Affective complementarity in service encounters

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Abstract

Face-to-face interactions are a crucial part of services. However, research that investigates the dynamics of service encounters is still rare. In this study we used a theoretical framework that aligned the concept of interpersonal complementarity with Mehrabian and Russell's (1974) three-dimensional model of affect. We hypothesized that there are positive relationships between employees' and customers' affective experience of pleasantness and arousal (correspondence rule) and a negative relationship between the interactants' experience of power (reciprocity rule). Furthermore, we explored the role of gender combination in service encounters. We tested our hypotheses with a sample of 29 service employees and 345 service encounters. Using hierarchical linear modeling (HLM), our hypotheses were confirmed. Furthermore, we found that only the relationship between employee and customer arousal was affected by the gender combination.

Face-to-face interactions are a crucial part of services. This stems primarily from the fact that production and consumption of services cannot be separated, that is, they are produced and consumed at the same time (Zeithaml/Parasumaran/Berry 1985). Service encounters are commonly conceptualized as a special case of dyadic interactions (Solomon, Surprenant/Czepiel/Gutman 1985). The roles of the service employee and the customer are well defined and so is the set of behavioral rules that each interactant is expected to follow (Solomon et al. 1985).

However, despite the obvious importance of face-to-face interactions in the delivery of services, empirical studies on the dynamics of service encounters are still rare (Barger/Grandey 2006; Giardini/Frese 2006a; Pugh 2001; Rafaeli 1989). Although most of these studies have a special focus on affective processes, their approach to affect is one-dimensional. In contrast, the present study conceptualizes affect explicitly as multidimensional. This allows us to test specific relationships between interactants' affective experiences that have not been investigated before. More specifically, we argue that certain rules of dyadic behavior (i.e., rules of correspondence and reciprocity) can also be identified in the domain of affective experiences in service encounters. Moreover, we will explore whether the relationships between service employees' and customers' affect is moderated by characteristics of the gender combination within the encounter.

Theoretical background

Social interactions and rules of complementarity

Most models of interpersonal behavior describe social interactions as a constant exchange of messages between the interactants. For example, Kiesler (1979) suggests that a relationship between two individuals is the momentary result of the "reciprocal command messages". This relationship consists of two parts. First, an encoder sends a message, called the evoking

message, "by which an encoder imposes a condition of emotional, cognitive, and imaginal engagement on the decoder" (Kiesler/Schmidt/Wagner 1997: 222). Second, the decoder covertly registers a so-called impact message that consists of four classes of internal responses: direct feelings, action tendencies, perceived evoking messages, and fantasies. An overt response by the decoder closes the interaction circle.

Further, it has been argued that interpersonal behavior is designed to evoke or trigger restricted classes of reactions (Kiesler 1983). Individuals constantly try to influence others to respond in a manner that confirms our self-definitions and satisfies our needs for security and affiliation (Carson 1969; Kiesler 1983; Wiggins 1981). In this respect the concept of "interpersonal complementarity" is central to interpersonal models of behavior is (e.g., Carlson 1969; Kiesler 1983; Leary 1957; Markey/Funder/Ozer 2003). More specifically, it is suggested that action and reaction follow certain rules of complementarity that are described on the dimensions of "control" and "affiliation". A central proposition states that

> [c]omplementarity occurs on the basis of (a) reciprocity in respect to the Control dimension or axis (dominance pulls submission, submission pulls dominance), and (b) correspondence in respect to the Affiliation dimension (hostility pulls hostility, friendliness pulls friendliness). (Kiesler 1983: 201)

Thus, behavior in social interactions is described as eliciting or restraining subsequent behavior from the other on these two dimensions. Unfortunately, the theoretical underpinnings for these rules are not well elaborated (Wiggins 1981). Rather, striving for complementarity is more or less explicitly handled as an anthropological constant.

Orford (1986) reviewed empirical evidence for these rules and found only partial support. Specifically, he showed that the rule works well for the "friendly" side of the circumplex model, that is, friendly-dominant behavior pulls mainly friendly-submissive reactions. Contrary to the predictions, however, the hostile part does not reveal clear patterns

(however, see also Markey et al. 2003). For example, hostile-dominant behavior very often triggers hostile-dominant behavior. Orford (1986) discussed three variables that might explain the mixed results. He argued that role or status of the interactions affect interpersonal contingencies quite strongly. Furthermore, he suggests that duration of the relationship makes a difference in the sense that rules of complementarity become less and less important over time. Finally, gender of the interactants might play a role. Given these problematic issues the context of service encounters seems particularly suitable to test the rules of complementarity. In service encounters, role and status of customers and employees are relatively clearly defined. Furthermore, the encounters we will study mostly involve interactions between individuals that have a formal and distant relationship rather than a private and long-term relationship. The role of gender, however, might indeed play a role in service encounters (Rafaeli 1989). Thus, in this study we will explore this issue by explicitly modeling the gender combination within the encounter. We will turn to this aspect below.

Linking interpersonal behavior and affect

As was mentioned above, in social interactions, an encoder elicits internal experiences in the decoder. These internal events (e.g., direct feelings, action readiness) mediate a large part of overt reactions. Kiesler and colleagues (1997) argue that the components of the impact message overlap to a great extent with the common conceptualization of affective experience (in particular emotion) as a set of covert responses triggered by an appraisal of the situation's significance and valence (Frijda 1986; Lazarus/Kanner/Folkman 1980; Plutchik 1991). In fact, Frijda's (1986) widely accepted definition of emotions reflects how closely connected affective experiences and interpersonal behavior are:

> Emotions then can be defined as modes of relational action readiness, either in the form of tendencies to establish, maintain, or disrupt a relationship with the environment or in the form of mode of relational readiness as such. (Frijda 1986: 71)

Throughout this paper we use the term affect as the more integrative term that comprises emotions as well as moods. In the literature, these two concepts have been clearly distinguished. Moods have a longer duration and a weaker intensity than emotions. They also lack object specifity, that is, moods as an experiential phenomenon are not directed towards an object (Morris 1989; Weiss/Cropanzano 1996). As a consequence, behavioral responses to mood states seem to be less connected to the actual sources. This may mean that moods are not a vehicle through which interpersonal behavior is guided. However, research on the phenomenon of affective contagion (Barger/Grandey 2006; Hatfield/Caccioppo/Rapson 1994; Neumann/Strack, 2000) has shown that people catch the expressed mood in an interaction because they are inclined to mimic the (mostly) nonverbal expressions of the other (smile when the other smiles). Through processes of self-perception individuals infer their own mood (e.g., "I smile, therefore, I must be in a good mood"; Stepper/Strack, 1993). The mood is then expressed and mimicked by the other, and so on. Thus, not only emotions but also mood can drive interpersonal behavior. We will return to the contagion processes below. At first, however, we will briefly turn to the dimensional approach to affective experience.

The structure of affect

The structure of affective experience has been described within different models and structures (for an overview see Yik/Russell/Feldman Barrett 1999). All in all, either two or three dimensions seem to emerge (Russell 1991): pleasantness (or evaluation, valence), arousal (or activity, activation), and power (or potency, dominance). For Osgood (1969) this structure reflects an innate emotional reaction system, that is, all humans ascribe emotional meaning to events or objects in terms of these three basic dimensions. However, only a few studies have been able to identify all three dimensions simultaneously (Kluger/Rafaeli 2000;

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Takahashi 1995). Pleasantness is the most frequently found dimension of affective

experience, combined with either arousal (e.g., Russell/Lewicka/Niit 1989) or power (e.g.

Gehm/Scherer 1988). Russell (1991) suggests that the emergence of arousal vs. dominance is

very much dependent upon the items used to measure affect. Items that focus on an

interpersonal context make the emergence of a power dimension more probable, whereas

items that focus on a noninterpersonal context may elicit an arousal dimension. Directly

testing this assertion, Kluger and Rafaeli (2000) included adjectives with a strong power

connotation to describe pictures of women. Using a multidimensional scaling technique they

documented the occurrence of all three dimensions.

Objectives and Hypotheses

In this study we will relate the complementarity rules of social interactions (Kiesler, 1983) to

the three-dimensional structure of affect. In fact, Kiesler and colleagues (1997) recognized the

similarity between his circumplex model of interpersonal behavior and two-dimensional

models of affect (e.g., Russell/Pratt 1980; Watson/Tellegen 1985) and pleaded for a

meaningful alignment of these models. Following this argument, we suggest that self-reports

of the interactants' affective experience during the encounter represent an adequate means for

reflecting the nature of the relationship. As outlined above, there is a strong tie between

covert affective reactions and overt behavior. As a consequence, the complementarity in

social interactions should not only be reflected in overt responses but also in the affective

state of the interactants.

Going a step further, we predict relationships with regard to the single dimensions of

affect. First, we argue that the pleasantness dimension corresponds to the "affiliation"

dimension used in Kiesler's (1983) model of interpersonal behavior. Both dimensions involve

some kind of valence appraisal of the person and/or the situation. Furthermore, the process of

affective contagion plays an important role. Expressions of friendliness and sympathy elicit corresponding reactions, a phenomenon also found in service encounters (Barger/Grandey 2006; Pugh 2001). Moreover, Giardini and Frese (2006b) showed that contagion processes can also be found on the level of employees' and customers' experience of positive affect. Thus, transferring the correspondence rule of affiliation, we hypothesize that there is a positive relationship between the employee's and the customer's experience of pleasantness during the encounter.

> *Hypothesis 1: There is a positive relationship between employee pleasantness and customer pleasantness*

The arousal dimension does not have a direct counterpart in Kiesler's (1983) model of interpersonal behavior. Nevertheless, we argue that the interactants' affective states on the arousal dimension are positively related. It seems plausible to suggest that contagion processes again play an important role. For example, Schacter and Singer's (1962) classical study illustrates how people assimilate to others' feelings of anger or euphoria, emotions which are clearly related to arousal.

> *Hypothesis 2: There is a positive relationship between employee arousal and customer arousal*

Finally, we suggest that the power dimension of affective experience accords to the control dimension of interpersonal behavior. For example, behavior aimed at controlling the situation should be accompanied by an affective state that represents superiority or power in the actor and triggers an affective reaction with feelings of inferiority in the other participant. Thus, a reciprocal (i.e., a negative) relationship between the interactants' affective states with regard to power is hypothesized. Social interactions in service settings seem to be especially suitable to study this effect. Bateson (1985), for example, describes service encounters as a fight for control and power between the customer and the employee. Different aspects of the situation

can legitimize the exercise of power in service encounters. In this study we investigate service encounters in which, in most cases, the employee is the expert and the customer depends to a great extent on his/her expertise.

Hypothesis 3: There is a negative relationship between employee power and customer power

In addition, we want to further explore the role of gender in service interactions. Gender differences with regard to the role of affect in interactions have long been discussed. A number of researchers have argued that, in social interactions, women tend to send verbal and nonverbal signals that reflect warmth and sympathy whereas men send more signals that relate to status or power (Frieze/Ramsey 1976; Putnam/McCallister 1980; Rafaeli 1989). Also, Doherty, Orimoto, Singelis, and Hatfield (1995) found that women are more susceptible than men to emotional contagion for both positive and negative emotions. Thus, it might be argued that processes of affective complementarity are stronger for females than for males, at least with regard to the pleasantness and arousal dimension of affect. The differences with regard to the power dimension might not be as pronounced, given the males' purportedly stronger inclination for sending power signals. We want to explore whether these processes can also be found in service encounters. This question is especially important for the management of service employees' behavior. Organizational or professional rules of affective display are to be followed independent of the employee's or customer's gender (Rafaeli 1989). Thus, no differences in affective processes should be found between mixed-gender dyads, male dyads, or female dyads. Given these contradictory predictions, we want to refrain from stating a hypothesis. However, we will explore these relationships by adding the different gender combinations to our analyses as further variables.

Method

Participants

Thirty-two service employees from different service settings participated: 7 salespeople in a computer retail store, 12 travel agents in three different travel agencies, 5 insurance agents in an insurance company, and 8 university counselors. In the analyses, we included only the service employees who provided information from at least three interactions with three different customers. Three service employees did not fulfill this condition and were dropped from further analyses. Thus, the final sample consisted of 29 employees, with an average age of 34.5 years (SD = 11.2 years, range 19 to 58 years). Average tenure was 5.3 years (SD = 1.94). 13 of the service employees were female, 16 male.

Although the service settings appear to be rather heterogeneous, all jobs were relatively complex and involved a relatively high amount of advising and/or counseling on the part of the employee. To ensure that the four service contexts are comparable, we tested for differences in job characteristics, namely, work complexity, autonomy, variability, time pressure, and emotional demands. Employees answered respective items from scales developed by Semmer, Zapf, and Dunckel (1998; work complexity: 3 items, autonomy: 3 items, variability: 3 items, time pressure: 3 items) and by Zapf and colleagues (1999; emotional demands: 8 items). ANOVAS showed no significant differences on all five job characteristics between the four service contexts. Nevertheless, in all multivariate analyses we controlled for service context by using dummy coding.

Procedure

We instructed the service employees to ask their customers, after each interaction, to complete a brief questionnaire about the encounter. If they consented, they were given a questionnaire to be filled out at a separate location. The completed questionnaire was then dropped into a

box that was located inside the service setting. The service employee also filled out a questionnaire about the encounter. Customer questionnaire and service employee questionnaire were matched via a code number. In addition, on a different occasion, the service employees filled out a questionnaire that included the scales for assessing the job characteristics cues and demographic questions.

Measures

Affect variables. The affective experience during the encounter of both service employee and customer was measured by asking the respondents to rate how they felt during the interaction. Three bipolar items reflected the main axis of the three dimensions of affect: unpleasant – pleasant (pleasantness), calm – excited (arousal), and inferior-superior (power). The response format ranged from –3 to +3. The item "unpleasant – pleasant" was taken from the two-dimensional measure of affect developed by Russell, Weiss, and Mendelsohn (1989). The items "calm - excited" and "inferior - superior" were taken from Mehrabian and Russell's (1974) three-dimensional affect measure. This measure has also been used in previous service-related research (e.g., Foxall/Greenley, 1998). Single-item measures of affect have been used frequently in research and their validity has been demonstrated (e.g., Lang/Greenwald/Bradley/Hamm 1993; Russell et al. 1989; Totterdell 2000).

    Control variables. Single questions in the customer questionnaire addressed the length of the interaction, customer age, and customer gender.

Analytical approach

The central variables of this study (i.e., the affect variables) are located at the level of the single service interaction. However, the single interactions are not independent. From one service employee we have collected data on several interactions. Thus, we have a nested data

structure where interaction data is nested in service employee. One strategy for dealing with this nested design would be to aggregate level 1 data to level 2 (i.e., service employee level). However, this procedure reduces statistical power and does not allow the processing of potentially meaningful information from the service encounter level (Hofmann 1997). Therefore, we opted to analyze the data with hierarchical linear modeling (HLM; Bryk/Raudenbush 1992), a technique that is especially designed to model nested data. HLM allows the simultaneous processing of data from the two levels without losing important information. Moreover, in contrast to the ordinary least square approach, HLM accounts for the fact that, in hierarchically nested data designs, the measurements at level 1 are not independent.

Results

The intercorrelations of the study variables are presented in Table 1. There are significant correlations between the interactants' perception of pleasantness, arousal, and power, but also, as expected, some significant relationships between the affect dimensions within the group of customers or employees.

Table 2 presents the results of the three HLM analyses. As control variables we entered interaction duration, customer age, service context (dummy coding), and, as level-2 variables, service employee age. To assess the relationships between the interactants' perceptions on each dimension independently of the other dimensions we controlled for their influence. More specifically, when predicting customer pleasantness, arousal, or power, respectively, we entered all remaining customer affect variables and all three service employee affect variables. To explore the role of the gender composition of the dyad we entered a dummy-coded variable for "male dyad" and for the "mixed dyad". As a consequence, the reference category was "female dyad". Finally, in each of the three HLM analyses we entered two

interaction terms, computed as the product of either the "both male dyad" dummy or the "mixed dyad" dummy and the respective employee affect variable. To reduce potential problems with multicollinearity, in particular with respect to the interaction effects, all variables (with the exception of the service context variables and the interaction terms) have been grand mean centered (see Cohen/Cohen/Aiken/West 2001; Hofmann/Gavin 1998).

Hypothesis 1 predicted a positive relationship between service employee pleasantness and customer pleasantness. Table 2 shows that service employee pleasantness emerges as a significant predictor of customer pleasantness ($\gamma = 0.146$, $p < 0.01$), supporting the hypothesis. Also employee arousal is related to customer's pleasantness.

Hypothesis 2 stated that there is a positive relationship between service employee arousal and customer arousal. This hypothesis is supported, with service employee arousal emerging as the strongest predictor of customer arousal ($\gamma = 0.242$, $p < 0.001$). In addition, employee power is also positively related to customer arousal.

Hypothesis 3 predicted a negative relationship between service employee power and customer power. In line with the hypothesis, employee's power perception is negatively related to customer power ($\gamma = -0.163$, $p < 0.01$).

The analysis of the gender combination reveals only few significant relationships. First, there is a higher level of customer pleasantness in female dyads compared to mixed gender dyads, as indicated by the significant negative relationship between the dummy variable for mixed gender dyads and customer pleasantness ($\gamma = -0.520$, $p < 0.01$). Second, there is a higher level of customer power in male dyads than in female dyads ($\gamma = 0.382$, $p < 0.05$). Finally, the interaction between both mean dyad and employee arousal emerges as a significant predictor for customer arousal ($\gamma = -0.288$, $p < 0.05$). The other five interaction terms do not reach significance. A graphical inspection of the direction of the interaction

effect (see Cohen et al. 2001) reveals that the relationship between employee arousal and customer arousal is higher in female dyads than in mixed dyads (see Figure 1).

Discussion

The study was designed to test whether general rules of interpersonal complementarity are also effective in service encounters. We used a theoretical framework that aligned the concept of interpersonal complementarity with Mehrabian and Russell's (1974) three-dimensional model of affect. As such, this study is embedded in a recent research stream that explores the antecedents, meanings, and effects of emotional processes in service settings (Barger/Grandey 2006; Giardini/Frese, 2006a, b; Mattila/Enz 2004; Tsai/Huang 2002)

Our study provides evidence for specific relationships between interactants' perceptions of their affective state in service encounters. As predicted, the employees' and customers' perceptions of pleasantness were positively related to one another while controlling for various affective and contextual variables. Thus, this result mirrors the "correspondence rule" of social interaction. The same rule seems to be in effect for the affective dimension of arousal, as well, showing a positive relationship between employee arousal and customer arousal. Finally, the "reciprocity rule" of social interaction seems to have an affective equivalence. In line with our prediction, we found a negative relationship between employees' and customers' perceptions of power.

One possible way to provide an explanation for the complementarity rules can be found in the phenomena of emotional contagion. Research suggests that in interactions people tend to automatically synchronize with their partner's verbal and nonverbal behavior (e.g., speaking at the same speed). Since individuals infer their current affective state in part on the basis of their own expressive behavior, this may lead to similar affective experiences (Hatfield et al. 1994; Laird/Bresler 1992; Neumann/Strack 2000). Contagion processes have

also been shown to be in effect in service interactions (Barger/Grandey 2006; Giardini/Frese, 2006a; Pugh 2001). However, these studies have investigated the contagion effect basically focusing only on the pleasantness dimension. Thus, the current study has extended research by explicitly modeling the affect dimensions of arousal and power.

While the contagion effect can very easily explain the correspondence of interactants' affect perceptions on the pleasantness and the arousal dimension, the processes for the reciprocity rule of power are not as obvious. It can be argued that people react to gestures or utterances that signal power not with synchronized behavior but with reciprocal behavior (e.g., stepping back when the other steps forward). Through processes of self-perception (see above) individuals then construct their affective state.

The analysis of the role of gender allowed an interesting glimpse into the dynamics of service encounters. When considering gender-related patterns, the complementarity rules for pleasantness (correspondence rule) and for power (reciprocity rule) seem to be in effect independent of the dyad's gender combination. There is one notable exception: in dyads that consist of a female employee and a female customer, the relationship between the arousal perceptions are stronger than in the case of mixed gender dyads. No difference could be found between female dyads and male dyads. A separate analysis revealed that the interaction effect also holds when female dyads and male dyads are combined into one category "same gender dyads". This may mean that in same-gender combinations there is more security about the meaning of verbal and nonverbal signals sent by the interactants. In contrast, some ambiguity might always remain in mixed-gender combinations on how to interpret affective information, at least with regard to arousal.

As in any empirical study there are critical issues that have to be discussed. From a methodical standpoint the use of single-item measures to measure affective experiences can be criticized. However, Russell (1989) developed a single-item scale of pleasantness and

arousal. This instrument showed strong evidence of convergent validity with several multi-item measures of pleasantness and arousal. Therefore, although multi-item scales should still be the preferred method for assessing self-reported affective experiences, in case of time constraints single items can be considered a valid alternative. Furthermore, we wanted to use items that had face validity since we suspected that subjects were not willing to accept items that were worded ambiguously and not clearly related to the preceding situation.

Due to anonymity considerations we did not have any information about the specifics of any service interaction, that is, it remains unclear, for example, if and how much money was involved. One could argue that the nature of the relationship between customer and service employee changes with the amount of financial risk involved. Future research should consider the role of these and other similar contextual variables. In general, the results of this study support the suggestion of Kiesler and colleagues (1997) that concepts of interpersonal behavior and affective experience can be aligned meaningfully. Future research should, therefore, consider affective states as an alternative pathway when investigating social interactions.

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Table 1

Means, Standard Deviations, and Correlations of the Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1 Context: Computer retail[a]	-	-												
2 Context: Travel agency[a]	-	-	-.51**											
3 Context: Insurance agency[a]	-	-	-.34**	-.31**										
4 Duration of encounter	27.77	22.85	-.18**	.02	.44**									
5 Customer gender[b]	0.54	0.50	.21**	-.10	-.05	-.01								
6 Customer age	33.27	11.74	.12*	-.16**	.34**	.21**	.22**							
7 Customer pleasantness	1.66	1.30	.01	-.17**	.13*	.12*	-.03	-.07						
8 Customer arousal	-0.90	1.75	-.04	.26**	-.14*	-.09	-.05	.00	-.30**					
9 Customer power	-0.18	1.05	-.20**	.11*	.11*	.12*	.08	.01	.01	-.02				
10 Employee pleasantness	1.57	1.52	-.02	-.11*	.12*	.04	-.01	-.05	.31**	-.18**	-.10			
11 Employee arousal	-1.46	1.70	-.00	.07	.14**	.10	.07	.25**	-.32**	.31**	.06	-.53**		
12 Employee power	1.03	1.25	.27**	.00	-.25**	-.09	-.02	-.16**	.05	.09	-.23**	-.22*	-.24*	
13 Both male dyad[c]	0.32	0.47	.57**	-.45**	.03	-.02	.64**	.22**	.09	-.14*	-.09	.08	-.06	.14**
14 Mixed gender dyad[c]	0.43	0.50	-.18**	.05	.08	.09	-.07	-.04	-.13*	.00	.07	-.02	.08	-.08

Note: $N = 345$. [a] 0 = university counseling. [b] 0 = female, 1 = male. [c] 0 = female dyad
* $p < .05$. ** $p < .01$. Two-tailed tests.

Table 2

Results of HLM analyses

	Criterion					
	Customer pleasantness		Customer arousal		Customer power	
	Gamma coefficients	SE	Gamma coefficients	SE	Gamma coefficients	SE
Encounter level variables (Level 1)						
Context: Computer retail	0.175	0.312	0.691	0.524	-0.410	0.332
Context: Travel agency	-0.266	0.299	1.270*	0.510	0.182	0.322
Context: Insurance agency	0.322	0.290	0.157	0.487	0.089	0.306
Duration of encounter	0.006*	0.003	-0.003	0.004	0.003	0.003
Customer age	-0.008	0.006	0.002	0.008	-0.003	0.005
Customer pleasantness			-0.227**	0.070	0.029	0.047
Customer arousal	-0.138***	0.041			-0.016	0.036
Customer power	0.046	0.064	-0.038	0.083		
Employee pleasantness	0.146**	0.052	0.054	0.068	-0.057	0.045
Employee arousal	-0.130**	0.050	0.242***	0.066	-0.035	0.046
Employee power	-0.006	0.059	0.166*	0.079	-0.163**	0.051
Male dyad	-0.371	0.239	-0.358	0.319	0.382*	0.212
Mixed dyad	-0.520**	0.177	-0.294	0.233	0.275	0.154
Male dyad x employee pleasantness	-0.013	0.118				
Mixed dyad x employee pleasantness	0.007	0.103				
Male dyad x employee arousal			-0.358	0.319		
Mixed dyad x employee arousal			-0.288*	0.125		
Male dyad x employee power					-0.100	0.127

Mixed dyad x employee power					-0.069	0.127

Employee level variables (Level 2)

Employee age	0.000	0.010	0.014	0.018	-0.008	0.011

Notes: Level 1 (service interactions): N = 345; Level 2 (service employees): N = 29; [a] 0 = female, 1 = male

* $p < .05$. ** $p < .01$. *** $p < .001$; one-tailed tests

Figure 1: Graphical depiction of the moderating effect of dyad composition on the

relationship between employee arousal and customer arousal