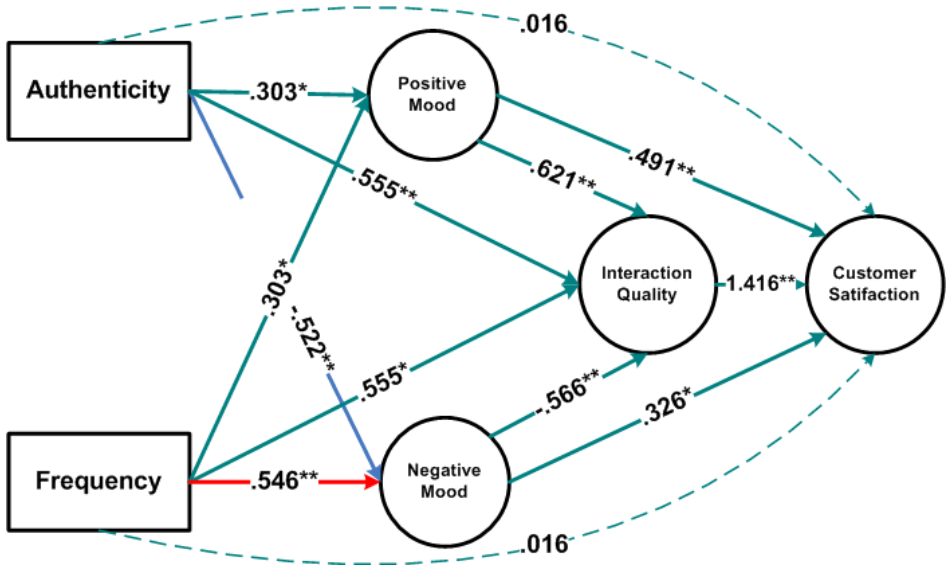


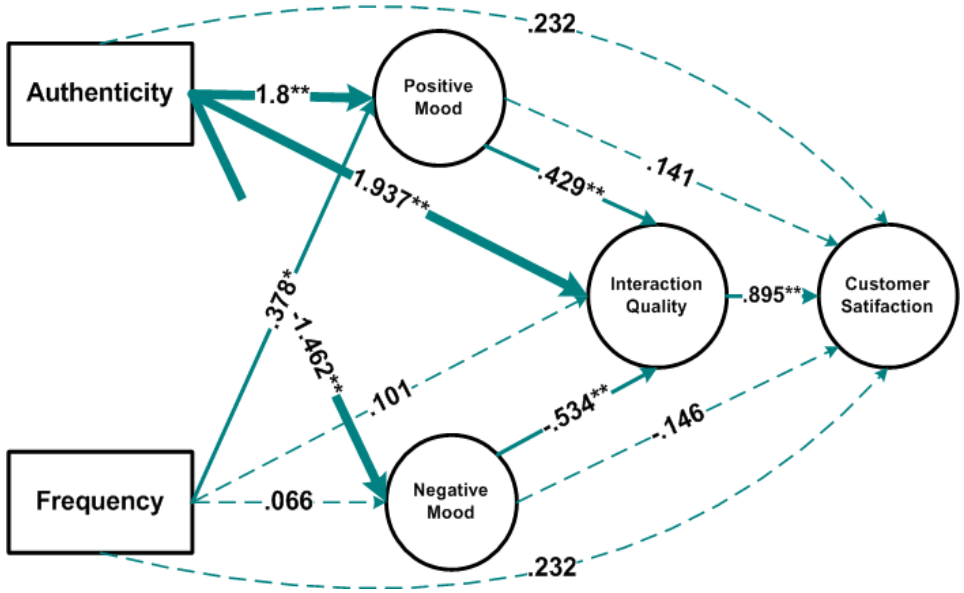
FIGURE 4

Structural Equation Model Tests of EAD Effects in Low and High Affective Content Services

Panel A- Low Affective Content Service



Panel B - High Affective Content Service

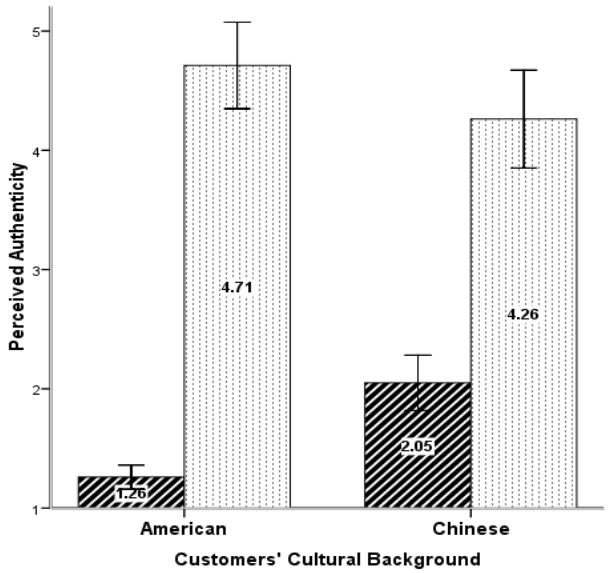


Note:
1. Dashed lines represent insignificant paths; solid lines represent significant paths; bolded lines represent significantly stronger effect of authenticity compared to frequency.
2. Unstandardized coefficients are reported. Coefficients labeled with ** are significant at .01 level; coefficients labeled with * are significant at .05 level. All the analysis was based on one-sided tests.

FIGURE 5

Study 2: The Interaction Effect of Customer/Employee Cultural Group Membership and EAD Authenticity on Customers' Perceived EAD Authenticity

Panel A: In-group Communication



Panel B: Out-group Communication

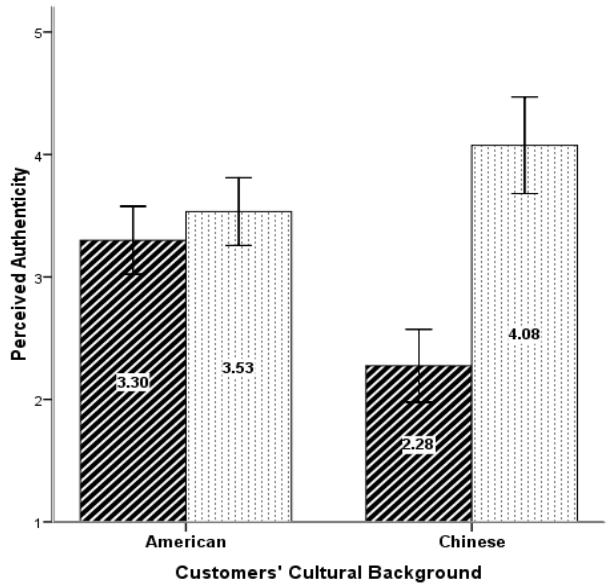


FIGURE 6

Study 2: EAD Effects on Customer Outcomes in In-Group and Out-Group Communications

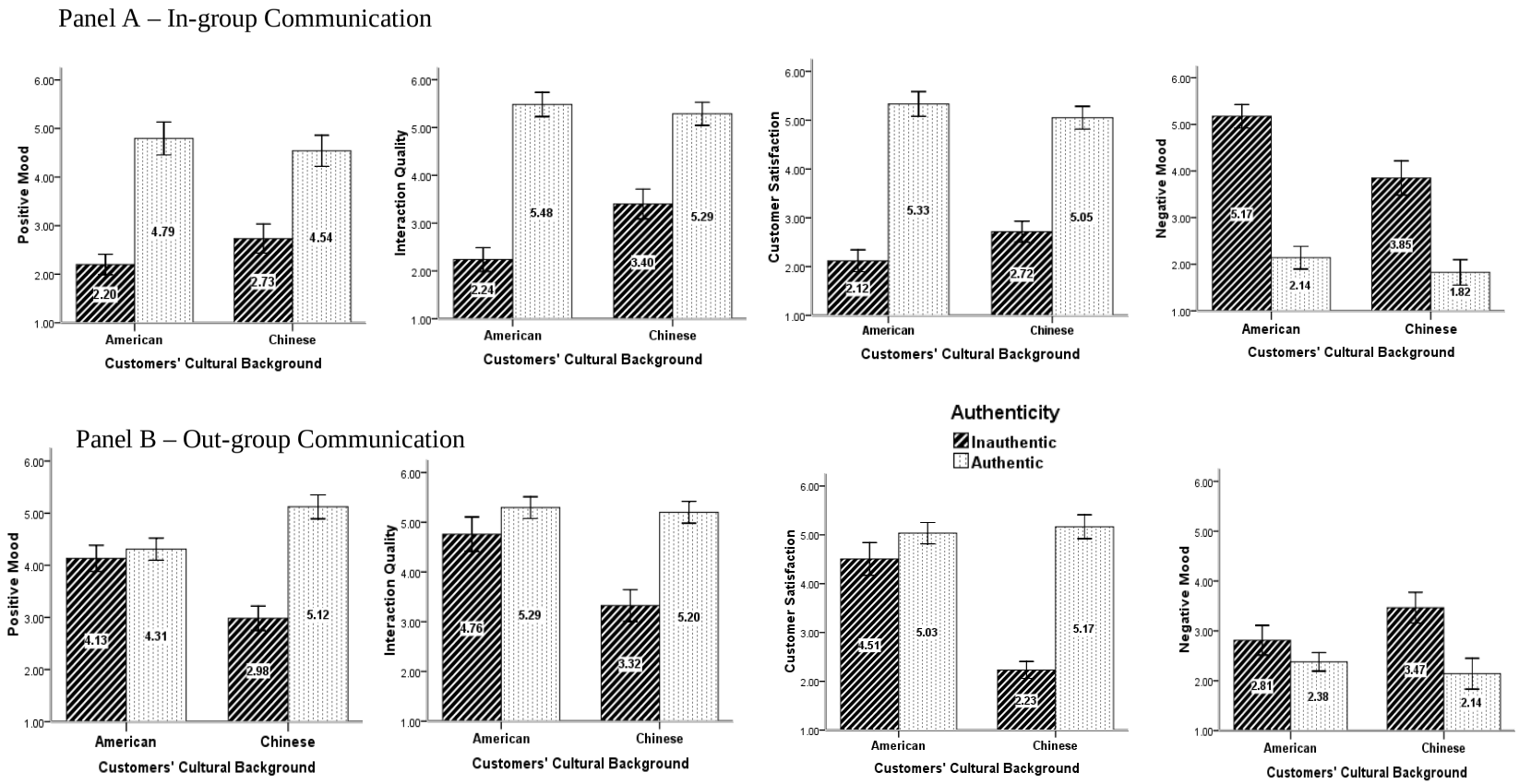


FIGURE 7

Study 1: Culture-based Differences in Valuations of HAP and LAP emotions

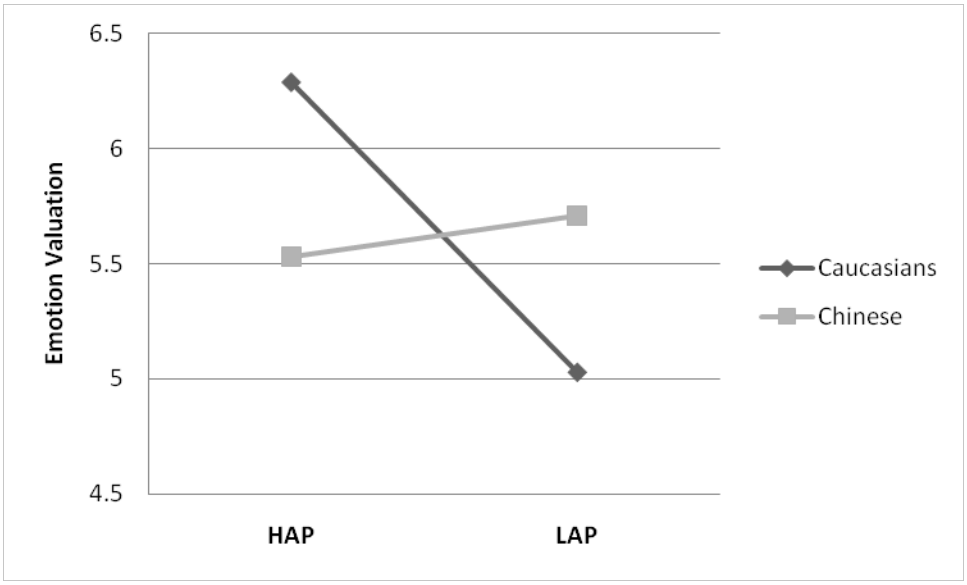
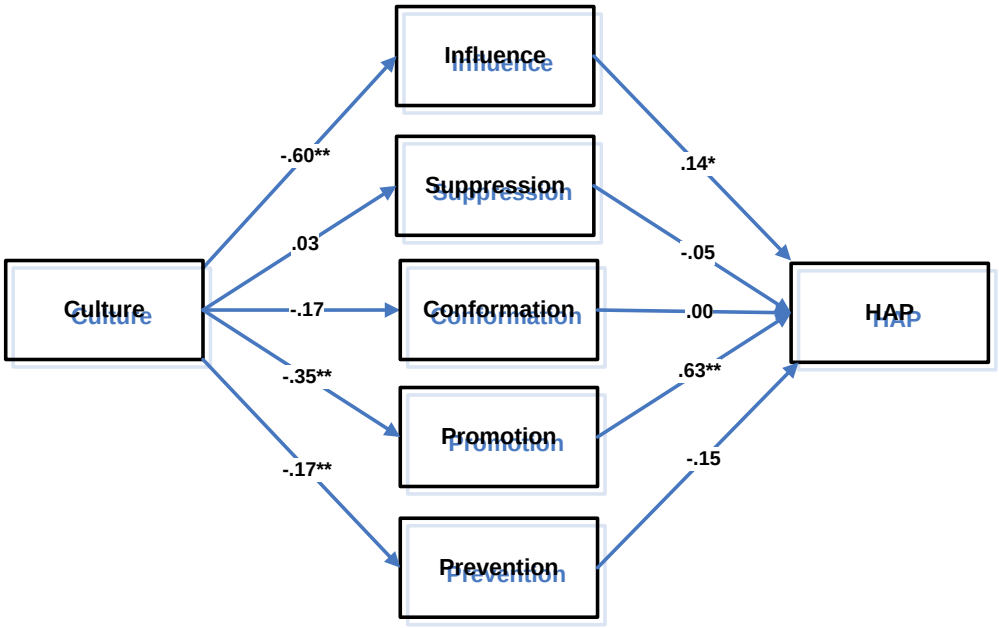


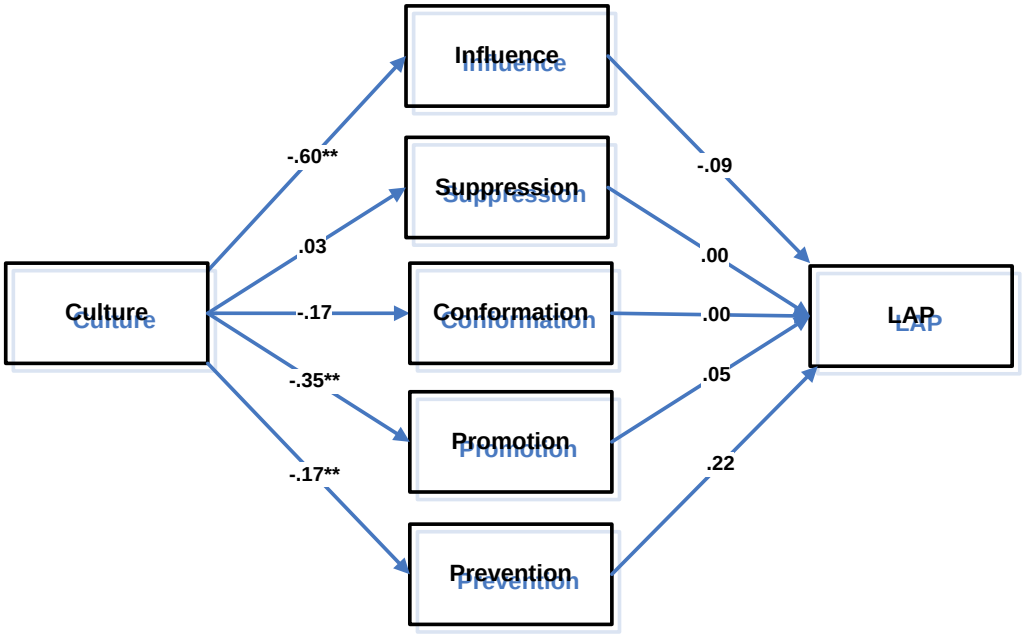
FIGURE 8

Study 1: Multiple Mediation Tests for Cultural Differences in Emotion Valuation

Panel A: HAP Emotions



Panel B: LAP Emotions



* p <.05. ** p <.01.

FIGURE 9

Study 2: Culture-based Differences in Valuations of Music Album Evaluations

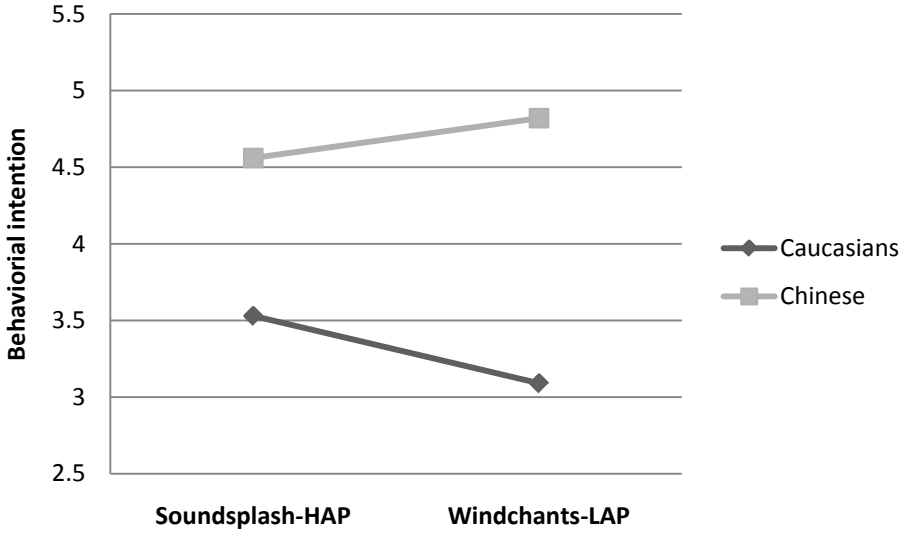
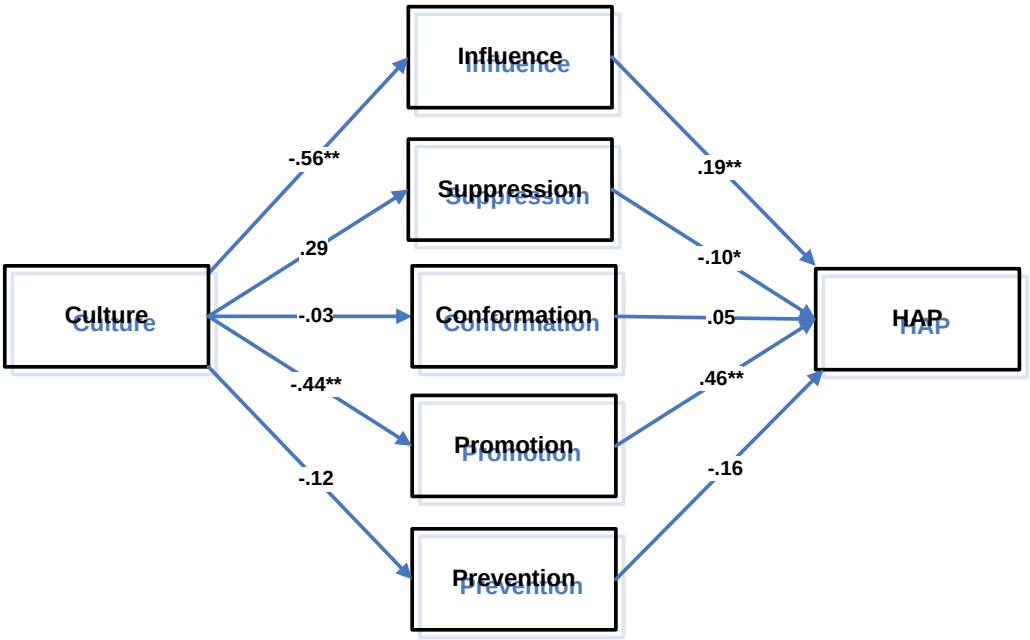


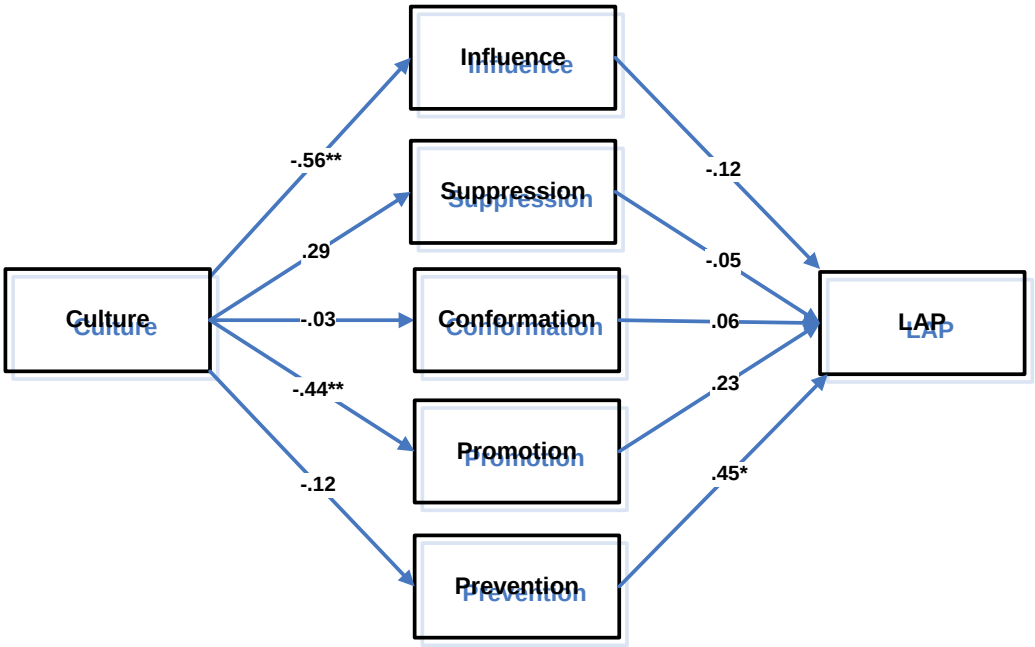
FIGURE 10

Study 2: Multiple Mediation Tests for Cultural Differences in Emotion Valuation

Panel A: HAP Emotions



Panel B: LAP Emotions



* p <.05. ** p <.01.

FIGURE 11

Study 3: Age-linked Differences in Valuations of Travel Agency Ads

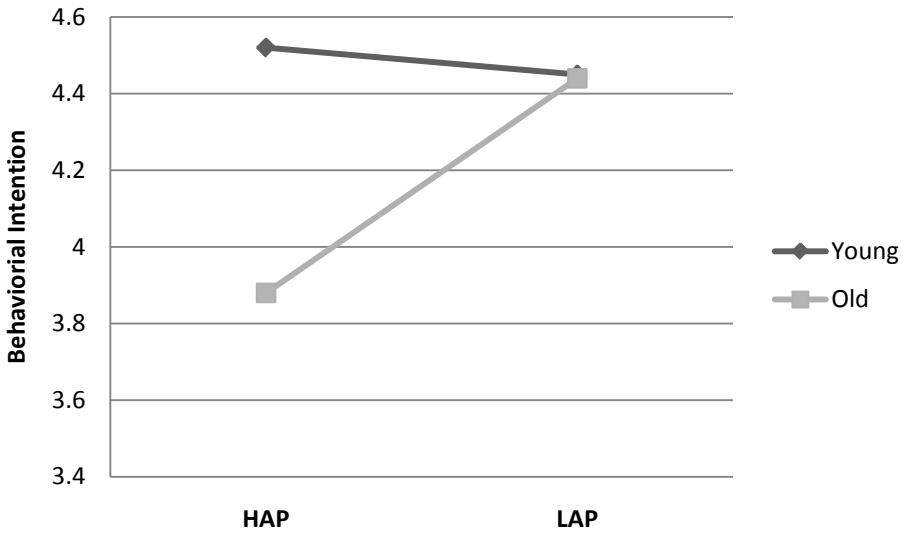


FIGURE 12

Study 3: Age-linked Differences in Valuations of HAP and LAP emotions

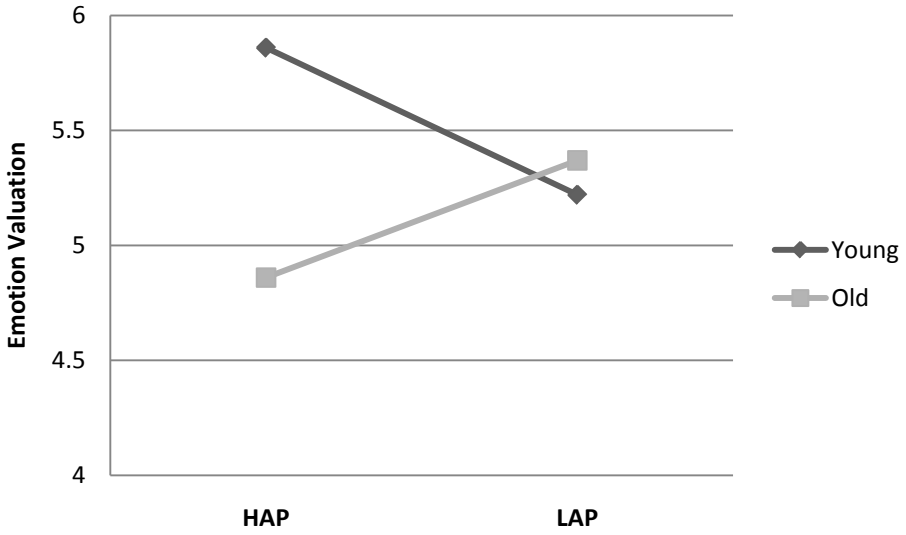
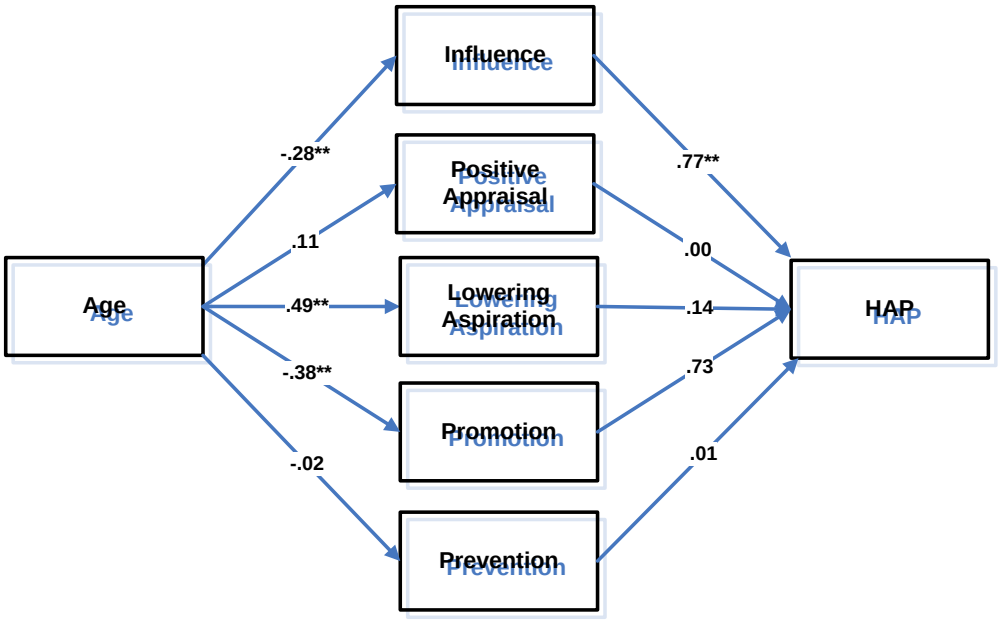


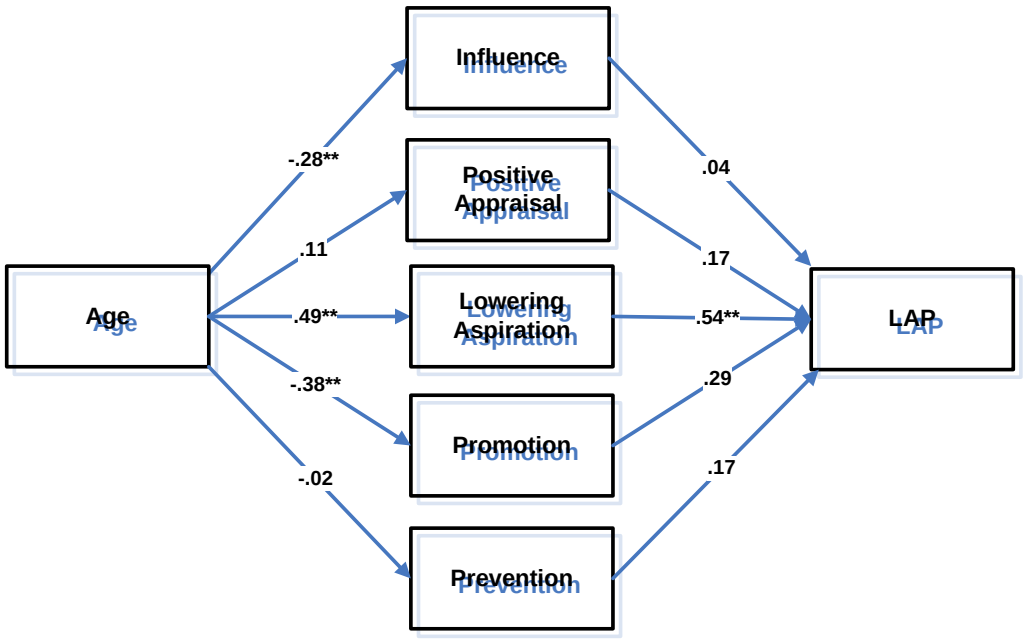
FIGURE 13

Study 3: Multiple Mediation Tests for Age-linked Differences in Emotion Valuation

Panel A: HAP Emotions



Panel B: LAP Emotions



* p <.05. ** p <.01.

APPENDIX A

Manipulation Procedures of EAD Authenticity

During the three-week training process, actors and one author held five group meetings for a total of fifteen hours. In the first meeting, actors were asked to read pertinent materials (e.g., Hochschild 1983, Grandey 2003) and discuss the emotional labor concept with other actors and one of the authors. In the other four meetings, actors were asked to learn and practice the acting strategies. For the authentic EAD conditions, the actor was trained in "deep acting" and encouraged to create genuine positive inner feelings and displays. For example, the video-production group told jokes and shared interesting stories before each shooting to help the actor achieve a positive emotional state. The actor also learned to use Stanislavski's (1965) acting technique to recall their pleasant emotion memories and think of the upcoming customer encounter as a chance to help someone and make the person feel good. For the inauthentic positive display conditions, the actor was instructed to adapt only her outward behavior to the customer's needs but not her inner feelings. The video-production group had arguments or recall unpleasant events before each shooting to help the actor achieve a negative emotional state. The actor was also asked to imagine being tired or impatient at the end of a long work day, but still need to smile in this condition, and she did so by manipulating her face muscles without modifying her thoughts or feelings (surface acting).

APPENDIX B

Measure Reliabilities across Low and High Affective Content Services

Constructs (Scale Sources): Items	Low Affective Content Service			High Affective Content Service		
	Composite reliability	AVE	Cronbach's alpha	Composite reliability	AVE	Cronbach's alpha
Customer Positive Affect (Adapted from Tsai and Huang 2002; Hennig-Thurau et al. 2006)	.880	.711	.871	.954	.875	.954
Y1: Contended						
Y2: Pleased						
Y3: Excited						
Customer Negative Affect	.915	.783	.909	.953	.872	.953
Y4: Annoyed						
Y5: Irritable						
Y6: Bothered						
Interaction Quality (Adapted from Brady and Cronin 2001)	.926	.862	.926	.965	.932	.964
Y7: Overall, I'd say the quality of my interaction with this employee is excellent.						
Y8: I would say that the quality of my interaction with this employee is high						
Customer Satisfaction (Adapted from Hennig-Thurau et al. 2006)	.949	.861	.948	.971	.917	.970
Y9: I am delighted by this service experience.						
Y10: This service experience was a great one.						
Y11: I really liked this service experience.						

* Because the measures are loading invariant, we have the same loading across the two service encounters

APPENDIX C

Measure Invariance Tests

Following Meredith (1993), the following hierarchical levels of invariances are considered across the groups: (1) configural invariance—loading pattern is identical across the groups; (2) weak invariance—loading strength is identical across the groups; (3) strong invariance—the intercepts are invariant across the groups. [Note that these variances are hierarchical, therefore, weak invariance subsumes configural invariance, while strong invariance is built on weak invariance], (4) a class of cross-group invariance constraints, and (5) homogeneity of the latent variances and covariances across the groups (Little, 1997).

Because the statistical tests are sensitive to sample size, we followed Cheung and Rensvold's (2002) recommendation that measurement invariance tests rely on practical rather than statistical fit. Using two commonly used criteria——(1) whether the RMSEA value of each successive model falls within the 90% confidence interval of the less constrained model (Little, Card, Slegers, and Ledoford, 2007), and (2) whether the change in the CFI value of each successive model is less than .01 compared to the less constrained model (Cheung and Rensvold (2002)——we tested the measure invariance by sequentially constraining the factor loadings and intercepts to be equal in the service encounters. As shown in Table C1, the RMSEA (Little 1997) and the CFI tests (Cheung and Rensvold 2002) show little change in model fits, leading to the conclusion that there is a strong metric invariance of the latent construct measures across the two service-types and that the construct interrelationships are identical across these service-types.

TABLE C1

Fit Indices for the Nested Sequence in the Multiple Group Confirmatory Factor Analysis

	χ^2	*df*	*p*	$\Delta\chi^2$	Δdf	*p*	RMSEA	RMSEA 90% CI	NNFI	CFI	Constraint Tenable?
Measurement model tests											
Configural invariance	88.09	76	.288	-.—	—-	.—	.0259	.0-.0585	.997	.998	n/a
Loading invariance[a]	96.76	83	.143	8.67	7	.227	.0295	.0-.0594	.997	.998	YES
Intercept invariance[a]	115.44	90	.037	27.35	14	.017	.0420	.0-.0670	.995	.996	YES
Homogeneity of variances[b]	128.26	94	.011	12.82	4	.000	.0474	.0137-.0707	.993	.994	YES
Homogeneity of variances and covariances[b]	137.85	100	.007	22.41	10	.001	.0529	.0262-.0745	.993	.994	YES

[a] Evaluated with the change in CFI test (Cheung and Rensvold, 2002) and the change in RMSEA Test (Little et al., 2007).
[b] Evaluated with the CFI and RMSEA tests. Base model is the model with intercept invariance.

APPENDIX D

Scale Items and Measure Reliabilities (Essay 2)

Constructs (Scale Sources): Items	Cronbach's alpha					
	Study 1		Study 2		Study 3	
	CA*	CH	CA	CH	Young	Old
Emotion Valuation Scale (Adapted from Affect Valuation Index, Tsai et al. 2006)						
High-Arousal Positive Emotions (HAP):	.90	.67	.78	.73	.81	.92
Enthusiastic, energetic, strong, and excited						
Low-Arousal Positive Emotions (LAP)	.80	.71	.71	.78	.81	.91
Peaceful, quiet, serene, relaxed, calm						
Influence goal Scale -for culture-based comparisons (Adapted from Tsai et al. 2007)	.69	.71	.71	.77		
I appear confident.						
I have an impact on others.						
Others usually listen to what I have to say.						
Suppression Scale-for culture-based comparisons (Adapted from Tsai et al. 2007)	.56	.47	.82	.65		
I keep my thoughts or feelings to myself.						
I do not reveal what I am really like.						
Conformation Scale-for culture-based comparisons (Adapted from Tsai et al. 2007)	.76	.73	.79	.70		
I go along with what others want.						
I do what others want me to do.						

* CA = Caucasians, CH = Chinese

Constructs (Scale Sources): Items	Cronbach's alpha					
	Study 1		Study 2		Study 3	
	CA*	CH	CA	CH	Young	Old
BAS Scale (Adopted from BAS scale-Reward Responsiveness, Carver and White 1994)	.66	.66				
When I'm doing well at something, I love to keep at it.						
When I get something I want, I feel excited and energized.						
When I see an opportunity for something, I get excited right away.						
When good things happen to me, it affects me strongly.						
It would excite me to win a contest.						
BIS Scale (Adapted from BAS scale, Carver and White 1994)	.76	.58				
I feel pretty worried or upset when I think or know somebody is angry at me.						
If something unpleasant is going to happen, I usually get pretty "worked up."						
I feel worried when I think I have done poorly at something.						
I worry about making mistakes.						
Promotion Focus (Adapted from Composite Regulatory Focus scale, Haws et al. forthcoming			.65	.59	.71	.64
I feel like I have made progress toward being successful in my life.						
When I see an opportunity for something, I get excited right away.						
I frequently imagine how I will achieve my hopes and aspirations.						
I see myself as someone who is primarily striving to reach my "ideal self"- to fulfill my hopes, wishes, and aspirations.						

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Constructs (Scale Sources): Items	Cronbach's alpha					
	Study 1		Study 2		Study 3	
	CA*	CH	CA	CH	Young	Old
Prevention Focus (Adapted from Composite Regulatory Focus scale, Haws et al. forthcoming)			.64	.71	.56	.58
I usually obeyed rules and regulations that were established by my important others (my family, my friends, etc.)						
I worry about making mistakes.						
I frequently think about how I can prevent failures in my life.						
I see myself as someone who is primarily striving to become the self I "ought" to be - fulfill my duties, responsibilities and obligations.						
Influence goal scale -for age-based comparisons (Adopted from Primary Control Scale Wrosch, Heckhausen and Lachman 2000)					.72	.78
When things don't go according to my plans, my motto is, "where there's will, there's a way.						
When faced with a bad situation, I do what I can do to change it for better.						
Even when I feel I have too much to do, I find a way to get it all done.						
When I encounter problems, I don't give up until I solve them.						
Adjustment-Positive reappraisal scale -for age-based comparisons (Adopted from Secondary Control-positive reappraisal scale, Wrosch, Heckhausen and Lachman 2000)					.71	.73
I find I usually learn something meaningful from a difficult situation.						
When I faced with a bad situation, it helps to find a different way of looking at things.						
Even when everything seems to be going wrong, I can usually find a bright side to the situation.						
I can find something positive, even in the worst situations.						

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Constructs (Scale Sources): Items	Cronbach's alpha					
	Study 1		Study 2		Study 3	
	CA*	CH	CA	CH	Young	Old
Adjustment-Lowering aspiration scale -for age-based comparisons (Adopted from Secondary Control-lowering aspiration scale, Wrosch, Heckhausen and Lachman 2000)					.72	.80
When my expectations are not being met, I lower my expectations.						
To avoid disappointments, I don't set my goals too high.						
I feel relieved when I let go of some of my responsibilities.						
I often remind myself that I can't do everything.						
When I can't get what I want, I assume my goals must be unrealistic.						

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