Frontline Employees' Display of Fake Smiles and Angry Faces: When and Why They Influence Service Performance

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Abstract

Service firms invest much to ensure authentic and positive emotion displays from frontline employees. And yet, inauthentic positive displays (fake smiles) remain common, and at times, employees even show authentic negative displays (e.g., anger), thereby compromising service performance. Customer reactions to such unwanted emotion displays are heterogeneous, so managers need to know when possible negative effects on service performance are more or less strong. The literature on customer reactions to inauthentic displays is inconclusive and focuses on the moment of service delivery. We shine light on how predelivery choice confidence shapes customer reactions to inauthentic positive displays and demonstrate that customers' high confidence in their service provider choice mitigates the negative effects of display inauthenticity. We present evidence in terms of tipping in a field study and replicate this interaction effect in three experiments. A serial mediation by cognitive displays with authentic negative displays. The latter yield the worst service performance, unmitigated by choice confidence. We provide recommendations on how to ensure authentic positive displays (e.g., recruitment, resources, and rewards), taking into account circumstances that affect choice confidence and market shocks (e.g., the COVID-19 pandemic).

Keywords

emotional labor, authenticity, inauthenticity, emotion display, choice, choice confidence

Service firms invest much to ensure frontline employees present authentic smiles to customers, as they should result in higher service performance (Hennig-Thurau et al. 2006). Firms such as Delta Airlines, McDonald's, and Ritz-Carlton Hotels define emotion display rules that require employees to show real smiles, consider employees' emotion regulation capabilities in recruiting, and offer emotion regulation training (Hochschild 1983; McDonald's 2015; Solomon 2015). And yet, inauthentic positive displays (i.e., fake smiles) remain common, and even authentic negative displays such as anger occur in the service environment (Grandey, Tam, and Brauburger 2002; Scott et al. 2019). Estimates of how often employees' fake emotions range from one to two thirds of all customer interactions (Gabriel et al. 2015; Mann 1999). Negative emotion displays occur daily among frontline employees, such as customer service representatives (15.2%) and medical assistants (25.0%; Scott et al. 2019), and expressions of anger are three times more likely than those of joy (Barsade and O'Neill 2016; Gibson 2008). As a source of fear, anger, and uncertainty, recent market shocks such as the COVID-19 pandemic and the accompanying prospect of unemployment further amplify the need to manage negative and inauthentic employee emotions (Fox 2020; Tan et al. 2020; Voorhees, Fombelle, and Bone 2020). It therefore behooves managers to ask how

important real smiles are and to understand the finer nuances of unwanted displays.

Scholars have devoted considerable attention to the study of positive display inauthenticity (e.g., Hennig-Thurau et al. 2006; Hülsheger and Schewe 2011). Individual studies report detrimental effects of inauthenticity on service performance (e.g., Grandey et al. 2005; Hennig-Thurau et al. 2006). Recent meta-analyses, however, show no generalizable associations between inauthenticity and service performance outcomes (Kammeyer-Mueller et al. 2013; Wang, Seibert, and Boles 2011) and that any such associations "were heterogeneous and varied across samples, which points to the presence of moderator variables" (Hülsheger and Schewe 2011, p. 373). Said variables are the focus of the present research. Initial studies have investigated moderators that focus on the moment of

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service delivery, shedding light on the role of customeremployee dyadic factors (e.g., relationship strength; Chi and Chen 2019), employee-related factors (e.g., task performance; Grandey et al. 2005), and customer-related factors (e.g., inauthenticity detection accuracy; Groth, Hennig-Thurau, and Walsh 2009). Research on service delivery-related moderators, however, neglects the predelivery phase (Liljander and Mattsson 2002), although the importance of this phase is increasingly recognized (for a review, see Puccinelli et al. 2009).

We seek to rectify this research gap in three ways. First, we investigate the moderating role of predelivery choice confidence (hereafter, choice confidence) in customer reactions to inauthentic frontline employee emotions. Because the predelivery phase generally culminates in the choice of a service provider (Tsiotsou and Wirtz 2014), choice confidence reflects customers' evaluation of the choice of a service provider and serves as a summary judgment of the predelivery phase (Peterson and Pitz 1988). Across four studies, we show that customers react significantly less negatively to inauthentic positive displays in terms of satisfaction and tipping when they experience high choice confidence. We therefore not only address recent calls for research to "[i]dentify the boundary conditions of emotional labor on performance" (Grandey and Gabriel 2015, p. 340; Yagil and Shnapper-Cohen 2016) but also foster theoretical development with regard to display inauthenticity by shedding light on the previously overlooked predelivery phase.

Second, we contribute to the literature on display inauthenticity and emotions as social information (EASI; van Kleef 2014) by investigating the mechanism by which inauthentic positive displays affect customers. According to the EASI model, emotion displays from frontline employees influence customer behavior by revealing employees' affective experiences and intentions toward them (Keltner and Haidt 1999). We demonstrate why inauthenticity influences service performance differently depending on customer choice confidence. Our results suggest that for customers with relatively low choice confidence, inauthenticity increases cognitive dissonance and decision regret, which ultimately affects service performance negatively. We provide an important extension of EASI theory by showing that cognitive and affective factors work together in explaining how inauthenticity influences customers (van Kleef 2014), thereby adding to the body of literature on inauthenticity mechanisms (Grandey and Gabriel 2015).

Third, we contribute to the literature on display inauthenticity and negative displays by testing the effects of inauthentic positive displays relative to authentic negative displays (e.g., anger). As previous studies have focused on the effects of inauthenticity and negative displays independently (e.g., Du, Fan, and Feng 2011; Hennig-Thurau et al. 2006), we shed light on whether it is better to present a fake smile than an authentic yet negative display (i.e., anger). Our findings demonstrate that authentic negative displays result in significantly lower service performance compared to inauthentic positive displays. We also show that choice confidence does not mitigate the negative effects of authentic negative displays, further underlining the harmful effect of negative displays.

In addition to these theoretical contributions, our research has practical implications for service managers. We recommend increasing positive display authenticity and reducing unwanted displays through investments in service input (e.g., making authenticity a recruitment factor), process (e.g., giving employees work resources such as autonomy, breaks, and coworker support), and output (e.g., "Friendliest Employee of the Month" awards). Our findings show that low predelivery choice confidence exacerbates the negative effect of inauthentic displays. Hence, in circumstances where customer choice confidence is eroded, such as in the face of a new competitor next door, negative customer reviews, or when prices increase (cf. Studies 2 to 4), companies should increase their investments in authentic positive displays (e.g., allow more breaks). Recent market shocks such as the COVID-19 pandemic impact both employee positive emotion authenticity and customer choice confidence negatively, leading to a reduction in customer satisfaction and tips. Managers should consider these disruptive events in their employee management and, given the importance of tips for frontline employees' economic wellbeing, avoid passing down financial hardship to employees and, where possible, offset lost tips.

Conceptual Background and Hypotheses

Display Inauthenticity

Frontline employees are commonly prescribed to display positive emotions when interacting with customers (Pugh 2001), even if they often do not experience the required positive emotions (Mann 1999). Employees may therefore at times present an unregulated negative display to customers, such as anger (Grandey, Tam, and Brauburger 2002; Liu, Chi, and Gremler 2019). Significantly more common, however, are inauthentic positive displays (i.e., fake smiles; Gabriel et al. 2015). Inauthentic positive displays result from surface acting, through which employees modulate their expressed emotions without altering their experienced emotions (Grandey 2000). In contrast to inauthentic positive displays, employees may also show authentic positive displays through deep acting, in which employees change their experienced emotions in order to comply with organizational display rules (Hochschild 1983). Commonly employed methods include attentional deployment, which refers to a focus on the positive aspects of a situation, and cognitive change, which refers to the attachment of positive meaning to a situation (Grandey 2000). In this case, a waiter may actually display a smile that is perceived as natural.

According to the EASI model (van Kleef 2014), socially expressed employee emotions provide useful information for customers (Keltner and Haidt 1999; van Kleef, Homan, and Cheshin 2012). More specifically, the EASI model predicts that authentic and inauthentic emotion displays will evoke distinct customer reactions (Wang et al. 2017). It has been theorized, but not empirically confirmed, that these reactions may vary depending on what preceded the service interaction (van Kleef, Homan, and Cheshin 2012); that is, customers naturally integrate information from socially expressed emotions with other information about the service that preceded the interaction, such as whether the customer felt confident when choosing the service provider. For instance, a customer who is faced with an inauthentic emotion display from a waiter (e.g., a fake smile) and had little confidence in their choice of café to start with may experience more dissonance about their choice and be less satisfied than a customer with high choice confidence. The present research introduces choice confidence as a key factor in customers' predelivery experiences influencing their interpretation of display inauthenticity.

Choice Confidence

Choice confidence is defined as the degree of certainty customers hold about the optimality and appropriateness of their choice of service provider before service delivery (Heitmann, Lehmann, and Herrmann 2007; Parker, Lehmann, and Xie 2016). After opting for a given service provider, customers hold a certain degree of choice confidence (Desender, Boldt, and Yeung 2018). Choice confidence is determined by the advantages and disadvantages of the chosen versus unchosen service providers (Tsiros and Mittal 2000). For instance, when customers can clearly distinguish that one service provider dominates the other available service provider(s) (Lurie 2004), customers likely face little to no trade-off decisions, thus allowing them to choose the best service provider available and experience high choice confidence (Chernev 2006). However, when available service providers are similarly attractive so that no service provider is perceived as dominant (Chernev 2006), customers are faced with a trade-off decision (Lurie 2004). In the latter situation, making an optimal choice is difficult, resulting in low choice confidence (Andrews 2013).

Research Hypotheses

We argue that customers with relatively high choice confidence are generally less likely to seek and absorb new information about their choice such that service performance (Hypothesis 1) and cognitive dissonance (Hypothesis 2) are only negatively affected by display inauthenticity when choice confidence is low. More specifically, we expect that the serial mediation of cognitive dissonance and decision regret explains the interaction effect of choice confidence and display inauthenticity (Hypothesis 3; see Figure 1 for an overview). We conceptualize cognitive dissonance as a psychological state of conflicting beliefs, opinions, and knowledge (Festinger 1957), as when a choice cognition ("I have chosen this service provider over others because I thought it is good") is inconsistent with a cognition about the actual experience of the chosen service ("This service provider is not good"; Sweeney, Hausknecht, and Soutar 2000). Decision regret, on the other hand, is defined as a negative emotional state that customers experience when the outcomes of a choice compare unfavorably to (potential)



Figure 1. Conceptual framework.

outcomes of an unchosen alternative (Zeelenberg and Pieters 2007). Following previous research (Huang and Dai 2010; Hülsheger et al. 2015), service performance is conceptualized as customers' appraisal of frontline employee output based on objective (e.g., tips) and subjective performance indicators (e.g., customer satisfaction).

This research draws on cognitive dissonance theory (Festinger 1957) to explain why customers with relatively high choice confidence react less negatively to inauthentic displays. Consistent with EASI theory (van Kleef 2014), cognitive dissonance theory allows us to predict both cognitive and affective mechanisms behind customers' reactions to inauthentic displays but adds further specificity by highlighting cognitions as a driver of affect. Specifically, cognitive dissonance theory proposes that after making a choice, such as a choice for a service provider, customers strive to reconcile that choice with potentially dissonant information about the choice (Greenwald 1969), such as the quality of emotion displays from frontline employees.

We argue that when customers have high choice confidence, search for new information after the choice is limited, and thus, only service experiences that clearly clash with customers' choice confidence create dissonance (Desender, Boldt, and Yeung 2018; Heitmann, Lehmann, and Herrmann 2007). Consequently, information that supports the choice of service provider, like an authentic smile from an employee, will not affect dissonance and service performance. We also expect little to no effect on dissonance and service performance for inauthentic smiles, as they are not clearly contrary to customers' high choice confidence because inauthentic positive displays contain ambiguous cues (e.g., a smile of the mouth unaccompanied by movements of muscles surrounding the eyes; Calvo, Fernández-Martín, and Nummenmaa 2012; Krumhuber, Manstead, and Kappas 2007), which are ignored or dismissed when choice confidence is high. Thus, under the condition of high choice confidence, there should be little cognitive dissonance with both authentic positive and inauthentic positive displays. However, when new information provides a clear contrast to customers' high choice confidence, as when an employee expresses genuine anger, we do not expect high choice confidence to protect further against dissonance.

By contrast, when customers have low choice confidence, they actively search for new information that supports their choice to reduce uncertainty (Desender, Boldt, and Yeung 2018; Heitmann, Lehmann, and Herrmann 2007). Authentic positive displays will therefore affect neither dissonance nor service performance (Hennig-Thurau et al. 2006). However, when new information conflicts with customers' decisions, dissonant cognitions emerge (e.g., "I wonder whether I have made the right choice") and service performance is reduced. Employees' inauthentic positive displays contain ambiguous cues (Calvo, Fernández-Martín, and Nummenmaa 2012; Krumhuber, Manstead, and Kappas 2007), which due to their inconsistency raise concerns about the quality of the customers' decisions. Likewise, employees' authentic negative displays (e.g., anger) signal that the customer's choice was not good, resulting in dissonance and reduced service performance. We thus expect an effect of inauthentic positive emotion displays (but not for authentic positive and authentic negative displays) when choice confidence is relatively low. Thus, we propose:

Hypothesis 1: Choice confidence moderates the effect of display inauthenticity on service performance, in that customers with high choice confidence will exhibit a weaker negative effect of display inauthenticity on service performance than customers with low choice confidence.

In explaining how inauthenticity differentially affects service performance depending on choice confidence, we reference cognitive dissonance and decision regret as key factors. Customers may experience cognitive dissonance when a choice (e.g., for a hotel) is inconsistent with subsequent information (e.g., employees' inauthentic positive displays) and there is a lack of confidence in a chosen option (e.g., when alternative hotel choices were similarly appealing). Research on how low (vs. high) choice confidence generates dissonance in the face of new information supports our theoretical endeavors (Desender, Boldt, and Yeung 2018; Greenwald 1969; Heitmann, Lehmann, and Herrmann 2007). Accordingly, we posit that when customers with low (vs. high) choice confidence confidence encounter inauthentic positive displays, cognitive dissonance increases:

Hypothesis 2: Choice confidence moderates the effect of display inauthenticity on cognitive dissonance, in that customers with high choice confidence will exhibit a weaker positive effect of display inauthenticity on cognitive dissonance than customers with low choice confidence.

Dissonance between different beliefs results in negative affective experiences, which are tied to, but separate from, dissonant cognitions (Devine and Elliot 1994; Festinger 1957; Powers and Jack 2013). These negative affective experiences are commonly attributed to external entities such as a service interaction (Heitmann, Lehmann, and Herrmann 2007; Zanna, Higgins, and Taves 1976). While cognitive dissonance literature references numerous divergent affective experiences, such as anger (Sweeney, Hausknecht, and Soutar 2000) and discomfort (Devine and Elliot 1994), we focus on decision regret. Decision regret is conceptualized as an outcome of unfavorable comparisons between chosen and unchosen options (Zeelenberg and Pieters 2007). This dynamic is uniquely appropriate for our case, given that the discrepancy between chosen and unchosen options is also the source of dissonance in this research. Therefore, we propose that an increase in dissonant cognitions (e.g., "I wonder whether I have made the right choice") may also increase customer regret (e.g., "My choice was a regrettable decision").

In turn, the step from regret to service performance is a small one. Decision regret is commonly conceptualized as an antecedent of satisfaction (Oliver 2010; Tsiros and Mittal 2000) and is known to negatively influence service performance due to its aversive nature (Tsiros and Mittal 2000; Zeelenberg and Pieters 1999). The effect of regret on satisfaction reflects a shift in reference points. Reference points that are external to the customer (i.e., regret based on comparisons between chosen options and foregone alternatives) influence internal reference points (i.e., satisfaction with the chosen alternative; Tsiros and Mittal 2000). Thus, for customers with relatively low choice confidence, we expect that inauthenticity increases the level of dissonance and, hence, decision regret, which ultimately impacts service performance. Thus, we propose:

Hypothesis 3: Cognitive dissonance and decision regret serially explain the differential effect display inauthenticity has on service performance for customers with different levels of choice confidence, in that customers with high choice confidence will exhibit a weaker negative indirect effect of display inauthenticity through cognitive dissonance and decision regret on service performance than customers with low choice confidence.

Overview of Studies

Next, the hypotheses are empirically tested. Across four related studies, we test whether customers with high choice confidence react less adversely to inauthentic positive displays by frontline employees. In Study 1, we establish the moderating effect in a dyadic field study. We used two independent information sources (customers and employees) to measure choice confidence and display inauthenticity, predicting service performance using an objective indicator (i.e., tipping; Hypothesis 1). In Study 2, the moderating effect of choice confidence is replicated in an experimental setting in which both inauthenticity and choice confidence are manipulated and a subjective performance indicator (i.e., customer satisfaction) is used. Study 3 offers another replication and highlights that inauthentic positive displays yield higher service performance than authentic negative displays (i.e., anger). This study also demonstrates that when managers increase choice confidence to mitigate inauthenticity effects, they do not significantly reduce satisfaction in situations where employees display authentic negative emotions. In Study 4, we conceptually replicate the results and show the underlying psychological process of the moderating effect on service performance through cognitive dissonance and decision regret (Hypotheses 2 and 3).

Study I: Field Study

Study 1 investigated whether frontline employees who display inauthentic positive emotions receive more tips from customers with relatively high choice confidence (Hypothesis 1). Tipping is an objective measure of service performance (Hülsheger et al. 2015), denoting the customer's performance appraisal in which they voluntarily reward the employee's performance beyond the contracted service price (Lynn, Zinkhan, and Harris 1993). In designing the study, we followed calls for dyadic field research on service interactions between customers and employees as the unit of analysis (Groth et al. 2019).

Procedure and Participants

We cooperated with a café in Southern Germany that had positive emotion display rules in place as part of their normal operations; that is, café management had instructed employees to smile when interacting with customers. Yet management did not specify whether smiles should be authentic, thus ensuring a high fit between the café and the research purpose, as inauthentic emotion displays were likely to occur.

Customers and employees completed matched surveys at the end of the service delivery (Lechner and Mathmann 2020). We obtained dyadic responses from seven female employees and one male employee, who were each instructed to distribute 35 surveys to customers within the five workdays of data collection. One hundred and four customers participated (64.40% female; 255 were approached in total, 151 did not complete the survey). Our response rate of 40.78% is in line with related literature (Hulland, Baumgartner, and Smith 2018). No cases were excluded from analysis. On average, customers were 54.20 years old (standard deviation [*SD*] = 16.64) and employees were 43.88 (*SD* = 8.62) years old. The average number of surveys per employee was 13 (*SD* = 4.03).

To minimize interference with the natural service setting, employees invited customers to complete the survey after service delivery (i.e., after paying and tipping), which is common in dyadic studies (Groth, Hennig-Thurau, and Walsh 2009). Employees were instructed to collect data both during slow and busy hours of operation (Grandey et al. 2005). They were further requested to invite every customer who was not in a hurry to participate in the survey and ensured that customers only participated once by asking about prior participation in the survey. Both parties completed the survey in the absence of the other party as well as café management and placed the sealed survey in a secured box at the café's exit (e.g., Chi et al. 2011), which was only accessible to the lead author. The survey ensured customers and employees of their anonymity and data confidentiality. To identify the dyads, customer and employee surveys contained matched codes.

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Measures

The customer survey measured choice confidence, tipping, café busyness, group size, patronage frequency, and demographics. We measured choice confidence by adapting an established 7-point, three-item scale which asked customers to recall their experienced choice confidence in choosing that particular café among other cafés (M = 5.52 SD = 1.49, $\alpha =$.91; Heitmann, Lehmann, and Herrmann 2007). Customers next stated their bill total and tip, which was converted to a tip percentage to control for bill size differences (M = .14, SD =.08; Bujisic et al. 2014; Chi et al. 2011). The survey also included one-item measures of café busyness (M = 2.94, SD= .92), group size (M = 2.30, SD = 1.00), and patronage frequency (M = 32.17, SD = 71.20), which are important drivers of tipping and thus served as control variables in our study (Lynn, Zinkhan, and Harris 1993).

As common in dyadic studies (Chi and Chen 2019; Groth, Hennig-Thurau, and Walsh 2009), the employee survey contained a measure of display inauthenticity (Grandey 2003). Café management requested no multiitem measures in the employee survey to minimize employees' workflow interference (cf. Troebs, Wagner, and Herzog 2020). A 7-point measure of display inauthenticity was employed (M = 3.71, SD =2.03; Groth, Hennig-Thurau, and Walsh 2009). As employees had multiple contact points with each customer (e.g., taking and delivering orders), they were instructed to report display inauthenticity across all contact points with the particular customer (Groth, Hennig-Thurau, and Walsh 2009). Table 1 displays descriptive statistics and correlations. We found support for discriminant validity of our model variables (all HTMTratios < .85). For measures of this study, see the Web Appendix.

Results

As employees completed multiple dyadic surveys, the assumption of independent observations in ordinary least squares regression may have been violated, causing biased standard errors (*SEs*; Raudenbush and Bryk 2002). To test for nonindependence, we calculated the intraclass correlation (ICC) of tip percentage using the ICC formula for unequal group sizes as put forth by Snijders and Bokser (2012). The ICC was .01. Cohen et al. (2003) showed that small ICCs such as .01 can substantially inflate α errors and thus invalidate statistical inference obtained with ordinary least squares regression. Thus, a multilevel analysis was applied using Mplus 7 (Muthen and Muthen 2012), as converging research supports the use of multilevel modeling for nested data with few clusters (Huang 2016; McNeish and Stapleton 2016).

A random intercept, two-level model was estimated using maximum likelihood estimation, which is robust against nonnormality and recommended for multilevel models with unequal group sizes (Muthen and Muthen 2012; Snijders and Bokser 2012). The model regressed tip percentage on display

 Table I. Descriptive Statistics, Reliabilities, and Correlations.

Variable	М	SD	Cronbach's α	Correlations	
				I	2
Study I					
I. Tip percentage	0.14	0.08	_		
2. Display inauthenticity	3.71	2.03	_	.07	
3. Choice confidence	5.52	1.49	.91	09	03
Study 2					
I. Customer satisfaction	5.77	1.06	.90		
Study 3					
I. Customer satisfaction	2.98	1.72	.94		
Study 4					
I. Customer satisfaction	5.55	1.47	.97		
2. Cognitive dissonance	2.64	1.83	.94	60	
3. Decision regret	2.49	1.61	.82ª	72	.73

^aSplit-half reliability is reported as measure contains only two items.

inauthenticity, choice confidence, their interaction, and two controls.¹ All predictors were Level 1 variables, which were group-mean-centered before analysis to remove any employee-level variation from the Level 1 variables (Enders and Tofighi 2007). Thus, the hierarchical model controlled for the effects of employees at Level 2 (Chi et al. 2011; Hülsheger et al. 2015).

The main effects of display inauthenticity ($\beta = .01, SE = .08$, *ns*) and choice confidence were nonsignificant ($\beta = -.10$, SE = .13, ns). Supporting Hypothesis 1, there was a significant interaction between choice confidence and display inauthenticity $(\beta = .20, SE = .06, p < .05)$. Using the tool described in Preacher, Curran, and Bauer (2006) to probe the interaction, two regions of significance were identified. For customers with low levels of choice confidence up to a (group-mean centered) value of -1.02, display inauthenticity yielded a negative effect on tip percentage ($\beta = -.20$, SE = .10, t = -1.96, p = .05). A total of 23.10% of all customers reported choice confidence values below -1.02. For customers with high choice confidence levels (i.e., greater .91), however, display inauthenticity yielded a positive effect on tip percentage ($\beta = .19$, SE = .10, t = 1.96, p = .05). A total of 36.50% of all customers reported choice confidence values above .91. Figure 2 displays the interaction.²

Study 2: Experimental Manipulations of Choice Confidence and Display Inauthenticity

Study 1 showed that customers with high choice confidence reacted less adversely to inauthentic positive displays by frontline employees in terms of tipping. Study 2 replicated Study 1 but experimentally manipulated choice confidence and display inauthenticity to provide support for the causal nature of the moderation effect.

Procedure and Participants

We used a 2 (choice confidence: high vs. low) \times 2 (display inauthenticity: inauthentic positive vs. authentic positive)

randomized between-subjects design and relied on an established series of photos to manipulate display inauthenticity (Lechner and Paul 2019).

The sample consisted of 128 complete and usable cases from the German Clickworker panel. One case was excluded from analysis, which had no effects on the results, as one participant completed the study twice. This left us with a final sample size of 127 ($M_{\text{age}} = 46.05$; $SD_{\text{age}} = 15.02$; 53.50% female).

The scenario asked participants to imagine planning a romantic weekend trip with their partner. To find a hotel, participants used a travel review site. After reviewing the available hotels and making a choice, participants completed an unrelated filler task (i.e., reading a text; Janiszewski 1988). Next, they saw a series of pictures of a hotel check-in, showing the hotel lobby and a receptionist greeting and checking in the guest, then handing over the room key. The pictures were presented on separate pages and were complemented by short texts describing the situation. Participants then completed the survey and were debriefed after completion.

Experimental Manipulations

Choice Confidence

We manipulated choice confidence by including a dominant (high choice confidence) or nondominant hotel (low choice confidence) in the choice set from which participants selected the hotel (Chernev 2006, Study 4). Hotels were described by a placeholder name to prevent brand and familiarity effects, the hotel's star rating, average customer rating and number of customer reviews, distance to the city center, and price. All attributes had three or four levels (Botti and McGill 2011). As in previous research (e.g., Greifeneder, Scheibehenne, and Kleber 2010), the choice set was created by randomly combining the various attribute levels. We obtained nine alternatives and designed one additional alternative to manipulate choice confidence. In the high choice confidence condition, the dominant hotel was better in every attribute (e.g., superior customer ratings and lower prices; Lurie 2004). In the low choice confidence condition, the added alternative was similar to the other hotels, so that no alternative dominated all other alternatives.

Display Inauthenticity

We used validated photos to manipulate display inauthenticity (Lechner and Paul 2019). The photo series was shot by a professional photographer in a local midrange hotel. A trained female actress regulated her emotions in front of the camera using surface and deep acting (Hennig-Thurau et al. 2006). In the inauthentic condition, the actress showed a pronounced asymmetric smile, a clear indicator of the expression of faked happiness (Skinner and Mullen 1991). In the authentic condition, the actress expressed genuine happiness (Lechner and Paul 2019): Her smile was pronounced, symmetric, and included activation of the muscles surrounding the eyes. Apart from differences in smile asymmetry, all remaining facets of the emotional display were held constant (e.g., teeth showing



Figure 2. Tip percentage as a function of choice confidence and display inauthenticity, Study 1. *Note.* The graph is based on a floodlight analysis (Spiller et al. 2013) and illustrates the effect of display inauthenticity on tip percentage for any choice confidence value (group-mean-centered). The gray lines represent the confidence intervals and the dashed lines represent the *J*–*N* points, which are obtained at -1.02 and 0.91 (group-mean-centered).

when smiling). The procedure and all measures of this study appear in the Web Appendix.

Measures

Customer satisfaction was measured with an established 7point, four-item scale, with higher values indicating stronger agreement (M = 5.77, SD = 1.06, $\alpha = .90$; Burnham, Frels, and Mahajan 2003; Keh et al. 2013). In line with previous studies (Huang and Dai 2010; Price, Arnould, and Tierney 1995), we chose customer satisfaction, which reflects the customer's fulfillment response based on the comparison of expectations and service outcome (Oliver 2010), as a subjective performance indicator to add to the generalizability of results. As satisfaction was the only scale, discriminant validity is not of concern.

Pretest

For the display inauthenticity and choice confidence pretest, we used an established two-item measure from Grandey et al. (2005; split-half reliability = .95) and the three-item scale adapted from Study 1 (α = .91), respectively. All measures showed adequate levels of reliability (Nunnally 1978). The pretest (N = 58) confirmed successful experimental manipulations, $M_{\text{high choice confidence}} = 6.02$; $M_{\text{low choice confidence}} = 5.04$; F(1, 56) = 10.49, p < .05, $\eta_p^2 = .16$; $M_{\text{inauthentic}} = 5.14$; $M_{\text{authentic}} = 3.33$; F(1, 56) = 19.59, p < .05, $\eta_p^2 = .26$.

Results

A two-way analysis of variance (ANOVA) showed that customers were less satisfied when employees displayed inauthentic positive emotions, $M_{\text{inauthentic}} = 5.45$; $M_{\text{authentic}} = 6.10$; $F(1, 123) = 12.75, p < .05, \eta_p^2 = .09$. The main effect of choice confidence was marginally significant, $M_{\text{high choice confidence}} =$ 5.96; $M_{\text{low choice confidence}} = 5.57$; F(1, 123) = 3.77, p < .10, $\eta_p^2 = .03$. Supporting Hypothesis 1, the main effect of display inauthenticity was qualified by a significant two-way interaction of choice confidence and display inauthenticity, $F(1, 123) = 4.39, p < .05, \eta_p^2 = .04$. In the inauthentic condition, participants were significantly more satisfied when choice confidence was high, $M_{\text{inauthentic}} \times \text{high choice confidence} = 5.83$; $M_{\text{inauthentic}} \times \text{low choice confidence} = 5.11$; F(1, 123) = 8.31, $p < .05, \eta_p^2 = .06$. In the authentic condition, choice confidence had no effect, $M_{\text{authentic}} \times \text{high choice confidence} = 6.08$; $M_{\text{authentic}} \times \text{low choice confidence} = 6.11$; F(1, 123) = .02, ns, $\eta_p^2 = .00$. Interestingly, the difference in satisfaction between inauthentic and authentic displays for customers high in choice confidence was also nonsignificant, F(1, 123) = 1.07, $ns, \eta_p^2 = .01$). Figure 3 displays the results.

Study 3: Inauthentic Positive Displays Versus Authentic Negative Displays

Study 2 replicated the findings from Study 1 experimentally and thus provides further support for the notion that customers with high choice confidence will exhibit a weaker negative effect of display inauthenticity. Frontline employees, however, may fail to even display inauthentic positive emotions and resort to authentically negative emotion displays instead (Groth and Grandey 2012). For example, customer misbehavior may evoke reciprocal action by the employee, so that emotions are not regulated at all (Liu, Chi, and Gremler 2019). Study 3 tests whether being artificially kind by displaying inauthentic positive emotions is better than displaying authentic negative emotions. We also test whether choice confidence mitigates the negative effects of authentic negative displays.

Procedure and Participants

Study 3 used a 2 (choice confidence: high vs. low) \times 2 (display inauthenticity: inauthentic positive vs. authentic negative) randomized between-subjects design. We operationalized authentic negative displays with anger, as employees often express anger (rather than other negative emotions) toward customers (Dallimore, Sparks, and Butcher 2007; Grandey, Tam, and Brauburger 2002; Rupp and Spencer 2006). The sample consisted of 151 ($M_{age} = 37.91$; $SD_{age} = 17.84$; 43.00% female) complete and usable cases from the German Clickworker panel. No cases were excluded from analysis.

The scenario asked participants to imagine they would plan to learn Italian in their free time and were looking to purchase a self-study language course at a bookstore. Participants first reviewed and chose a bookstore and then saw an interactive video of a bookstore consultation in which the employee first clarified the nature of the learning materials the customer was looking for. In response to the customers,



Figure 3. Customer satisfaction as a function of choice confidence and display inauthenticity.

the employee subsequently brought two different courses from a bookshelf, which she then presented to the customer. Participants then completed the survey and were debriefed after completion.

Experimental Manipulations

Choice Confidence

We manipulated choice confidence as in Study 2 (Chernev 2006; Study 4). Bookstores were described by a placeholder name, the average customer rating and number of customer reviews, driving distance, and price level. All attributes had three or four levels (Botti and McGill 2011). We obtained seven alternatives by randomly combining the various attribute levels and designed one additional alternative to manipulate choice confidence. In the high choice confidence condition, a dominant alternative was added to the choice set as done in Chernev (2006; Study 4). The dominant bookstore was better in every attribute (Lurie 2004). In the low choice confidence condition, the added alternative was similar to the other bookstores, so that no alternative dominated all other alternatives.

Display Inauthenticity

We created novel short film stimuli depicting a consultation in a real bookstore for this study. A service script was developed in close collaboration with two bookstore employees ensuring ecological validity of the scripted interaction. An experienced actress was recruited and trained in surface and deep acting for approximately 10 hours over 3 weeks. To maximize actor-role fit, minor adjustments were made to the script. These adjustments and repeated test shots ensured natural performance of the scripted interaction in front of the camera (cf. Lechner and Paul 2019). In the inauthentic positive emotion condition, the actress used surface acting to display exaggerated positive emotions, which is a common form of display inauthenticity (Walle and Campos 2014). In the authentic negative display condition, the actress used deep acting to experience negative affect and displayed real anger while performing the script. The films were professionally recorded from the customer's point of view by an experienced director of photography. Films were equal in length (41 seconds vs. 42 seconds). The procedure, stimuli stills, and all measures of this study appear in the Web Appendix.

Measures

Customer satisfaction was measured with an established 7point, four-item scale designed for retail contexts (M = 2.98, SD = 1.72, $\alpha = .94$; Bruner 2009; Eroglu and Machleit 1990), which showed adequate levels of reliability (Nunnally 1978). As satisfaction was the only scale, discriminant validity is not of concern.

Pretest

We conducted a pretest (N = 74) with the same items as in Study 2 for inauthenticity (split-half reliability = .91), adapted our choice confidence measure from Study 2 ($\alpha = .77$), and used two 7-point items from Kopelman, Rosette, and Thompson (2006; split-half reliability = .86) to measure positive emotion valence, which confirmed successful experimental manipulations, choice confidence: $M_{\text{low choice confidence}} =$ 5.46; $M_{\text{high choice confidence}} = 5.91$; F(1, 72) = 4.63, p < .05, $\eta_p^2 = .06$; display inauthenticity: $M_{\text{inauthentic}} = 5.88$; $M_{\text{authentic}} =$ 4.43; F(1, 72) = 13.55, p < .05, $\eta_p^2 = .16$; positive emotion valence: $M_{\text{positive}} = 6.00$; $M_{\text{negative}} = 2.01$; F(1, 72) = 224.73, p < .05, $\eta_p^2 = .76$.

Results

A two-way ANOVA showed that customers were more satisfied when employees displayed inauthentic positive (vs. authentic negative) emotions, $M_{\text{inauthentic positive}} = 3.95$; $M_{\text{authentic negative}} = 2.05; F(1, 147) = 61.36, p < .001, \eta_p^2 = .29.$ There was no main effect of choice confidence on customer satisfaction. Supporting Hypothesis 1, the main effect of display inauthenticity on customer satisfaction was qualified by a significant two-way interaction of choice confidence and display inauthenticity, $F(1, 147) = 4.44, p < .05, \eta_p^2 = .03$. In the inauthentic positive condition, participants were significantly more satisfied when choice confidence was high, $M_{\text{inauthentic}}$ positive × high choice confidence = 4.23; $M_{\text{inauthentic positive × low choice}} = 3.55; F(1, 147) = 4.19, p < .05, \eta_p^2 = .03$. In the authentic negative condition, choice confidence had no significant effect, $M_{\text{authentic negative × high choice confidence}} = 1.92; M_{\text{authen$ $tic negative × low choice confidence}} = 2.21; F(1, 147) = .84, ns, \eta_p^2 = .01.$ Figure 3 displays the results.³

Study 4: Mediation by Cognitive Dissonance and Decision Regret

Study 4 explored the psychological mechanism that explains the increased service performance of customers with high choice confidence when confronted with inauthentic positive displays by frontline employees. We hypothesized that the interaction between inauthentic displays and low choice confidence affects cognitive dissonance (Hypothesis 2), which, in sequence with decision regret, would explain the interaction effect in that customers with high choice confidence experience less dissonance and regret when encountering inauthentic displays. That is, customers with high choice confidence will show a weaker negative indirect effect of inauthentic displays through dissonance and regret on service performance than customers with low choice confidence (Hypothesis 3).

Procedure and Participants

Study 4 used a 2 (choice confidence: high vs. low) \times 2 (display inauthenticity: inauthentic positive vs. authentic positive) randomized between-subjects design. The sample consisted of 160 complete and usable cases from the United Kingdom's Clickworker panel ($M_{age} = 36.03$; $SD_{age} = 12.50$; 51.90% female). We excluded no cases from analysis after data collection.

In the study, participants were instructed to imagine themselves suffering from acute back pain and looking for a massage to relieve the pain. After reviewing available massage studios, participants chose one. Next, they read a description of the service delivery, after which they completed the survey. They were then debriefed.

Experimental Manipulations

Choice Confidence

Study 4 adapted the choice confidence manipulation from Studies 2 and 3 to a massage context. We designed a choice set by randomly combining three or four attribute levels of average customer rating and number of customer reviews, opening hours, and distance to the massage studio, respectively (Botti and McGill 2011). We obtained four alternatives and designed one additional alternative to manipulate choice confidence (Chernev 2006; Study 4). In the high choice confidence condition, a dominant alternative was added, which was better in every attribute compared to the other massage studios (Lurie 2004). In the low choice confidence condition, the added alternative was similar to the other massage studios so that no alternative dominated.

Display Inauthenticity

Study 4 adapted the validated manipulation of inauthentic display from Houston, Grandey, and Sawyer (2018; Study 2). The text described the service encounter from entering the massage studio until paying for the massage, with a focus on interactionrelated aspects of the service delivery (i.e., conversing with the masseur). Houston, Grandey, and Sawyer (2018) ensured that the manipulation of inauthenticity was based on established nonverbal behaviors associated with inauthentic and authentic expressions of positive emotions (Ekman 1993). For instance, in the inauthentic condition, the text specifies that the employee "puts on a big smile" and communicates "with forced cheer," while in the authentic condition, the employee "greets you with a warm smile" and communicates "cheerfully." The procedure and all measures of this study appear in the Web Appendix.

Measures

Customer satisfaction was measured as in Study 2 (M = 5.55, $SD = 1.47, \alpha = .97$). Decision regret was measured with three items from Voorhees, Brady, and Horowitz (2006; M = 2.37, SD = 1.55, $\alpha = .88$). A three-item measure was also employed for cognitive dissonance (M = 2.64, SD = 1.83, $\alpha = .94$; Powers and Jack 2013; Sweeney, Hausknecht, and Soutar 2000). All measures showed adequate levels of reliability (Nunnally 1978) and convergent validity (all AVEs > .5; Hair et al. 2010). Discriminant validity was supported for all measures except for dissonance and regret, although the correlation was not excessive (HTMT-ratio_{dissonance-regret} = .88; all other HTMT-ratios < .85; $r_{dissonance-regret} = .73$; Voorhees et al. 2016). We identified one cross-loading item in the regret scale, which we removed. The new HTMT-ratio of dissonance and regret met the accepted threshold of .85 supporting discriminant validity (Voorhees et al. 2016).

Pretest

A pretest (N = 82; Study 3 items were adapted to context) confirmed that participants in the high choice confidence condition reported significantly higher choice confidence, $\alpha = .85$; $M_{\text{high choice confidence}} = 6.46$; $M_{\text{low choice confidence}} = 5.64$; F(1, 80) = 20.93, p < .05, $\eta_p^2 = .21$. Participants in the inauthentic condition perceived the emotion display as significantly more inauthentic, split-half reliability = .94; $M_{\text{inauthentic}} = 5.55$; $M_{\text{authentic}} = 2.89$; F(1, 80) = 77.76, p < .05, $\eta_p^2 = .49$.

Results

A two-way ANOVA yielded that customers were less satisfied when employees displayed inauthentic positive emotions, $M_{\text{inauthentic}} = 4.58$; $M_{\text{authentic}} = 6.48$; F(1, 156) = 119.27, p < .05, $\eta_p^2 = .43$. The main effect of choice confidence was not significant, $M_{\text{high choice confidence}} = 5.67$; $M_{\text{low choice confidence}} = 5.41$; F(1, 156) = 2.27, ns, $\eta_p^2 = .01$. Supporting Hypothesis 1, the main effect of display inauthenticity was qualified by a significant two-way interaction of choice confidence and display inauthenticity, F(1, 156) = 4.14, p < .05, $\eta_p^2 = .03$. In the inauthentic condition, participants were significantly more satisfied when choice confidence was high, $M_{\text{inauthentic} \times \text{high choice confidence}} = 4.89$; $M_{\text{inauthentic} \times \text{low choice confidence}} = 4.27$; F(1, 156) = 6.19, p < .05, $\eta_p^2 = .04$. In the authentic condition, choice confidence had no effect, $M_{\text{authentic} \times \text{high choice confidence}} = 6.44$; $M_{\text{authentic} \times \text{low choice confidence}} = 6.53$; F(1, 156) = .14, ns, $\eta_p^2 = .00$. Figure 3 displays the results.

To test Hypothesis 2, a second two-way ANOVA showed that customers experienced more cognitive dissonance when employees displayed inauthentic positive emotions, $M_{\text{inauthentic}} = 3.53; M_{\text{authentic}} = 1.77; F(1, 156) = 51.25,$ p < .05, $\eta_p^2 = .25$. The main effect of choice confidence was not significant, $M_{\text{high choice confidence}} = 2.47$; $M_{\text{low choice confidence}} =$ 2.81; F(1, 156) = 2.02, ns, $\eta_p^2 = .01$. Supporting Hypothesis 2, we also found a significant interaction effect, F(1, 156) =7.15, p < .05, $\eta_p^2 = .04$. In the inauthentic condition, participants experienced less dissonance when choice confidence was high, $M_{\text{inauthentic} \times \text{high choice confidence}} = 3.03;$ $M_{\text{inauthentic} \times \text{low choice confidence}} = 4.05; F(1, 156) = 8.29,$ $p < .05, \eta_{\rm p}^2 = .05$. In the authentic condition, choice confidence had no significant effect, $M_{\text{authentic} \times \text{high choice confidence}} =$ 1.92; $M_{\text{authentic} \times \text{low choice confidence}} = 1.61; F(1, 156) = .79, ns,$ $\eta_p^2 = .01.$

To test the serial mediation hypothesis (Hypothesis 3), we turned to bootstrapping analysis via the PROCESS macro for SPSS (Model 85; 10,000 samples; Hayes 2013). We reviewed the 95% bootstrapped confidence interval (CI) for the three indirect paths through cognitive dissonance only, decision regret only, and dissonance and regret in tandem. Supporting Hypothesis 3, the indirect effect through the serial mediation of dissonance and regret was significant (Index = .14, SE = .06; 95% CI [.03, .27]). In the high choice confidence condition, inauthenticity had a weaker negative indirect effect ($\beta = -.11$, SE = .06; 95% CI [-.25, -.03]) than in the low choice confidence condition ($\beta = -.25$, SE = .09; 95% CI [-.44, -.11]). In contrast, neither the indirect effect through dissonance only (Index = .05, SE = .06; 95% CI [-.05, .20]; high confidence: $\beta = -.04$, SE = .05; 95% CI [-.16, .04]; low confidence: $\beta = -.09$, SE = .11; 95% CI [-.34, .09]), regret only (Index = .05, SE = .08; 95% CI [-.07, .22]; high confidence: $\beta = -.16$, SE = .06; 95% CI [-.29, -.06]; low confidence: β = -.21, SE = .09; 95% CI [-.41, -.06]) nor the conditional direct effect when controlling for dissonance and regret ($\beta =$.07, SE = .08; 95% CI [-.23, .10]) reached significance.

Further analyses revealed that the order of mediators was not reversible.

Study 4 thus replicated the findings from the previous studies and demonstrated that the interaction of choice confidence and inauthentic displays on service performance was serially mediated by cognitive dissonance and decision regret. Customers with high choice confidence experienced less cognitive dissonance and regret when encountering inauthentic displays from frontline employees.

General Discussion

Theoretical Implications

The present research contributes to the literature in three ways. First, considering that recent meta-analyses attribute the absent association of inauthenticity and service performance to moderators (Hülsheger and Schewe 2011; Kammeyer-Mueller et al. 2013; Wang, Seibert, and Boles 2011), we contribute to the emotional labor literature by shedding light on the previously overlooked predelivery phase in our investigation of choice confidence. Extant studies on moderators are limited to the influence of individual differences (Chi et al. 2011; Groth, Hennig-Thurau, and Walsh 2009) and situational factors that exclusively focus on customers' experiences of inauthenticity at the moment of service delivery (Grandey et al. 2005). And so, despite EASI literature's assertion that reactions to inauthentic emotion displays may vary depending on predelivery factors (van Kleef, Homan, and Cheshin 2012), along with an increasing emphasis on the entire customer journey in marketing (Verhoef et al. 2009), empirical work has not systematically progressed insights beyond the moment of service delivery. We take a unique perspective and contribute to the emotional labor literature by demonstrating the impact of choices before service delivery on the link between inauthentic displays and service performance across four related studies.

Second, we contribute to the emotional labor and EASI literature by investigating the mechanism by which inauthentic displays influence customers. While EASI theory proposes that affective and cognitive processes operate either in isolation or simultaneously (van Kleef 2009), our results suggest that for customers with low choice confidence, inauthenticity increases the level of cognitive dissonance and subsequently decision regret, which ultimately reduces service performance. We thus provide an important extension to EASI theory by showing that cognitive and affective factors work together in explaining how inauthenticity influences customers (van Kleef 2014) and add to the body of literature on inauthenticity mechanisms (Grandey and Gabriel 2015).

Third, we contribute to the literature on positive versus negative frontline emotion displays. Effects of inauthenticity and negative displays have largely been considered independently (e.g., Du, Fan, and Feng 2011; Hennig-Thurau et al. 2006), rather than compared directly. This comparison is important, however, given that circumstances impairing employees' emotion regulation capabilities may result in both poorly regulated (e.g., inauthentic smile) and unregulated (e.g., anger) displays (Grandey, Tam, and Brauburger 2002). We offer this comparison, and critically, in doing so, address a second gap in the literature: namely, that research on customer reactions to authentic negative displays is still nascent, as studies have not yet moved beyond emotional dichotomies such as negative versus positive (Du, Fan, and Feng 2011; Liu, Chi, and Gremler 2019), which is an acknowledged limitation of extant studies (Liu, Chi, and Gremler 2019). We contribute to this emerging field by studying a discrete emotion (i.e., anger) that is of particular relevance in services, as employees often express anger (rather than other negative emotions) toward customers (Grandey, Tam, and Brauburger 2002; Groth and Grandey 2012; Rupp and Spencer 2006). Our findings show that authentic negative displays result in significantly lower service performance compared to inauthentic positive displays. Moreover, we find that choice confidence does not mitigate the detrimental effects of authentic negative displays, which further underlines the particularly harmful nature of these displays.

Implications for Managers

The present research provides important implications for managers. First, though service firms invest much in employees' authentic positive displays, unwanted displays such as fake smiles or negative displays are still common and customer reactions to them are heterogeneous. Managers, therefore, want to know whether they should take actions and make further investments to ensure authentic positive displays and, if so, how. Our results show that authentic positive displays are better or equivalent to inauthentic positive displays and that authentic negative displays are the worst among the available options. Because a focus on preventing fake or negative displays can be counterproductive for customers and employees alike (Kammeyer-Mueller et al. 2013), we advise firms to create an environment that encourages authentic positive frontline employee emotions. How should firms get employees to do that? Individual measures may not be enough. We therefore recommend that firms put together a comprehensive set of input, process, and output controls in which they invest accordingly (Grandey and Gabriel 2015; Jaworski 1988). Examples of input controls (i.e., actions taken before the service encounter) include employee recruitment and training. In this context, firms should ensure that employees bring or develop abilities (e.g., emotional intelligence) and motives (e.g., customer orientation) that enable and motivate them to display authentic positive emotions. Educating frontline employees about what emotion display inauthenticity is and how it affects their tips can be another simple intervention to encourage authentic positive displays. Work resources that support frontline employee well-being (e.g., autonomy, breaks, and coworker support) are the examples of process controls that can go a long way in fostering authentic smiles. After the service encounter, output controls such as rewarding authentic positive displays by supervisors should be used (e.g., by giving out "Friendliest Employee of the Month" awards).

Second, we show that low customer predelivery choice confidence exacerbates the negative effect of inauthentic displays. A café, such as the one from our field study, may suddenly be faced with a competitor next door, receive negative customer reviews online, or may need to raise prices. Studies 2-4 suggest that each of these circumstances in the predelivery phase could erode their customers' choice confidence. Customers who may have felt confident about their choice before now may be unsure whether the café next door has something better to offer. In these circumstances, any investments in input, process, and output controls should be particularly effective. In addition, our findings point to the need to extend companies' customer insights beyond the moment of delivery by employing tools such as customer journey maps, service experience blueprints, or surveys to identify drivers of choice confidence (Rawson, Duncan, and Jones 2013; Zomerdijk and Voss 2010). Such analysis should also include the postdelivery stage where metrics such as customer satisfaction and word of mouth can help managers understand customers' choice confidence in the predelivery stage. Resulting insights can be used to determine the circumstances in which customers' choice confidence varies and to manage frontline employees accordingly (e.g., allow for more breaks when insights suggest that customer choice confidence is low).

Third, the recent past shows that market shocks such as the global financial crisis and the COVID-19 pandemic, together with the accompanying prospect of unemployment, induce uncertainty and fear (Voorhees, Fombelle, and Bone 2020), which may reduce both employee positive display authenticity as well as customer choice confidence (Briñol, Petty, and Barden 2007). During such crises, the importance of managing emotion displays increases. We therefore recommend that managers consider these disruptive events in their employee management and make appropriate adjustments. For example, as we show in Study 1, inauthentic smiles, particularly in the face of low choice confidence, reduce tips, which is a major source of income for many service workers. Thus, managers and wider company leadership are advised to support frontline employees' emotional and economic wellbeing during times of crisis, for instance, by absorbing financial shocks through cuts of their own salary rather than forcing such cuts upon frontline employees. Where feasible, compensating frontline employees for lost tips may further benefit company performance in times of volatility. This is because, particularly during a crisis, creating and maintaining conditions for employees to present a sincere smile should impact customer satisfaction positively and stabilize company revenues.

Limitations and Future Research

Across four related studies, we examined the moderating role of choice confidence in customer reactions to inauthentic positive displays from four different services industries, using experiments and real customer spending behavior in a natural service setting. Said industries (gastronomy, hotel, bookstore, and massage) exemplify the occurrence of organizationally prescribed positive emotions in service interactions and are representative of brief to medium-length service interactions (Grandey et al. 2005). Future research should investigate whether the moderating effect of choice confidence is generalizable to long-interaction services (e.g., purchasing a mortgage) and to services delivered over the phone or via text (e.g., call center, chats in online shops). An investigation of complex services that, by their very nature, result in lower choice confidence (e.g., financial products) would also add to the generalizability of our results. Moreover, emerging research suggests that inauthenticity may vary within service delivery episodes (e.g., when customers start the interaction civilly but then become uncivil; Gabriel and Diefendorff 2015). Insights into how choice confidence relates to such changes of display inauthenticity on the part of employees is a promising direction for future research.

In comparing the effects of inauthentic positive displays to authentic negative displays, we focus on anger as research shows that employees often express anger toward customers when displaying negative emotions (Grandey, Tam, and Brauburger 2002). Future research should compare sadness displays and other discrete negative emotions to inauthentic positive displays. Finally, a conceptual replication of our findings using a field experiment instead of a dyadic study would help to reduce the impact of factors outside the researchers' control (such as survey distribution by employees) and potentially socially desirable response with regard to employees' reports of display inauthenticity.

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Supplemental Material

Supplemental material for this article is available online.

Notes

 As the degrees of freedom in multilevel modeling equal the number of Level-2 objects (i.e., employees), only models with two Level-1 control variables could be estimated. The interaction of choice confidence and display inauthenticity, however, remained significant with any paring of café busyness, group size, patronage frequency, and customer gender. All controls but gender (coded: 1 = *female*, -1 = male; $\beta = .15$, standard error [*SE*] = .06, p < .05) were not significant.

- 2. We performed several robustness checks on our results. The interaction of choice confidence and display inauthenticity remained significant when excluding all control variables ($\beta = .19$, SE = .07, p < .05), using log-transformed tip percentage to account for outliers ($\beta = .26$, SE = .05, p < .05), and in ordinary least squares fixed-effects models with dummy-coded grouping variables to account for the nested data structure with all controls entered simultaneously ($\beta = .01$, SE = .00, p < .05; Huang 2016), thus supporting validity of the results. We also tested the effect of gender match ($\beta = .12$, SE = .07, ns), while the focal interaction effect remains significant ($\beta = .19$, SE = .06, p < .05).
- 3. As a robustness check in Study 3, we tested self-confidence as an alternative explanation for the moderating effect of choice confidence. Self-confidence reflects the extent to which customers feel generally capable and assured with respect to their decisions and behaviors in the marketplace (Bearden, Hardesty, and Rose 2001). Customers with high self-confidence could be expected to be less vigilant about manipulative information such as fake smiles and overlook such information irrespective of choice confidence. We measured customer self-confidence after satisfaction using the established 31-item scale from Bearden, Hardesty, and Rose (2001) that showed acceptable reliability and supported discriminant validity ($\alpha = .88$; HTMT_{satisfaction-self-confidence} = .54). The interaction of choice confidence and inauthenticity remained significant when controlling for self-confidence, ruling out this alternative account.

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