### The Effect of Emotional Climates in Leader-Follower and Employee-Customer Relationships in a Service Context

DISSERTATION of the University of St. Gallen, School of Management, Economics, Law, Social Sciences and International Affairs to obtain the title of Doctor of Philosophy in Management

submitted by

### Janice Karen Ashia Spiess

from

Uhwiesen - Andelfingen (Zürich)

Approved on the application of

#### Prof. Dr. Jürg Manella

and

**Prof. Dr. Thomas Bieger** 

Dissertation no. 3936

Zentralstelle UZH, 2011

The University of St. Gallen, School of Management, Economics, Law, Social Sciences and International Affairs hereby consents to the printing of the present dissertation, without hereby expressing any opinion on the views herein expressed.

St. Gallen, May 13, 2011

The President:

Prof. Dr. Thomas Bieger

For my family.

## Acknowledgments

First and foremost, I would like to thank my family for loving me unconditionally, for supporting me incessantly, for believing in me irrevocably, and for always being there for me, even when they are miles away at times.

I would like to thank my advisors, Prof. Dr. Jürg Manella and Prof. Dr. Thomas Bieger, for giving me the freedom to develop my own ideas, and for making this venture possible for me.

In addition, I would like to thank everyone who helped with planning, improving, and implementing my studies. Namely, my dear friend and 'roomie', Isabelle Engeler, for her remarks, insights, and her translation skills, my friend and former colleague, Joël Jent, for his knowledgeable comments on how to translate my research into film, Eva Allenbach and Christian Intorp for their acting skills, my friend and former class mate, Stefan Ilg, for standing behind the camera for hours, and the team of BN Graphics, especially my long-time dear friend, Nicole Schouwey, for providing the film location. I would like to thank the managers of the service organizations for their interest and cooperation, and for motivating their employees to participate in the survey. Thus, my gratitude goes out to all subjects that participated in my studies. Without their prompt participation, this work could not have been completed.

I would like to thank many more who have been supportive of me and my ideas, who are dear friends and have shared my laughter and listened to my endless moaning, but have always believed in my ability to achieve my goals even when I had my doubts. You know who you are.

And lastly, I want to thank a very special friend for wanting to be with me in the worst of times, for believing in me, for giving me endless support, and for being a smart-ass that makes me laugh.

Janice Karen Ashia Spiess

# Zusammenfassung

Das Linkage Research Model und die Service-Profit Chain beschreiben Kausalzusammenhänge zwischen Führungspraktiken, Einflüssen auf Mitarbeiter- und Kundenebene, und nachfolgenden Auswirkungen auf organisationaler Ebene. Die vorliegende Arbeit fokussiert die Beziehung zwischen Führungspersonen und nachgestellten Mitarbeitenden sowie zwischen Mitarbeitenden und Kunden in einem Dienstleistungskontext.

Forschungsbemühungen haben gezeigt, dass Elemente des Linkage Research Model und der Service-Profit Chain mit Klimas in Verbindung stehen, welche als geteilte Wahrnehmungen von Individuen in einem gegebenen Umfeld definiert werden. Diese Wahrnehmungen steuern die Kognitionen und Verhaltensweisen von Personen, indem sie Informationen dazu liefern, wie Situationen interpretiert werden können, und wie man sich zu verhalten hat. Stimmungen und Emotionen sind ebenso einflussreich. Daher wird postuliert, dass Individuen sich emotionaler Klimas bedienen, um persönliche und organisationale Ziele zu erreichen. Führungspersonen zeigen bestimmte emotionale Ausdrucks- und Verhaltensweisen, um erwünschtes Mitarbeiterverhalten auszulösen. In ähnlicher Weise verwenden Mitarbeiter spezifische Emotionsausdrücke, um erwünschtes Kundenverhalten zu initiieren.

Die vorliegende Dissertation untersucht den Einfluss von emotionalen Klimas in der Beziehung zwischen Führungspersonen und Mitarbeitenden, respektive in der Beziehung zwischen Mitarbeitenden und Kunden in einem Dienstleistungskontext. Zur Überprüfung der Annahmen wurde eine Umfrage durchgeführt, um die Effekte des Führungsverhaltens von Vorgesetzten auf die Stimmung der nachgestellten Mitarbeitenden, die Arbeitszufriedenheit und arbeitsbezogene Lebensqualität, das affektive organisationale Commitment und Verhaltensabsichten, und letztlich auf das Hilfeverhalten der Arbeitskollegen zu untersuchen. Zudem wurde ein Experiment durchgeführt, um die Auswirkungen des Angestelltenverhaltens auf die Kundenstimmung, die Einschätzungen der Kundenzufriedenheit und Dienstleistungsqualität, und die erwünschten und unerwünschten Verhaltensabsichten der Kunden zu überprüfen. Die Ergebnisse geben Aufschluss über die bedeutungsvollen Einflüsse auf die oben genannten Beziehungen. Ausserdem liefert die Arbeit wichtige Beiträge für Theorie und Praxis.

## Abstract

The linkage research model and the service-profit chain propose causal links between leadership practices, employee and customer results, and consequently, impacts on organizational-level. Thus, present work focuses on the relationships between leaders and followers, and between employees and customers in a service context.

Research has shown that elements of the linkage research model and the service-profit chain relate to climates, which are defined as shared perceptions of individuals in a given environment. These perceptions shape the thoughts and behaviors of people by providing individuals with information on how to interpret situations, and serve as a behavioral frame. As moods and emotions are equally influential on individuals and groups, it is proposed, that individuals make use of emotional climates in order to pursue personal or organizational goals. Leaders use specific emotional displays and behaviors that lead to desired employee behavior. Similarly, service employees portray specific emotions in order to achieve positive customer outcomes.

Present dissertation addresses these issues by examining the influences of emotional climates within leader-follower relationships, and employee-customer relationships in a service context. A survey was conducted to test assumptions regarding the impact of superiors' leader behaviors and practices that take employees' needs into account on subordinates' mood, job satisfaction, quality of work life, affective organizational commitment, altruism, and behavioral intentions. Furthermore, an experiment was designed to test the influences of employee behavior on customers' mood, appraisals of satisfaction and service quality, and desirable and undesirable behavioral intentions. The findings provided strong proof for the meaningful effects within afore mentioned relationships. Moreover, important theoretical and managerial conclusions were drawn.

# Table of contents

| 1. | Int  | troduction  | 1  |
|----|------|---|----|
| 2. | Co   | onceptual Development   | 4  |
|    | 2.1. | Service-Profit Chain and Linkage Research Model                 | 4  |
|    | 2.2. | Research on Climates  | 11 |
|    | 2.3. | Emotional Climate   | 16 |
|    | 2.3  | 3.1. Terminology  | 17 |
|    | 2.3  | 3.2. Emotional Contagion  | 18 |
|    | 2.3  | 3.3. Comparison Processes                                       | 24 |
|    | 2.3  | 3.4. The Effects of Mood and Emotion                            | 27 |
| 3. | En   | notional Climate in a Service Company                           | 34 |
|    | 3.1. | Empowerment   | 34 |
|    | 3.2. | Leadership  | 36 |
|    | 3.3. | Positive emotional climate-practices                            | 38 |
|    | 3.4. | Hypotheses development  | 39 |
|    | 3.5. | Survey on the emotional climate in a work environment           | 42 |
|    | 3.5  | 5.1. Participants   | 42 |
|    | 3.5  | 5.2. Measures   | 43 |
|    | 3.6. | Results   | 46 |
|    | 3.6  | 5.1. Validity and reliability assessment                        | 46 |
|    | 3.6  | 5.2. Hypothesis testing   | 50 |
|    | 3.7. | Discussion  | 68 |
| 4. | En   | notional Climate in a Service Interaction                       | 79 |
|    | 4.1. | The role of mood and emotion in service interactions            | 79 |
|    | 4.2. | Hypotheses development  | 83 |
|    | 4.3. | Experiment about the emotional climate in a service interaction | 85 |
|    | 4.3  | 3.1. Stimuli development  | 86 |

| 4.3.2. Measures                                    |     |
|--|-----|
| 4.3.3. Pretest                                     |     |
| 4.3.4. Principal study                             |     |
| 4.4. Results                                       |     |
| 4.4.1. Manipulation checks                         | 93  |
| 4.4.2. Validity and reliability assessment         | 95  |
| 4.4.3. Hypotheses testing                          |     |
| 4.5. Discussion                                    | 105 |
| 5. General discussion                              | 111 |
| References   | 115 |
| Appendix 1: Scales used (Survey)                   | 127 |
| Appendix 2: t-tests per company (Survey)           | 130 |
| Appendix 3: Script used for the video (Experiment) | 131 |
| Appendix 4: Interaction descriptions (Experiment)  | 138 |
| Appendix 5: Scales used (Experiment)               | 139 |
| Appendix 6: Assumptions for (M)ANOVA (Experiment)  | 141 |
| Appendix 7: Factor loadings (Experiment)           |     |

# List of figures

| Figure 1: The service-profit chain   | 6   |
|--|-----|
| Figure 2: The linkage research model   |     |
| Figure 3: Model of the hypothesized relationships in a service company       | 42  |
| Figure 4: Original measurement model, Models 1 and 2                         | 51  |
| Figure 5: Original measurement model, Models 3 and 4                         | 58  |
| Figure 6: Modified measurement model, Model 3                                | 59  |
| Figure 7: Modified measurement model, Model 4                                | 62  |
| Figure 8: Original measurement model, Model 5                                | 64  |
| Figure 9: Modified measurement model, Model 5                                | 65  |
| Figure 10: Modified measurement model, Model 6                               | 67  |
| Figure 11: Model of the hypothesized relationships in a service interaction  | 85  |
| Figure 12: Screenshots of the 4 conditions                                   | 88  |
| Figure 13: Mean ratings for mood, pre and post-stimulus                      | 99  |
| Figure 14: Mean ratings with respect to condition                            | 101 |
| Figure 15: Mean ratings with respect to mood                                 | 102 |
| Figure 16: Model of the service interaction with estimated path coefficients | 103 |

# List of tables

| Table 1: Measures used in the survey (Superiors)                              | 48    |
|---|-------|
| Table 2: Measures used in the survey (Subordinates)                           | 48    |
| Table 3: Maximum likelihood results for Model 1                               | 54    |
| Table 4: Maximum likelihood results for Model 2                               | 55    |
| Table 5: Differences in group means with respect to psychological empowerment | 57    |
| Table 6: Maximum likelihood results for Model 3                               | 60    |
| Table 7: Maximum likelihood results for Model 4                               | 63    |
| Table 8: Maximum likelihood results for Model 5                               | 66    |
| Table 9: Maximum likelihood results for Model 6                               | 68    |
| Table 10: Filming instructions  | 87    |
| Table 11: Crosstab of the male service worker-condition                       | 93    |
| Table 12: Crosstab of the female service worker-condition                     | 94    |
| Table 13: Measures used in the experiment                                     | 97    |
| Table 14: Influences of emotional displays on customer mood                   | 98    |
| Table 15: Influences of emotional displays                                    | . 100 |
| Table 16: Influences of customer mood   | . 101 |
| Table 17: Assessment of measurement models (PLS)                              | . 104 |
| Table 18: T-values and total effects of the overall model                     | . 105 |

## 1. Introduction

Affect is a crucial part of human life and meaningful on several levels. Moods and emotions impact an individual by influencing perception and attention, memory, information processing, judgments, and subsequently, behavior. But affect also plays an important role between individuals. The emotions and corresponding emotional expressions of one individual exert an influence on the emotions, cognitions, and behaviors of others, which in turn have an impact on the focal individual (i.e., emotion cycles, Hareli & Rafaeli, 2008). These processes are of conscious and/or subconscious nature.

Daily encounters between individuals entail verbal and non-verbal communication on the basis of affect, because people are emotions. Since it has been established, that affect is influential on several levels, it seems highly likely, that people consciously adapt their emotional display in pursuit of various goals, in order to exert an influence on others. Consequently, employees within a given service organization tend to influence one another when engaging in interactive behavior. Leaders use specific emotional expressions, and leader behaviors, that are believed to lead to desired employee behavior (e.g., Bono & Ilies, 2006; Johnson, 2008; Podsakoff et al., 1990; and so forth). Correspondingly, service employees portray specific emotions in order to influence customers to engage in favorable word-of-mouth, to return to the store, and promote other positive behaviors (e.g., Hennig-Thurau et al., 2006; Grandey et al., 2005; Pugh, 2001; and so forth).

According to the linkage research model and the service-profit chain, there are connections between the leader-follower relationship, and the employee-customer relationship. Leader behaviors and practices within a service organization are associated with employee satisfaction and loyalty, which are linked to service quality, customer satisfaction and loyalty, resulting in higher organizational performance, growth, and profitability (cf., Heskett et al., 1994; Wiley & Brooks, 2000).

Research has shown that elements of the linkage research model and the service-profit chain relate to servicescapes, typically described in terms of physical environments (cf., Bitner, 1992; Ezeh & Harris, 2007; Wakefield & Blodgett, 1996). However, non-tangible environments, so-called climates, have equally been linked to afore mentioned concepts (cf., Schneider, White, & Paul, 1998; Tsai, 2001).

Climates are atmospherical in nature and difficult to define, but can be instantly recognized and felt. Climates are influential and constantly change from being independent, mediating, or dependent variables (Schneider, Parkington, & Buxton, 1980). As such, they are difficult-to-imitate and can be defined in terms of a competitive advantage, because research has shown that perceptions of a positive climate have been linked to favorable outcomes at the individual, group, or organizational level (cf., Patterson et al., 2005; Schneider & Reichers, 1983).

Overall, climates affect individuals' emotional, cognitive, and behavioral processes. Although studies have shown that affect has a variety of effects on an individual, and shapes interactions between people, research on the affectivity of an environment is lacking. Present dissertation is based upon the assumption of emotional climates (and these include affectivity of any kind). In accordance with Schein (2000), emotional climates can be experienced by individuals in a given environment. Moreover, these climates are created through interactions and relationships between people, in accordance with Schneider, Parkington, and Buxton (1980), and Evans et al. (2009). Furthermore, emotional climates are conceptualized as individual-level perceptions, but it is likely that individuals in the same setting will have a high agreement on its quality, valence or intensity. An emotional climate will be relatively stable over time, but can be influenced and changed by individuals or groups. And finally, an emotional climate is largely based on a focus of interest.

Correspondingly, this dissertation aims to examine the influence of emotional climates in the leader-follower relationships in a service company, and in the service employeecustomer-relationships.

- (1) Does emotional climate have an influence in the context of leader-follower relationships with respect to employee mood, satisfaction, quality of work life, and behavioral outcomes?
- (2) Does emotional climate have an influence in the context of employee-customer relationships with respect to customer mood, satisfaction, service quality, and behavioral outcomes?

As businesses only exist, thrive, and succeed with the help of their employees, the study of the work environment aims to analyze the effect of leadership styles and leader practices that facilitate a positive emotional climate at work on individual-level outcomes, e.g. job satisfaction or affective commitment. Leadership is viewed as a key factor that impacts employee perceptions and has the ability to provide an enabling climate for employees, that is hypothesized to lead to positive outcomes. However, not

all leadership behaviors are equally effective. Therefore, differential effects are assumed. Further, as mentioned before, emotions play an important role within the employee-customer relationship. It is proposed, that service workers portraying desirable emotions during service interactions create a positive emotional climate, so that they are able to evoke positive emotions in customers, who then appraise the service encounter more favorably. In contrast, the display of negative emotions will lead to negative customer outcomes. With regard to these contexts, the dimensions of the climate concept will be fitted with respect to the specific focus (cf., Burke, Borucki, & Kaufman, 2002).

The goals of the dissertation are (1) to combine relevant findings from research in psychology and marketing, (2) to approach the service-profit-chain, linkage research, and the concept of climates from a holistic perspective by determining the relevancy of affect and behavior in the leader-follower relationship, and employee-customer relationship, (3) to formulate and test hypotheses concerning relevant factors in afore mentioned relationships, in order to (4) highlight the impact of affect, and (5) draw important conclusions regarding the research questions stated above.

Present dissertation is structured as follows: Chapter 1 is a short introduction into the research topic. Chapter 2 provides an overview over important concepts as a basis for understanding. Chapter 3 is dedicated to the study of the work environment in a service organization. Chapter 4 deals with the study on emotional climate in a service interaction. And lastly, in Chapter 5, the findings of both studies are discussed from a general perspective.

## 2. Conceptual Development

This chapter will present a review of conceptual foundations that connect the leader with the follower, and the employee with the customer. Further, extended information on theoretical concepts and approaches to affectivity in so-called servicescapes or climates shall be provided in order to understand the basis of research in this area and as such, highlight the impact of affect in personal interactions.

First, we will gain insights on the focal relationships by reviewing the service-profit chain and the linkage research model, before dealing with research on climates, the transfer or adoption of another person's affective state, and finally discussing the effects of moods and emotions.

## 2.1. Service-Profit Chain and Linkage Research Model

The *service-profit chain*, also known as the *satisfaction-profit framework* (Söderlund & Rosengren, 2007, p. 123), proposes causal links between employees' productivity, their loyalty towards the organization, employee satisfaction, customer loyalty, and an organization's profitability (Heskett et al., 1994). Profit and growth are a direct consequence of customer loyalty, whereas customer loyalty is a result of customer satisfaction induced by the value of product or service offerings. High quality of products and services originate from satisfied, loyal, and productive employees. And finally, Heskett et al. (1994) propose that worker satisfaction can be derived from an enabling work environment in which the employee feels supported by the company in order to deliver quality service to its customers. Hence, attention should be given to customers as well as to employees.

Customer satisfaction is the result of continuous appraisals about the quality received. By providing valuable service offerings through a friendly and competent service provider, high levels of perceived service quality can be reached which will lead to higher levels of customer satisfaction. Over time, this can lead to customer loyalty (Yee et al., 2009). Loyal customers have a strong intention to make repeated purchases and engage in positive word-of-mouth. Heskett et al. (1994) emphasize the focus on customer retention. As such, not only quantity but quality is important, i.e., the sustainability of customers (customer lifetime value, cf., Zhang, Dixit, & Friedmann, 2010). Satisfied and loyal customers are good customers as they take over the role of promoters or ambassadors for an organization. The change of focus mentioned above, results in revised leadership and adapted human resource practices which can be defined as internal marketing tools (Wiesecke et al, 2009). Companies start investing in their employees, in job-related training, and in technology that supports them (Heskett et al., 1994). Higher employee satisfaction is a result of continuous positive appraisals. Hence, providing a work environment in which the employee feels happy, is satisfied, and receives support, is likely to result in higher loyalty and commitment. Loyal employees will continue to work for an organization, will tend to talk positively about the organization, will work longer hours, invest time and energy, and so forth. Employees that are more intrinsically motivated and more satisfied, are also more likely to take on responsibility and be proud to represent an organization. According to Heskett et al., *internal service quality* drives employees shave toward their jobs, colleagues, and companies" (Heskett et al., 1994, p. 168). Leadership and human resource management should be designed to recognize employees' needs, and provide an enabling climate for them to work in.

Schlesinger and Heskett (1991, p. 72) combine these views and state that "capable workers who are well trained and fairly compensated provide better service, need less supervision, and are much more likely to stay on the job. As a result, their customers are likely to be more satisfied, return more often, and perhaps even purchase more than they otherwise would".

In summary, a company needs to increase their service workers' satisfaction and loyalty, or decrease dissatisfaction and intentions to quit by providing a positive, enabling work environment for its employees, so that they, in turn, have the ability to provide quality services for the customers, enhance customer satisfaction and loyalty, which is likely to result in a better overall company performance (Figure 1).

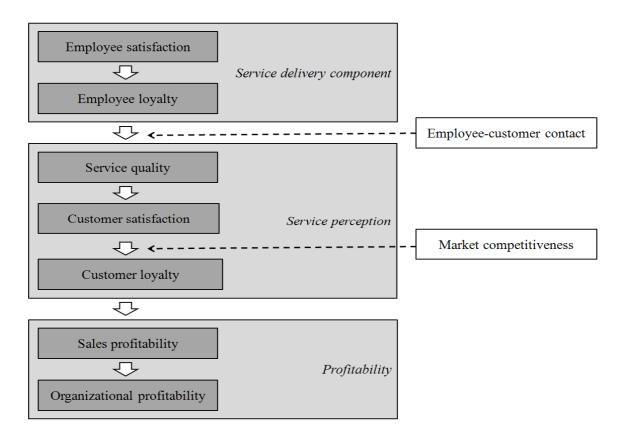


Figure 1: The service-profit chain (cf., Heskett et al., 1994, p. 166; Yee et al., 2009, p. 626)

Overall, the assumptions of the service-profit chain make sense, and have been widely used to explain links in the employee-customer relationship, and organizational outcomes (cf., Homburg, Wiesecke, & Hoyer, 2009; Söderlund & Rosengren, 2007; Pugh, 2001). Still, Yee et al. (2009) report some methodological and theoretical issues which have not been addressed yet:

First, past research has not empirically established the causal relationships between the key constructs of the S-PC<sup>1</sup>. Second, researchers have moved from documenting the existence of the putative relationships in the S-PC to uncovering the moderating effects of environmental factors, (...) on the direction and strength of these relationships. Third, the nature of the linkages between the pertinent constructs in the S-PC needs further study (p. 619).

Yee et al. have a point by suggesting that the causal links cannot be confirmed, since most studies have used cross-sectional designs to examine the effects of the serviceprofit chain. Be that as it may, the studies that have been conducted with the service-

<sup>&</sup>lt;sup>1</sup> i.e., service-profit chain

profit chain at focus, have provided evidence that there are high correlations and significant positive paths between specific elements (cf., Opoku et al., 2009; Söderlund & Rosengren, 2007; Grandey et al., 2005). Furthermore, it seems like a rather difficult task to assess all elements of the service-profit chain at once, and take the effects of a time delay between increases in satisfaction and loyalty of service workers, expected increases in customer satisfaction and loyalty, and further, overall organizational performance into account.

However, I concur with Yee et al. (2009) that organizational performance is likely to be moderated by environmental variables not addressed by the service-profit chain. The authors propose that the competitiveness of a firm in a given market has to be considered. "In a highly competitive market where there are many alternative products and services for customers to select from and the cost of switching is low, customers are not loyal unless they are fully satisfied. Conversely, in a monopolistic market, customer satisfaction seems to have very little impact on loyalty" (Yee et al., p. 624).

Another moderating factor mentioned by Yee et al. (2009) is the contact or degree of interaction between an employee and a consumer. Here though, I do not entirely agree with Yee et al. I agree that there are no details with respect to the employee-customer contact specified in conceptualizations of the service-profit chain, but that does not equal a lack of research in this area. In fact, there are many studies that have addressed the personal interaction between service workers and customers (cf., Hennig-Thurau et al., 2006; Smith & Bolton, 2002; Tsai & Huang, 2002; Pugh, 2001, and so forth).

Lastly, Yee et al. (2009) comment on the nature of the linkages which has not received much attention to date. Not all linkages can be assumed as being linear. "This is supported by Jones and Sasser's (1995) findings showing that customer loyalty will increase marginally at high levels on the customer satisfaction continuum, and rise considerably at higher levels of customer satisfaction" (cit. in Yee et al., 2009, p. 625).

Thus, there might not be an abundance of research on all proposed relations within the service-profit chain, but there have been studies that have proven its implicit and explicit assumptions. Moreover, other factors, such as leadership practices are not considered a constitutive element of the service-profit chain, although Heskett et al. (1994) emphasize its importance. Furthermore, specific work environments (of physical or non-physical nature) are also neglected by the service-profit chain, even though, positive, supportive environments, also referred to as internal quality (Heskett et al., 1994), are deemed necessary for employees to be satisfied and deliver high quality services.

Linkage research attempts to integrate and correlate data that concerns and is collected from employees, with data of other key organizational databases in order to provide a more comprehensive model of the relationships (Wiley & Brooks, 2000). The *linkage research model* (Figure 2), "suggests that the more present certain organizational or leadership practices are in a given work environment, the more energized and productive the workforce. In turn, the more energized and productive the workforce, the greater the satisfaction of customers and the stronger the long-term business performance of the organization" (Wiley & Brooks, 2000, p. 177).

As such, the linkage research model also captures the employee-customer relationship in accordance with the service-profit chain, but also emphasizes linkages between a leader's practices and outcomes on his or her followers. There are many concurrent and longitudinal studies that found positive links between the elements of the model (cf., Opoku et al., 2009; Brundin, Patzelt, & Shepherd, 2008; Ozcelik et al., 2008; Bono & Ilies, 2006; and so forth).

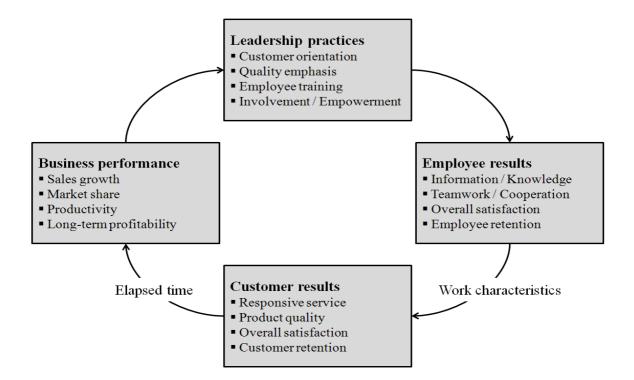


Figure 2: The linkage research model (cf., Wiley & Brooks, 2000, p. 178)

Research has shown that elements of the service-profit chain and the linkage research model, relate to the physical environment. In Kotler's 1973 article on the *atmospherics of marketing*, the emphasis lies not only on the product or service offering which individuals react to but also on "the *place* where it is bought or consumed" (p. 48). The atmosphere was considered influential on the decision to buy or to consume a service. Although it seems quite strange to hear Kotler speak solely of "*the business man*" and "*the man*" as a buyer, he provides some very important insights:

- "man has taken steps to enhance his everyday work environment",
- "aesthetics represent a desire to help men work under dignified conditions", and
- "aesthetics are also appearing in the *places where men buy*" (p. 49).

In Kotler's definition, using the entity of atmospherics entails "the conscious designing of space to create certain effects in buyers", it "is the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability" (1973, p. 50). This (early) perspective puts a lot of emphasis on the buyer and his emotional reactions, but neglects the employee who works in these environments and misses to include other individual reactions (e.g., evaluative cognitions or behavior). Here, atmosphere represents a limited external marketing tool which influences the buying behavior of a customer (cf., Ezeh & Harris, 2007).

Baker (1986; cit. in Hightower, 2003, p. 86) also views the physical environment from the perspective of a consumer, but proposes a dimensionality consisting of ambient, design, and social factors. Hightower (2003, p. 87) adopts the three dimensions, and suggests that ambient factors influence individuals subconsciously. People tend to expect specific ambient factors (e.g., brightness of a room, agreeable temperature, etc.), but are oblivious to their existence, or at least, do not think about them consciously. Their absence or unfavorable occurrence however, is immediately noticed (ibid., p. 88). Design factors are described as salient aspects of the environment, and are either functional (layout, comfort, etc.) or aesthetic (color, style, material, etc.). The "people component" is denoted as the social or social interaction factor, and refers to the employees (e.g., appearance, behavior), or customers in a given situation (e.g., crowding, behavior) (Hightower, 2003, p. 88).

In my opinion, Bitner (1992) provides a more comprehensive view of *servicescapes* or *service environments*, i.e., tangible aspects of the physical environment that influence interactions which take place in it; be it interactions between leaders and followers, between employees on the same organizational level, or between employees and

customers. She emphasizes that the environment "affects *both* consumers and employees" (ibid., p. 58), and has multiple purposes (e.g., a tool that communicates a service organization's image or purpose). Thus, Bitner also assumes several dimensions behind the concept, and emphasizes that her model is based on customers' *and* employees' perceptions. She groups the aspects into (a) *ambient conditions* (temperature, lighting, noise, music, etc.), (b) *space/function* (layout, functionality, etc.), and (c) *signs, symbols and artifacts* (signage, decor, etc.), and states that people react in emotional, cognitive, and physiological ways to their physical surroundings (Bitner, 1992, p. 60).

Wakefield and Blodgett (1994, 1996) conducted several studies to test underlying assumptions concerning the impact of physical surroundings. They concur that individuals will react emotionally and cognitively to their perceptions of an environment, and consequently, will react with approach or avoidance behavior (Wakefield & Blodgett, 1994, p. 68). Further, they introduce a typology of the importance of servicescapes, in which they differentiate between the type of service (functional vs. leisure) and the time spent in the environment (low - moderate extended). Despite the fact that the authors focus on physical surroundings and leisure services such as sports events, important conclusions can be drawn. With respect to the influence of a certain environment (be it of physical or emotional nature), the influence is more important or higher, when more time is spent in a given environment. One can easily imagine that a full-time employee who is at work during most of his or her time spent awake, is more likely to be influenced by the company's work environment compared to a part-time employee who only spends a few hours in that work setting. On the other hand, the influence and importance of an environment is more profound in leisure activities in comparison to functional activities. The authors propose that, while the work environment (functional) plays a crucial part for an employee's wellbeing, the physical surroundings are even more influential, and apparent, in an amusement park (symbolic), where there are attractions, roller coasters, and food courts.

In short, servicescapes and their multiple facets have an important influence on an individual's feelings, thoughts, and behaviors. One big issue which has not been addressed yet, is the lack of moods and emotions as determinants, or rather antecedents of people's emotions, thoughts, and behaviors because they tend to shape one's perception of a given work environment. Thus, the following chapters are dedicated to the research on different perceptions of work environments, also referred

to as climates, and subsequently, the importance of affective states with regard to individual-level outcomes.

## **2.2. Research on Climates**

A climate is per definition diffuse, non-tangible, and atmospherical in its nature. Schein (2000) posits that "climate is embedded in the physical look of the place, the emotionality exhibited by employees, the experiences of visitors or new employees upon entry, and myriad other artifacts that are seen, heard, and felt" (p. xxiv). A specific climate is difficult to describe in words and hard to measure, but it can be felt and recognized when walking into a room, hall or building (Evans et al., 2009). Climates have been described as perceptions, although there have been conceptual inconsistencies over time (Patterson et al., 2005).

Climate perceptions "serve as the individual's cognitive map of how the organization functions and, therefore, help determine what is appropriate behavior in a given situation" (Koys & DeCotiis, 1991, p. 266). Koys and DeCotiis (1991) also mention several aspects of climates in accordance with Schneider, Parkington, and Buxton (1980), and Schneider and Reichers (1983):

- "Climate perceptions summarize an individual's *description* of his or her organizational experiences rather than his or her affective or evaluative reaction to what has been experienced" (Koys & DeCotiis, 1991, p. 266).
- (2) Perceptions of climates are comparatively *stable over time* (Campbell, Dunnette, Lawler, & Weick, 1970; cit. in Koys & DeCotiis, 1991, p. 266).
- (3) Individuals in an organizational unit will usually have a *high consensus* in their perceptions of climate. This allows for an aggregation of perceptions (Patterson et al., 2005). "Still, multiple climates may exist within the same organization since organizational life can be perceptually different for members at different organizational levels, at different locations, or in different units within the same location" (Litwin & Stringer, 1968; cit. in Koys & DeCotiis, 1991, p. 266).
- (4) And lastly, these climates are usually *for something* (Schneider, Parkington, & Buxton, 1980; Schneider & Reichers, 1983).

### **Etiology of climates**

Payne and Pugh (1976) elaborate on a *structural approach* concerning the etiology of climates (cit. in Schneider & Reichers, 1983, p. 25ff). From their perspective, climates are in fact a result of organizational structure. Thus, size, hierarchy, technology, rules and regulations, and so forth, form climates that influence people's feelings, thoughts, and behaviors. However, Schneider and Reichers (1983) also state that "structuralists do not deny the influence of the individual's own personality in determining the meaning of organizational events, but they give structural determinants primary consideration because of their 'objective' nature" (p. 26). The authors point out, that although some studies have shown significant outcomes, there have been empirical inconsistencies with this approach.

Schneider (1983) describes a more *individualistic view* (cit. in Schneider & Reichers, 1983, p. 26ff). The reason why people in organizations have similar perceptions of the climates at work lies in the process of "*selection-attraction-attrition*". In a selection process, organizations are in search of applicants, i.e., new employees that "fit". This applies not only to skills and competences but also to the organization's image, culture, and entity as a whole. Further, an individual is likely to be attracted to an organization - for different reasons - when applying for a job, or when staying with the company over time. Similarly, one can assume that a person will probably quit his or her job, if he or she does not feel "at home" or committed to an organization. Schneider (1983; cit. in Schneider & Reichers, 1983, p. 26ff) therefore posits that the employees of a company are likely to share common beliefs and work ethics. Schneider and Reichers' (1983) critique of this approach refers to the sole emphasis on the individual as the source of climates and the omittance of environmental circumstances.

In Schneider and Reichers' article (1983), a "new" perspective on the etiology of climates is presented which basically states the obvious: *the individual and the environment determine and influence each other*.

The climates of organizations emerge out of the naturally occurring interactions of people in pursuit of various personal and organizational goals. Climates, in turn, affect the way people and organizations proceed in their pursuit of goals. Climates are then, at various times, independent, mediating, and dependent variables (Schneider, Parkington, & Buxton, 1980, p. 254).

## **Important differentiations**

There is an important differentiation to be made between **climate** and **culture**. Culture "refers to those elements of a group or organization that are most stable and least malleable. Culture is the result of a complex group learning process that is only partially influenced by leader behavior" (Schein, 1992, p. 5). Schein also offers a formal definition of culture:

A pattern of shared basic assumptions that the group learned as it solved its problems of external adaption and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (ibid., p. 12).

Thus, culture is a complex, multi-level phenomenon that is stable over time and is integrated into a larger entity (such as an organization). Climate is referred to as a changeable cultural artifact resulting from exposed values and shared tacit assumptions (cf., Schein, 1992).

Further, there is a distinction between the concepts of **organizational climate** and **psychological climate**. "Psychological climates are the meanings an individual attaches to a work context, while organizational climates are the summated, averaged meanings that people attach to a particular feature of the setting" (Schneider & Reichers, 1983, p. 21) Psychological climate refers to an individual's perception (individual-level of analysis), organizational climate is a concept on group level. Each climate is considered as a higher-order factor that entails multiple dimensions of employee perceptions about a given environment (Koys & DeCotiis, 1991).

**Organizational climate** is generally defined as a multi-dimensional concept, but the approaches differ somewhat. As Schneider (1975; cit. in Patterson et al., 2005, p. 381) views it, there is no such thing as a global organizational climate concept. He states that organizations may have many different climates but they all stand *for* something (e.g., for service<sup>2</sup>, for safety, etc.). Therefore, the dimensions will differ in accordance with climate specification.

In contrast, there is more and more research that is built upon the notion of a general organizational climate concept and measurement thereof. The current lack of measures

<sup>&</sup>lt;sup>2</sup> For further interest in service climate or climate for service, the reader may consult: Schneider, Bowen, Ehrhart, and Holcombe (2000), Schneider, White, and Paul (1998), Schneider, Wheeler, and Cox (1992), Schneider (1975), Schneider and Bartlett (1970), and Schneider and Bartlett (1968).

and further development is certainly due to inconsistencies in theoretical conceptualizations. Patterson et al. (2005) describe the Organizational Climate Questionnaire (OCQ) by Litwin and Stringer (1968) to be "one of the best-known general measures of organizational climate" but mention several weaknesses. The instrument entails 50 items that measure nine climate dimensions, although studies have shown that fewer dimensions represent an organization's climate better (e.g., Sims & LaFollette, 1975; Muchinsky, 1976; cit. in Patterson et al., 2005, p. 383). In addition, there have been reports about inconsistencies due to the unit of analysis, or type of respondents. Patterson et al. (2005) have attempted to address these issues and introduce their Organizational Climate Measure (OCM). "The measure is designed to be theoretically grounded, to explicitly and consistently specify the appropriate frame of reference, and to be applicable across a range of work settings and to target all employee levels (lower level as well as managerial employees)" (ibid., p. 383). Overall, the measure seems to be very well validated and comprehensive, but might not be very economical as each subscale is represented by 4-5 items.

As mentioned, **psychological climate** is an individual-level concept that refers to an individual's perceptions of situational events. Psychological climate is subjective, but it is highly likely that team members in an organization (or business unit) tend to share their views about existing climates. Consequently, Koys and DeCotiis (1991) define psychological climate as an "experiential-based, multi-dimensional, and enduring perceptual phenomenon which is widely shared by the members of a given organizational unit" (p. 266). Burke, Borucki, and Kaufman (2002) describe this as the social constructionist perspective. The perceptions are derived from daily interactions between individuals in a work setting and are in fact "constructions" thereof (ibid., p. 327). "Its primary function is to cue and shape individual behavior towards the modes of behavior dictated by organizational demands" (Koys & DeCotiis, 1991, p. 266). A person uses his or her perceptions as guidance in order to evaluate feelings, thoughts, and behaviors. "Climate research within the social constructionist perspective is largely based on choosing a referent or focus of interest and then measuring employee perceptions of work environment characteristics" (Burke, Borucki, & Kaufman, 2002, p. 327). The dimensions of the climate concept are fitted with respect to the special focus. In consequence, they may differ across situations.

What Burke, Borucki, and Kaufman (2002) refer to as the *general psychological climate perspective*, is, in fact, an overall concept of psychological climate, with the addition of an (emotional) evaluation of the work environment as being beneficial or

threatening. Further, this approach puts an emphasis on personal values<sup>3</sup>. Values determine the personal relevance of events and have an impact on interpretations of a given environment. Researchers in this field promote the idea of a higher-order factor labeled general psychological climate,  $PC_g$ , that consists of multiple core dimensions (Burke, Borucki, & Kaufman, 2002, p. 328).

A third approach to psychological climate originally proposed by Burke, Borucki, and Hurley (1992) can be referred to as the *multiple stakeholder perspective*. "In addition to personal values, values espoused by the organization towards key stakeholder groups are likely to engender additional schemas for making sense of one's work environment" (Burke, Borucki, & Kaufman, 2002, p. 329). This position reflects the notion that individuals not only evaluate work settings with respect to their own wellbeing but also with respect to the well-being of other stakeholders (cf., Burke, Borucki, & Hurley, 1992; Burke, Borucki, & Kaufman, 2002). This multiple stakeholder perspective also incorporates the use of general or core dimensions for assessing an individual's personal well-being, as well as stakeholder-specific dimensions (Burke, Borucki, & Kaufman, 2002).

Koys and DeCotiis' (1991) idea of psychological climate resembles the general psychological climate perspective. In short, they define psychological climate as an individual but widely shared perception of only one key stakeholder: the employee. The concept is based on multiple dimensions but they do not emphasize the role of evaluations. In a literature review, Koys and DeCotiis found over 80 different dimensions of psychological climate. In their intention to develop an appropriate measurement for psychological climate, they successfully extracted eight factors that capture the (majority of) perceptions of psychological climate on an individual level. Their instrument has been used widely. For instance, in Martin and Bush's 2006 article on the effect of a sales manager's perceptions of psychological climate on the perceptions of sales subordinates, or in the examination of the relationship between psychological climate and salesperson-sales manager trust in sales organizations by Strutton, Pelton, and Lumpkin (1993). Klem and Schlechter (2008) examined the relationship between leader emotional intelligence and psychological climate, while Lemmergaard and Lauridsen (2008) enhanced an ethical-climate model with Koys and DeCotiis' dimension of autonomy to assess the ethical climate of Danish firms.

<sup>&</sup>lt;sup>3</sup> "Although the social constructionist perspective does not explicitly recognize the role of personal values, (...) theoretical arguments pertaining to the attraction, recruitment, and retention of individuals to organizations with similar individual characteristics suggest that these individuals possess similar personal values" (Burke, Borucki, & Kaufman, 2002, p. 328). See also Schneider and Reichers (1983).

In Bitner's model (1992, p. 59), the objective environmental factors and subsequent internal reactions only capture part of what happens in a specific setting. Bitner correctly states, that social interactions are also affected (ibid., p. 61) but does not take into account that individuals not only react to physical surroundings, but also to their perceptions of current non-tangible climates, and to moods or emotions of other people in the same environment. Moods and emotions are contagious and can be caught by others among groups and organizations (Barsade, 2002; Brundin, Patzelt, & Shepherd, 2008). Further, Hareli and Rafaeli (2008) introduce so-called emotion circles, reciprocal interpersonal influences of emotions, which emphasize the cyclical nature of emotional (or mood) contagion: "one person's emotion is a factor that can shape the behaviors, thoughts and emotions of other people, and that emotion operates in cycles that can involve multiple people in a process of reciprocal influence" (p. 36). This view incorporates the notion, that not only individuals in an interaction can be influenced but also groups or teams (cf., Sy, Côté, & Saavedra, 2005). Hareli and Rafaeli state that "the igniting forces in the 'emotion cycles' we discuss are one agent's emotions. Others' reactions may be emotions as well, but elements of the cycle can also include cognitions, attributions and behaviors" (cf., Tiedens, 2000; cit. in Hareli & Rafaeli, 2008, p. 37).

In essence, moods and emotions can be determining, mediating, or moderating factors of other people's affects, thoughts, and behaviors in a given environment. The following chapters provide an overview over terminology, introduce processes of emotion and mood contagion or adoption, and highlight the importance of affectivity in interactions.

## 2.3. Emotional Climate

Moods and emotions are a crucial part of life and influential on several levels. They can have an impact on the individual that currently experiences them, but also affect others that interact with the focal individual. This work is based upon the notion that emotional climates (and these include affectivity of any kind) exist. In accordance with Schein (2000), current emotional climates can be experienced by individuals in a given environment. Moreover, these climates are created through interactions and relationships between people, in accordance with Schneider, Parkington, and Buxton (1980), and Evans et al. (2009). Furthermore, emotional climates are conceptualized as individual-level perceptions, but it is likely that individuals in the same setting will

have a high agreement on its quality, valence or intensity. An emotional climate will be relatively stable over time, but can be influenced and changed by individuals or groups. And finally, with respect to the social constructionist perspective mentioned above, an emotional climate is largely based on choosing a referent or focus of interest. For instance, the emotional climate practices of a leader will influence followers' perceptions in a service organization, whereas emotional displays of service workers will impact customer perceptions in a service interaction. In these contexts, the dimensions of the climate concept are fitted with respect to the special focus, and therefore differ across situations (cf., Burke, Borucki, & Kaufman, 2002).

## 2.3.1. Terminology

1884 William James tried to explain what an emotion is on 18 pages. To date, a definition that contains all relevant elements, is universally accepted or widely used, is lacking. The definitions have not been satisfactory. However, there has been some consensus on characteristic elements of the concepts.

## Mood and emotion, affect and feeling

As mentioned, the differentiation of mood and emotion, let alone affect and feeling, is difficult and confusing. There are a lot of misconceptions, and the definitions have been contradictory and inconsistent. Misunderstandings are likely due to translations and differences in linguistic development. In the German-speaking area, for instance, Affekt is used to describe emotions that are experienced with a high intensity (Meyer, Reisenzein, & Schützwohl, 2001, p. 39), whereas the English word affect is either used synonymously for emotion, or as an umbrella term for emotion and related emotional states (Otto, Euler, & Mandl, 2000). Feeling usually denotes the subjective experiential quality of an emotion. And mood is generally defined in terms of a nonintentional, global or diffuse affective state, that is described as long lasting but low in intensity (Bagozzi, Gopinath, & Nyer, 1999; Forgas, 1995). In accordance with a working definition by Meyer, Reisenzein, and Schützwohl (2001, p. 24), emotions are temporal, concrete, single incidents of for example, happiness, sorrow, anger, fear, jealousy, pride, surprise, pity, shame, guilt, envy, disappointment, relief, and several other mental states that bear similarity. Emotions are referred to as (1) inner states of individuals, (2) that have a specific quality, intensity, and durability, (3) which is

induced with reference to a specific object, and (4) is related to a characteristic experience, physiological change, or specific behavior.

Present work will refrain from trying to provide a formal definition of these concepts. Affect will be used as an umbrella term for moods and emotions, while latter concepts will be understood as intended by the authors mentioned above.

The phenomenon that an individual's current affectivity can influence others is largely based on the fact that current emotive levels or mood states are visible. Emotions and moods (albeit with a lower intensity) are expressed in various ways (e.g., through facial expressions, vocal features, gesture, or posture) (Hartje & Poeck, 2002; Meyer, Reisenzein, & Schützwohl, 2001).

## **2.3.2.** Emotional Contagion

In general, emotional contagion defines the process of how one person can catch the emotions of another person in a face-to-face interaction, and how this process can have an impact on the on-going interaction (Hennig-Thurau et al., 2006, p. 59). Hatfield, Cacioppo, and Rapson (1994) proposed that *primitive emotional contagion* is defined by two mechanisms:

- In conversation, people tend automatically and continuously to mimic and synchronize their movements with the facial expressions, voices, postures, movements, and instrumental behaviors of others.
- (2) Subjective emotional experiences are affected, moment to moment, by the activation and/or feedback from such mimicry (p. 10f).

Through imitation or *mimicry*, individuals' emotional experience is influenced by their own *physiological feedback*. Moreover, individuals continuously catch each others' emotions, i.e., "converge emotionally" (Hatfield, Cacioppo, & Rapson, 1992, p. 154). Emotional contagion is oblivious to cognitive processes; it is described as subconscious, automatic, and unintentional, in short, a primitive behavioral reflex (Hatfield, Cacioppo, & Rapson, 1994, p. 5). Accordingly, Barsade (2002) states that:

Once people engage in the mimicking behavior, they then experience the emotion itself through the physiological feedback from their muscular, visceral, and glandular responses. One can ultimately become aware of feeling this emotion, but the initial processes that lead to it are subconscious and automatic (p. 648).

The physiological feedback mentioned above, is either influenced by the central nervous system, afferent feedback based on facial, postural, or verbal synchrony, or due to processes of self-perception, "wherein individuals draw inferences about their own emotional state based on the emotional expressions and behaviors evoked in them by the emotional state of another" (Hatfield, Cacioppo, & Rapson, 1992, p. 155).

Hatfield, Cacioppo, and Rapson's propositions have been empirically validated. With respect to proposition 1, involuntary, spontaneous mimicry of facial displays, vocals, or body movements. The fact that individuals tend to mimic the facial expressions of others can be observed in mother-infant-relationships, and has been examined by Vaughan and Lanzetta (1980). Furthermore, evidence was given for vocal synchrony (i.e., speech behavior by Matarazzo et al., 1963), and movement coordination (Kendon, 1970, and "body sway" by O'Toole & Dubin, 1968).

In addition, there have been studies that validate proposition 2, the assumed relation between emotions and physiological feedback. Strack, Martin, and Stepper (1988) delivered proof for the relation between facial expressions and emotions, in short, the *facial feedback-hypothesis*. In their study, subjects supposedly had to evaluate the funniness of cartoons while holding a pen in their non-dominant hand (control), holding the pen tightly with their lips (lips condition), or holding the pen with their front teeth (teeth condition). "It was emphasized that they should hold the pen gently, without touching it with their lips" (ibid., p. 771). The "teeth condition" mimics the muscle contraction when smiling, while the "lips condition" inhibits such muscle activity. Results clearly show that subjects rated the funniness of cartoons much lower in the lips condition which simulates a frown, compared to higher ratings in the teeth condition which simulates smiling. The ratings in the control condition, i.e., holding the pen in the non-dominant hand, lie in between.

Moreover, there is evidence for the *postural feedback-hypothesis*, the relation between posture and emotions. Stepper and Strack (1993) asked their subjects to solve assignments (i.e., an achievement test) in different postural positions specified by the researchers. The upright-posture condition meant sitting upright in a standard chair in front of a standard table throughout the process of problem-solving. In the slumped-posture condition, "subjects had to perform the tasks sitting on a standard chair in front of a table" (ibid., p. 213), that had a surface lower than the seat of the chair. After finishing the achievement test, all subjects received fictitious feedback on their

exceptional performance. Subjects were then asked to fill out a questionnaire to measure the dependent variables (e.g., feelings of pride). The results showed that subjects which received positive feedback in an upright position felt prouder in comparison to subjects who received positive feedback in a slumped position, yielding support for the relation between posture and emotions. Mehrabian (1968), and Mehrabian and Friar (1969) also validated the assumptions of the postural feedback-hypothesis with their studies. "The findings from all three of the decoding experiments suggest that greater relaxation, a forward lean of trunk towards one's addressee, and a smaller distance to the addressee communicate a more positive attitude to the addressee than a backward lean of posture and a larger distance" (Mehrabian, 1968, p. 307). The follow-up study of Mehrabian and Friar (1969) deals with aspects of posture (positioning and orientation), and its influences on the resulting emotional experience.

Additionally, there are studies that examined the impact of verbalization on emotive states, the vocal feedback-hypothesis. In Hatfield et al.'s study, participants were asked to read written scenarios of happy, loving, sad, or angry interactions in a congruent affective tone of voice. Right after, they were asked to rate their happiness on a scale. "Subjects who read scripts depicting joy and love secured positive scores on the happiness index. Subjects who read scripts depicting sadness and anger secured negative scores" (1995, p. 301). In a second experiment, the authors replicated their results. Subjects first had to listen to audio material, and then try to reproduce the voice quality, rhythm, intonation, and pausing associated with the written scenarios they had heard. Hatfield et al. (1995) found evidence that participants subsequent emotional experience was affected by their own vocal feedback. In another experiment by Neumann and Strack (2000), subjects had to listen to a philosophical text which was either read in a happy, neutral, or sad voice. Right after, participants were asked to rate their current mood state. Interestingly, the researchers found evidence that subjects mood level had been impacted by the affectivity with which the text had been recited. Those who had listened to the happy voice rated their mood significantly higher, compared to those subjects who had heard the sad voice. In their second experiment, subjects had to read the same text they had listened to before while they were taped. A different sample of subjects were then asked to judge the emotions of the participants from the first part of the study. "The expressed emotion of the repeated speech was influenced by the emotional expression of the original recitation. Participants judging the emotion of the speakers on the tape rated those who had originally listened to the happy target person as happier and less sad than those who had originally listened to and repeated the speech of the sad target person" (Neumann & Strack, 2000, p. 216).

Primitive emotional contagion's right to exist traces back to an individual's limited information processing capacities. According to Hatfield, Cacioppo, and Rapson (1992), emotional contagion facilitates the (subconscious) processing of emotional information. Stel and van Knippenberg (2008) provide evidence for this phenomenon. "Emotions may be perceived via two routes. The longer (slower) route involves matching visual input with stored knowledge about emotions. The shorter (faster) route involves empathic emotions that serve as proprioceptive cues in emotion recognition" (p. 984). The researchers propose that individuals recognize emotions much faster, if it is possible for them to mimic a facial expression which promotes the faster route. If mimicry is inhibited, emotion recognition is slower. Thus, Stel and van Knippenberg (2008) hypothesized that subjects will recognize brief presentations of facial emotional displays much slower, if they are physically restrained to synchronize the display compared to when they are physically able to synchronize their expression. In their experiment, the proposed effect only occurred when the subjects were female. "Women, but not men, were slower to recognize the affective valence of briefly displayed facial expressions when constrained from mimicking them, an effect we attribute to the fact that facial constraints hinder women's capacity to empathize" (Stel & van Knippenberg, 2008, p. 985).

Even though Stel and van Knippenberg (2008) proved that mimicry helps with emotion recognition, they failed to report one big gap concerning the authenticity of emotions. The findings of a more recent study by Stel, van Dijk, and Olivier (2009) "demonstrated that non-mimickers were more accurate than mimickers in their estimations of targets' truthfulness and of targets' experienced emotions. (...) In the case of deceptive messages, mimicry hinders this emotional understanding" (ibid., p. 693). Hence, it is not the felt emotion that can be recognized but the expressed emotion of another person.

## Interindividual differences

Some individuals are more susceptible to the contagion of emotion (*receiver of emotion*), whereas others are more likely to be influential by ways of emotional displays (*sender of emotion*). With respect to susceptibility, Hatfield, Cacioppo, and Rapson (1992) mention several features that make individuals more or less likely to catch others' emotions:

(a) People should be more likely to catch others' emotions if their attention is riveted on the others than if they are oblivious to others' emotions. (b) People should be more likely to catch others' emotions if they construe themselves in terms of their interrelatedness to the others than if they construe themselves in terms of their independence and uniqueness. (c) Those able to read others' emotional expressions, voices, gestures, and postures should be especially vulnerable to contagion. (d) Those who tend to mimic facial, vocal, and postural expressions should be especially vulnerable to contagion. (e) Those who are aware of their own emotional responses should be more vulnerable to contagion. (f) Emotionally reactive people should be more vulnerable to contagion (p. 169f).

To summarize, the authors propose that those individuals who pay attention to others or feel responsible for others are more susceptible to emotional contagion. They also propose that social roles might require a heightened attention (e.g., nurses), and that characteristics such as empathy promote a vulnerability in taking over other people's emotive states.

With respect to the sender of emotion, they refer to the concept of emotional expressivity (Gross & John, 1998). Emotionally expressive individuals are more able to communicate their moods and emotions verbally and non-verbally, and are therefore more likely to shape the affective state of other individuals or groups (cf., Hareli & Rafaeli, 2008; Sy, Côté, & Saavedra, 2005; Barsade, 2002; etc.).

## **Theory evaluation**

The theory of primitive emotional contagion is consistent and comprehensible. The basic underlying assumption, the visibility of an individual's affective state, is given, and the propositions by Hatfield, Cacioppo, and Rapson (1992, 1993, 1994) have been examined and verified empirically.

After an extensive literature review it must be noted, that explicit criticism is almost non-existent. There is no doubt that Hatfield, Cacioppo, and Rapson refer to emotions in their theory. Still, Schmidt-Atzert (1996) criticizes that emotions cannot be induced through this process but agrees that current mood states can be changed. In accordance with this perspective, it has been noticed that emotional contagion is in fact more likely when two people share a similar affective state (Barsade, 2000; cit. in Kelly & Barsade, 2001, p. 107). Neumann (2006) proposes that emotional contagion or rather mood contagion, as endorsed by Neumann and Strack (2000), induces moods, whereas the adoption of another individual's perspective leads to an emotion (i.e., empathy).

Neumann's idea is comprehensible but questions the very assumptions that the theory of contagion is built upon. Primitive emotional contagion is defined as the result of an automatic, involuntary, and subconscious process. As such, Hatfield, Cacioppo, and Rapson emphasize the non-existence of consciousness (or cognitions) during the transference. Considering another person's perspective would imply conscious interpretations, and thus, a voluntary adoption of another person's mood or emotion, not labeled primitive.

There has been quite a quarrel over the etiology of emotions, as to whether emotions arise in the absence of cognitions, or if cognitions are a constitutive element of emotions<sup>4</sup>. Nonetheless, thanks to the pioneer work of Hatfield et al., the phenomenon has found wide acceptance. Primitive emotional contagion is widely used as a valid explanation of how moods and emotions of individuals can be caught by others. E.g., concerning the multiple influences of leadership (Brundin, Patzelt, & Shepherd, 2008; Bono & Ilies, 2006), collective emotions in work groups (Sy, Côté, & Saavedra, 2005; Barsade, 2002), interactions at the POS that are charged with emotions (Bougie, Pieters, & Zeelenberg, 2003; Menon & Dubé, 2000), or the impairment of satisfaction and quality of life of caregivers (Perren et al., 2005).

Primitive emotional contagion is one possible explanation for the mood or emotional convergence of people. As discussed before, the process is described as automatic, subconscious, and involuntary. As proposed by Neumann (2006), people also tend to consciously and voluntarily put themselves in another person's position, and try to imagine what the other person feels. Empathy, social influence, or comparison processes are possible explanations.

<sup>&</sup>lt;sup>4</sup> For further interest in different emotion theories (e.g., genesis of emotions) please refer to Birbaumer and Schmidt (1996), Otto, Euler, and Mandl (2000), Pauli and Birbaumer (2000), Meyer, Reisenzein, and Schützwohl (2001), and Reisenzein, Meyer, and Schützwohl (2003).

#### 2.3.3. Comparison Processes

In Festinger's *social comparison theory* (1954), individuals are assumed to have "a basic need to have accurate appraisals of their opinions and abilities and that lacking an objective standard for a reference, individuals will evaluate their opinions and abilities in comparison with other people" (Gump & Kulik, 1997, p. 305). Individuals are more likely to use social comparison in situations perceived as ambiguous. In the company of others, people compare their own behavior to the behavior of others, and evaluate its adequacy. The same applies to ambivalent situations in which people compare their current moods and emotions to the affective state of others in order to rate its appropriateness (Buunk, 1996). The emotional (and behavioral) reactions of others provide valuable information as to how one should feel about something, and help with the interpretation of one's own reactions (Zimbardo & Formica, 1963; Barsade, 2002). Thus, people tend to adopt the mood states or emotive levels of others to avoid behaving inappropriately, to avoid exclusion, and/or to feel closer to others (Buunk, 1996).

Festinger also postulated a connection to an individual's *need for affiliation*, and postulated that individuals use others that bear a certain similarity to the focal individual for comparison purposes (i.e., the *similarity hypothesis*). Schachter (1959; cit. in Gump & Kulik, 1997, p. 305) extended Festinger's assumptions and proposed an *emotional similarity hypothesis*, whereby individuals compare their emotional state with others in an equal or similar situation, especially with respect to uncertainty and possible threats (cf., Kulik, Mahler, & Earnest, 1994; Kulik, Mahler, & Moore, 1996).

So, emotional comparison processes which result in a conscious adaption of another person's affective state are more likely, when people sympathize with others, when they share similar characteristics or goals, and/or when there is an emotional commitment between them (Tsai & Huang, 2002). Epstude and Mussweiler (2009) provide evidence for the fact that perceived similarities between individuals, an ingroup phenomenon, lead to emotional convergence, whereas dissimilarities, an outgroup phenomenon, lead to discordant affective states, referred to as *countercontagion* by Hatfield, Cacioppo, and Rapson (1994).

An important differentiation to primitive emotional contagion lies in the higher cognitive and emotional effort of conscious emotional convergence. Further, while primitive emotional contagion solely relies on the visibility of an individual's affective state, emotional comparison processes afford a correct interpretation. Ekman and colleagues have provided extensive evidence that individuals have the ability to successfully interpret the emotional displays of others, independent from cultural backgrounds (cf., Ekman, 2007; Ekman et al., 1987; Ekman & Oster, 1979; Ekman & Friesen, 1971).

Other possible explanations for the conscious adoption of another person's affective state are modeling, social influence, empathy, or reciprocity. Within Bandura's social learning theory, new and more complex behaviors are learned through observation of these behaviors and learning about their consequences (Stroebe, Hewstone, & Stephenson, 1996). Individuals can either learn by observation alone or imitate the behavior of their models (e.g., a child observing and imitating the behavior of its mother). Thus, by ways of modeling, individuals learn about emotional behaviors and consequences thereof.

Social influence refers to the change in judgments, opinions, and attitudes of an individual as the result of a confrontation with the judgments, opinions, and attitudes of others (de Montmollin, 1977; cit. in von Avermaet, 1996, p. 504). Similarly, emotional or mood convergence is the result of a confrontation with another person's affective state, or even collective emotions on group level.

Empathy describes a person's "vicarious affective response" to, for instance, social events or the perception of the affective state of another person (Feshbach & Roe, 1968, p. 133). Empathy can be the result of identification or imitation, and is linked to similarities between a focal individual and another person (ibid., p. 143).

Findings with respect to reciprocity have been ambiguous. Tel cites Argyle and Dean (1965) who state that according to equilibrium theory, there exists "a pressure between interacting individuals to maintain a comfortable level of interpersonal intimacy" (cit. in Tel, 1989, p. 711). However, Tel found no evidence for reciprocal behavior of one person in relation to the behavior of another. Still, based on an essay by Gouldner (1960), Tsai states that "when employees display positive emotions to customers, it creates almost a dept that the customers can repay with their purchase decisions" (cit. in Tsai, 2001, p. 501).

## **Theory evaluation**

Festinger's *social comparison*-theory is consistent and comprehensible. The theory extension by Schachter has been examined empirically (cf., Epstude & Mussweiler, 2009; Berkowitz, Schrager, & Dunand, 2006; Gump & Kulik, 1997; Kulik, Mahler, & Earnest, 1994; Kulik, Mahler, & Moore, 1996; Miller & Zimbardo, 1966; Zimbardo & Formica, 1963).

Interestingly, after an extensive search in diverse online databases<sup>5</sup>, no studies were found that have used the emotional comparison-theory explicitly in the context of interactions within service organizations or service encounters with one exception. Hennig-Thurau et al. (2006) propose that, compared to primitive, automatic emotional contagion which can be solely influenced by displayed emotions (e.g., the extent of smiling), emotional comparison, as a conscious appraisal of another person's moods and emotions, is likely to be dependent on the genuineness of emotional expressions (e.g., the authenticity of a smile). "When the receiver perceives the sender's emotional display as fake or disingenuous, he or she will not interpret the emotional display as adequate for reducing perceived ambiguity", and so, emotional comparison is less likely to occur (Hennig-Thurau et al., 2006, p. 59).

In summary, there is a lot of evidence that conscious and subconscious emotional convergence is possible between two or more people. Depending on the specifics of the setting, either explanation seems more likely. With respect to the relationship between leaders and followers, where status and authority matter, where the need for affiliation might be a factor, where organizational goals and perceptions are shared, where people meet in daily interactions, emotional comparison, modeling, or social influence is likely to occur. In contrast, it seems highly likely, that primitive emotional contagion occurs in distinct encounters between strangers, where service workers express positive emotions through smiles, increased eye-contact and amiable intonation, to meet the expectations of customers, and to make them converge emotionally.

<sup>&</sup>lt;sup>5</sup> i.e., Business Source Premier, EconLit, PsycARTICLES, PsycINFO, Psychology and Behavioral Sciences Collection, and SocINDEX

## 2.3.4. The Effects of Mood and Emotion

The reason why mood or emotional transfer, or why interactions and relationships within an emotional climate are so important, is obvious: affects have an essential influence on an individual. Therefore, the following chapter presents a brief review of the prominent impacts of mood and emotion.

## Mood and emotion influence perception and attention

Öhman, Flykt, and Esteves (2001) examined the influence of emotionally relevant stimuli on perception and attention. Subjects were asked to look at pictures of objects (arranged as matrices), and were asked to evaluate, whether the depicted objects belonged to the same category, or if there was an object that belonged to a different category. The categories were either potentially fear-inducing photos of snakes or spiders, or neutral photos of flowers or mushrooms. Because of the evolutionary relevance of the fear-inducing animals, the authors hypothesized, that subjects would detect those stimuli within neutral picture matrices much faster, than neutral pictures within photos of snakes or spiders. And they were right. In addition, the effect size was even larger for individuals who had previously declared to be phobic or afraid of spiders or snakes. "Fearful participants were faster to find a fear-relevant target that they did not fear than fear-irrelevant targets, but they were even faster to find a feared fear-relevant stimulus" (Öhman, Flykt, & Esteves, 2001, p. 473). The authors explain these enhanced perception and attention processes with Seligman's preparedness theory (1971), whereby evolutionary relevant stimuli existed that had to be detected instantly to ensure the survival of a human life in the past. These stimuli are likely to attract attention in the present too (Öhman, Flykt, & Esteves, 2001).

Further, studies on depression have showed that affective states drive perception and attention. A negative affective state and specific negative emotions such as sadness or anxiety, lead to a higher self-focus, or focus on negative information (cf.; Wood et al., 1990; Sedikides, 1992). Forgas and Bower (1987) note that participants in a good mood spend more time reading positive as opposed to negative texts, whereas participants in a bad or even depressive mood spend more time reading negative compared to positive information. The researchers conclude that individuals are more likely to process and attend to mood-congruent information.

*Implications*: Above findings imply that emotion-inducing or emotionally relevant information is perceived much faster, and receives more attention. Correspondingly,

we may assume that a customer's attention will be riveted on the service person, that is, on his or her display of emotions in a service interaction, and therefore, emotional contagion becomes more likely, while the customer is oblivious to other aspects of the servicescape.

The enhanced focus on mood-consistent information is also important. For instance, when considering that a positive emotional climate which elicits positive affects in an employee, will lead to more positive appraisals of a given work environment, and subsequent positive outcomes. In contrast, a negative emotional climate will increase an employee's focus on negative information within the work environment, which is more likely to lead to negative appraisals and the search for possible causes.

## Mood and emotion influence memory

Christianson et al. (1991) and Öhman, Flykt, and Esteves (2001) showed that the central emotion-provoking content of a situation (e.g., an accident) is perceived much faster and receives more attention. Christianson et al. also discovered that subjects had an enhanced memory for those stimuli. Several authors propose that this has less to do with the emotional relevance or affect-inducing potential of a stimulus, but rather with its valence, and as such, with its relation to an individual's current affective state.

Isen et al. (1978) propose that moods (and emotions) serve as memory triggers. The researchers were able to find a significant interaction effect between words and mood at the time of recall, albeit with a positivity bias. Subjects in a good mood were able to retrieve more positive as opposed to negative information from memory (ibid., p. 2). The effect could not be replicated for individuals in a bad mood and negative words. Nevertheless, Isen et al. (1978) see this as evidence for their *accessibility hypothesis*, by which mood is perceived as a *cue* that facilitates access to contents in one's memory which are of similar or same valence. They propose that "a person who is in a good mood may tend to be in a cognitive 'loop' that is characterized by accessibility of positive thoughts, memories, and associations" (Isen et al., 1978, p. 2).

Further, Bower and Cohen (1982) provided evidence for the encoding of information. "The affective state at the time of learning is associated with superior memory for similar valenced material" (Bagozzi, Gopinath, & Nyer, 1999, p. 196). The authors propose that mood-congruent material is processed more elaborate at the time of encoding which helps with retrieval of information. *Implications*: Thus, in addition to an increased perception and attention for moodcongruent information, individuals have an enhanced memory for material that is consistent with one's current affective state. Therefore, it seems obvious, that leaders should promote a positive emotional climate for their followers, whereas service workers should promote a positive emotional climate for customers, because resulting positive appraisals and experiences will be recalled more easily, and more frequently.

For example, a customer is more likely to recall positive aspects of a service interaction after having a pleasant sales talk with a smiling service person that induced positive emotions. Isen et al. propose a halo effect that signalizes a focus on positive things. They postulate that "within limits, persons in a good mood will tend to think about positive events or cognitions and that their thoughts, feelings, or estimates about these cognitions will tend to be more positive than they might be at another time. (...) Certain behavior will become more likely when one is feeling good, and it, in turn, will affect the person's mood state and cognitive processes" (Isen et al., 1978, p. 8).

In contrast, when imagining negative emotional displays by a manager (e.g., worry, frustration), it seems likely that those might elicit a negative emotional climate for followers, which will result in lower job satisfaction, lower quality of work life, or a lower willingness to act entrepreneurially (cf., Brundin, Patzelt, & Shepherd, 2008).

## Mood and emotion influence information processing

Individuals have a limited capacity to consciously process new information due to constraints of the working memory. Affect plays an important role in reducing the complexity of information (Scherer, 1996).

Taber, Lodge, and Glathar (2001) propose that any given bit of information has an affective tag, known as *hot cognition* (cf., Lodge & Taber, 2000). "The hot-cognition hypothesis posits that all sociopolitical concepts a person has evaluated in the past become affectively charged - positively or negatively, strongly or weakly" (Morris et al., 2003, p. 727). These so-called affective tags are attached to the concepts in one's long-term memory, and will systematically and continuously be updated with new information. Furthermore, these tags help with faster information processing, and consequently, quicker judgments.

Research on information processing has been especially prominent in the field of politics with respect to persuasion. Theories on information processing, or persuasion, are usually based on one or two-process models. Erb and Kruglanski (2005) proposed

a unimodel which "treats message arguments and heuristic/peripheral cues as functionally equivalent" (p. 117). Hence, an individual does not differentiate between specific types of information, rather, he or she uses information as "evidence" to come to a conclusion. Two-process models, such as the *elaboration-likelihood-model* (ELM; cf., Cacioppo & Petty, 1984), or the heuristic-systematic-model (HSM; cf., Chaiken, 1982), are more popular and view the two processes as quite distinct from each other. The ELM proposes a central and a peripheral route of information processing based on a continuum of elaboration likelihood (Cacioppo & Petty, 1984). The central route of information processing signifies a high elaboration likelihood, i.e., new information or reasoning will be weighed in comparison to other relevant arguments, and an individual will base upcoming decisions on past experiences and knowledge. This elaboration process demands a high cognitive effort. In contrast, when an individual's motivation to process new information is low, when there is a lack of cognitive capacities, and the overall involvement is low, elaboration is less likely. An individual will process information on the peripheral route, and will most probably use simple heuristics for judgments. The ELM is very similar to the heuristic-systematic-model (HSM). The central route is equivalent to systematic processing, and the peripheral route corresponds to the heuristics-route (Cacioppo & Petty, 1984).

Thus, in combination with affect, "prior research has shown that individuals who are in a positive emotional state process less information and tend to use top-down processing strategies, simple heuristics, and holistic judgments with little attention to detail or logical consistency" (Smith & Bolton, 2002, p. 8). In essence, individuals in a good mood tend to act on instinct, spend less time on information processing, pay less attention to detail, try to avoid cognitive effort by using heuristics, and consequently, make global judgments (cf., Schwarz & Clore, 2003; Smith & Bolton, 2002; Mackie, Asuncion, & Rosselli, 1992; Forgas & Bower, 1987).

Negative affect reduces this halo. Schwarz and Clore (2003) showed that subjects in a sad mood focused on negative information and elaborated on it. They conclude that negative affect may promote systematic information processing, whereby individuals pay much attention to details, analyze pieces of information in-depth, and spend more time on processing (cf., Smith & Bolton, 2002; Bagozzi, Gopinath, & Nyer, 1999; Forgas & Bower, 1987).

*Implications*: Above findings show that one should not disregard the role that affect plays in the processing of information. Thus, inducing positive emotions in employees

and customers may provoke a positive halo, whereupon negative aspects of the work environment, or the service encounter, are outshined, overlooked, or depreciated.

However, one needs to be cautious when negative affect is induced, because employees and customers tend to focus on mood-congruent material, tend to update past knowledge with affective tags, and tend to search for the causes of their bad mood which may cloud their judgment.

### Mood and emotion influence judgments

As mentioned before, Isen et al. (1978) assume that a good mood leads to a positive overall view on things (i.e., positive halo). In accordance with their proposition, they were able to show that products and services were evaluated more positively by individuals in a good mood, compared to individuals in a neutral or bad mood. Further, Forgas and Bower (1987) replicated their findings by proving that happy participants were more in favor of others, in contrast to sad participants.

Isen et al. (1978) postulate that mood-congruency enhances the accessibility of information, and as such, makes influences on cognitive processes and behavior more likely. The affect infusion model by Forgas (1995) conceptualizes this approach: "Affect infusion may be defined as the process whereby affectively loaded information exerts an influence on and becomes incorporated into the judgmental process, entering into the judge's deliberations and eventually coloring the judgmental outcome" (p. 39). Thus, individuals often use their current mood state or emotive level as valid information when making global judgments. Forgas (1995) proposes two mechanisms by which affect may be influential: affect-priming, and affect-as-information. "According to the affective-priming-principle, affect may indirectly influence judgments during substantive processing through its selective influence on attention, encoding, retrieval, and associative processes" (Forgas, 1995, p. 40). These processes have been described above. The second mechanism, affect-as-information, has been examined in depth by Schwarz and Clore (cf., mood-as-information, 1983 and 2003). Their approach is based on the assumption that the influence of moods is a result of misattributions. The authors showed that individuals rate their life satisfaction higher when asked on sunny days, and lower when asked on rainy days (Schwarz & Clore, 1983). When asked to evaluate a specific object, individuals pose implicit questions regarding their feelings about it. As a consequence, people in a foul mood caused by bad weather, tend to judge objects more negatively, in contrast to people in an elated

mood caused by sunny weather, who tend to judge more benign. The authors conclude that individuals tend to attribute their current mood state to the object of evaluation, instead of being conscious about the influence of other circumstances, such as weather. However, Schwarz and Clore (2003) observed that these misattributions did not occur when subjects' attention was drawn to the weather, and subconscious mood influences were less likely.

The authors further propose that moods are used as information only when there is a specific context dependency (cf., Schwarz & Clore, 2003). If mood was not context dependent, misattributions would not make much sense. In general though, individuals do not pay much attention to the source of their current affective state. This illuminates an important differentiation between moods and emotions. Emotions are generally defined in relation to a specific object, which makes misattributions less likely (cf., Schwarz & Clore, 2003). However, as individuals are sometimes oblivious to the source of their current affective state, and emotions do not necessarily imply a conscious interpretation (cf., Birbaumer & Schmidt, 1996; Pauli & Birbaumer, 2000), even diffuse emotional experiences are likely to be included in judgmental processes.

*Implications*: An individual's current affective state is often used for judgments, either subconsciously and unintentionally, or voluntary, in cases where the object that needs to be evaluated is affective in nature, when essential information is missing, when information is too challenging, or when there is a lack of time (Clore, Schwarz, & Conway, 1994). Thus, inducing and maintaining positive affect in employees will probably result in higher satisfaction appraisals, or more positive perceptions of work-related quality of life, whereas elated customers will judge service encounters more positively with respect to service quality, and will be more likely to return to the store just to relieve the positive experience.

#### Mood and emotion influence consumer behavior and consumer satisfaction

The pioneering study by Isen et al. (1978) reported higher satisfaction appraisals of consumer goods and services when subjects were in a positive mood state. Their findings were replicated once again by Bambauer-Sachse and Gierl (2009) who also examined the influence of mood and found an interaction effect with regard to product involvement. Positive moods were very influential concerning low involvement-products, where the focal customer's motivation to analyze and evaluate a sales person's arguments was lower. Product ratings were based on superficial cues, such as

speaking with a pleasant service person who smiled a lot and induced a positive affective state in the customer. Interestingly, the researchers advise sales organizations to induce positive moods in their customers even with respect to high involvement-products as they assume a positive impact of affect, albeit less pronounced. Moreover, they examined the influence of mood in combination with argument strength. Bambauer-Sachse and Gierl (2009) argue that a customer's elated mood state promotes the afore mentioned positive halo, and as such, lessens the importance of weak arguments, whereas negative moods lead to a more elaborate processing of the content and quality of arguments.

*Implications*: The authors advocate the importance of positive moods in customers as affect is included in the processing of information, in subsequent judgments, and probably, in behavioral intentions (cf., Bambauer-Sachse & Gierl, 2009). Implicitly, Heskett et al. (1994) promote the idea of treating a company's employees as internal customers, who also have needs and expectations, and may appraise their work environment more favorably when positive moods and emotions are induced, and continuously reinforced.

In summary, positive and negative affect have been found to lead to robust and important influences on cognitive processes and behaviors of an individual. The focal individual in turn, is likely to have an impact on others with whom he or she interacts (cf., Schneider, Parkington, & Buxton, 1980), and shares a short or long lasting emotional relationship (cf., Evans et al., 2009). These interactions create an emotional climate which is atmospherical in nature (cf., Schein, 2000) and includes affectivity of any kind. Moreover, the climate is likely to be shaped by the reactions of others, and is bound to be influenced by a given physical environment (cf., Bitner, 1992).

With respect to the social constructionist perspective, an emotional climate is largely based on choosing a focus of interest (cf., Burke, Borucki, & Kaufman, 2002). Accordingly, Chapter 3 deals with the influence of leader behaviors on follower outcomes in service organizations. A review and discussion of the impact of service worker behavior on customer perceptions, will be the content of Chapter 4.

# **3.** Emotional Climate in a Service Company

The linkage research model proposes that leadership practices have an influence on employee outcomes including employee satisfaction (Figure 2), whereas the service profit-chain proposes causal links leading from employee satisfaction to employee loyalty (Figure 1). Inlight of this, it seems important to understand the relationship between leaders and followers, as effective leaders have the ability to exert a positive impact on employees' affects, appraisals, and behavior.

The Chapter will start by providing a review of the central concepts, before presenting the hypothesized relationships and a conceptual model. Next, we will have a look at the methodological approach, results, and discussion.

## 3.1. Empowerment

There has been a change of paradigm, where work is considered as a necessity, where a task does not have a sense in itself, where employees have to be instructed in detail, and only work under pressure and control. Thomas and Velthouse (1990) confirm that more emphasis is now put on the purpose of a specific task and that workers can be committed to the *task itself*. Hence, Thomas and Velthouse refer to empowerment as intrinsic task motivation. Essentially, individuals can derive pleasure and arousal from activities and related experiences, that is, the task or the behavior itself is appraised as an incentive (Rheinberg, 2000). Thus, these experiences elicit satisfaction and increase the motivation to do a task and devote one's time and energy. Thomas and Velthouse (1990) propose a model of empowerment, or rather intrinsic task motivation, within which task assessments are defined as a set of subjective (intrapersonal) cognitions related to a specific task. In essence, these cognitions are constructions of reality with respect to impact, competence, meaningfulness, and choice. Impact denotes an individual's expectations regarding changes as a result of behavior ("making a difference"). Competence corresponds to the skills an individual believes to possess to do a specific task or attain a goal, also known as self-efficacy (Bandura, 1977). Meaningfulness denotes the meaning, purpose, or value an individual assigns to a specific task, or to the attainment of its goal in relation to one's own ideals. Choice on the other hand, describes the acceptance of responsibility for one's (causal) behavior, also known as self-determination (Conger & Kanungo, 1988a; Thomas & Velthouse, 1990; Spreitzer, 1995). The subjective cognitions are mutually influential, and are shaped by environmental factors that provide information "about the consequences of ongoing task behavior and about conditions and events relevant to future behavior" (Thomas & Velthouse, 1990, p. 670). Thomas and Velthouse explain that individual differences in task assessments are further due to other intrapersonal variables such as interpretive styles (process of adding information with respect to attribution, evaluation, and envisioning), and global assessments (generalized beliefs about impact, competence, meaningfulness, and choice).

Empowerment cannot be understood as an enduring personality characteristic, but rather as the result of a specific work environment that is subject to change. In addition, empowerment is a continuous variable, individuals can either feel more or less empowered (Spreitzer, 1995). The feeling of empowerment, or the amount of intrinsic task motivation, has several environmental antecedents. Spreitzer successfully showed that self-esteem and access to information precede the feeling of psychological empowerment. Individuals high in self-esteem generally project this feeling into their work environment. They believe in their capability, and are more likely to engage at work, i.e., feel that they possess what it takes to do the job. Moreover, an individual needs to have access to information about where the firm is headed, what goals are being targeted, where one's contribution is located, and so forth, in order to assign a purpose to a task (Spreitzer, 1995, p. 1446ff). Thomas and Velthouse (1990) for instance, name job design and delegation as necessary frames for individuals to feel empowered. If the job design does not call for personal initiative, or if an individual is not delegated to do a specific task, and has no freedom of action, the individual is less likely to feel a high degree of empowerment. For an individual to feel empowered, they need the *authority* (freedom of action) to do their work, and they need to have the *capacity* (knowledge, skills, and competences) as well as the *energy* (motivation) to do so (Thomas & Velthouse, 1990; Bieger, 2007).

Managerial effectiveness, "defined as the degree to which a manager fulfills or exceeds work role expectations", and innovation, generally defined as "the creation of something new or different", are proposed as consequences of empowerment by Spreitzer (1995, p. 1448f). Empowered managers are likely to perceive themselves as self-determinant and believe they possess the necessary skills that enable them to have an impact on their work environment, and as such they are likely to fulfill their job requirements proactively and effectively. Spreitzer also showed that empowerment is linked to innovative behaviors, "because empowered individuals believe they are autonomous and have an impact, they are likely to be creative; they feel less

constrained than others by technical or rule-bound aspects of work" (Amabile, 1988; cit. in Spreitzer, 1995, p. 1449).

Empowerment has been examined in a wide variety of research contexts concerning its influence on leadership style (Martin & Bush, 2006), general job satisfaction and affective commitment to an organization (Barroso Castro et al., 2008; Butts et al., 2009), job performance (Martin & Bush, 2006; Butts et al., 2009), job stress (Butts et al., 2009), creative performance (Wei, Yuan, & Di, 2010), and customer-orientation (Martin & Bush, 2006).

## 3.2. Leadership

Leadership is typically described as transactional or transformational. Transactional *leadership* is based on transactions as the name implies, and involves "economic exchange to meet subordinates' current material and psychic needs in return for 'contracted' services rendered by the subordinate" (Bass, 1985, p. 14). Bass and Riggio (2006) extend this understanding and elaborate on transactional leadership as being dependent on conditioning through either positive contingent reward (CR) or management-by-exception (MBE). "Contingent reward leadership involves the leader assigning or obtaining follower agreement on what needs to be done with promised or actual rewards offered in exchange for satisfactorily carrying out the assignment" (Bass & Riggio, 2006, p. 8). This entails Bass' perspective stated above. The authors further describe management-by-exception as either active or passive: "In active MBE, the leader arranges to actively monitor deviances from standards, mistakes, and errors in the follower's assignments and to take corrective action as necessary", whereas passive MBE "implies waiting passively for deviances, mistakes, and errors to occur and then taking corrective action" (ibid., p. 8). Transactional leadership is generally perceived as outdated nowadays (Podsakoff et al., 1990, p. 113), but seemed to make sense under another kind of paradigm, where the working man needed guidance, orders, and reacted only under pressure (cf., division of labor in Taylorism; de Montmollin, 1975).

The approaches and conceptualizations with respect to *transformational leadership* have differed over the years, and so have the measures, but they combine important assumptions about transformational or charismatic leadership: "At the heart of the model is the notion that transformational leaders motivate their followers to commit to and to realize performance outcomes that exceed their expectations" (Conger, 1999,

p. 151). Transformational leaders are perceived as charismatic and influential due to their drive. They are regarded as intellectually stimulating, and inspiring to followers by informally pushing them to achieve goals beyond own expectations (Bass & Riggio, 2006; Podsakoff et al., 1990). Moreover, transformational leaders appeal to employees' emotional needs and lead by eliciting emotions in their followers, and by creating an emotional attachment (Bass, 1985; Conger & Kanungo, 1988a; Bono & Ilies, 2006). This attachment, also referred to as affective commitment, is likely to lead to an increase in performance of individuals and groups (Meyer et al., 1989), and to a better performance of the firm as a whole (Conger & Kanungo, 1988a). Emotions are essentially used as a communication tool (McColl-Kennedy & Anderson, 2002). Podsakoff et al.'s (1990) conceptualization is quite comprehensive. Transformational leadership is regarded as a higher-order construct consisting of 6 key behaviors (ibid., p. 112): (1) A leader identifies new opportunities and articulates visions that inspire his or her followers. (2) A leader should provide an appropriate model for the employees to follow, in accordance with one's own values and the values of the firm. (3) A leader fosters the acceptance of group goals. As such, a leader promotes cohesion and cooperation among team members. (4) A leader should have high expectations, whereby quality and performance are measured. (5) A leader provides *individualized support*, he or she cares for the employees, and respects employees' feelings and needs. (6) A leader provides intellectual stimulation. He or she challenges employees, promotes independent thinking, and is critical of the status quo. The first three key behaviors can be described as "core" transformational behaviors<sup>6</sup> (cf., Podsakoff et al., 1990).

McColl-Kennedy and Anderson (2002) believe that "the style of the leader is considered to be particularly important in achieving organizational goals, with research consistently demonstrating the benefits of transformational leadership style over the more traditional forms, such as transactional leadership style" (p. 546). There is a growing body of evidence undermining the assumption that transformational leadership is closely linked to positive outcomes such as satisfaction, motivation, and performance (cf., Bass & Riggio, 2006; McColl-Kennedy & Anderson, 2002; Podsakoff et al., 1990; Conger & Kanungo, 1988a; etc.). However, Bass and Riggio (2006) mention that contingent rewards (e.g., a bonus) have been linked to better performance levels in employees, and interestingly, find the need to state quite

<sup>&</sup>lt;sup>6</sup> For more information on transformational or charismatic leadership, readers may consult Bass (1985), Bass and Riggio (2006), Conger (1999), Conger and Kanungo (1988a, 1988b), and Dasborough and Ashkanasy (2002).

explicitly that "there is nothing wrong with transactional leadership" (ibid., p. 10), but continue to emphasize the more valued contribution of transformational or charismatic leadership. This clearly represents a bias in favor of transformational leadership. Still, transactional leadership has been linked to improvements of organizational citizenship behaviors such as sportsmanship or altruism (cf., Podsakoff et al., 1990).

Overall, leadership has been examined in a wide variety of research contexts such as its influence on mood (Bono & Ilies, 2006), employee satisfaction (Bass & Riggio, 2006; Podsakoff et al., 1990), trust (Bass & Riggio, 2006; Podsakoff et al., 1990), commitment (Bass & Riggio, 2006; Zohar, 2002), organizational citizenship behaviors (Podsakoff et al., 1990), customer-oriented selling (Martin & Bush, 2006), service climate (Schneider et al., 2005), and creative performance (Wei, Yuan, & Di, 2010).

## **3.3.** Positive emotional climate-practices

We have already established that employees form emotional attachments with others in their work environment. Ozcelik et al. (2008) introduce a new concept of leader behaviors. These so-called *positive emotional climate (PEC)-practices* of leaders correspond to a work environment, where leaders take employees' emotional needs into account, where employees' feelings, thoughts, and behaviors are actively influenced by specific leader practices (Ozcelik et al., 2008, p. 187).

The management of one's own and followers' emotions has become an integral part of the tasks a leader has to deal with. This topic is usually examined in terms of an individual's emotional intelligence (cf., Mayer & Salovey, 1997; Mayer, Caruso, & Salovey, 1999; George, 2000). Ozcelik et al.'s conceptualization of positive emotional climate (PEC)-practices is a *light version*, compared to the complex concept of emotional intelligence. The researchers define the PEC-practices exclusively in terms of "being sensitive to employees' emotional needs, encouraging employees by giving positive feedback, and taking initiatives to create a teamwork environment and a positive emotional climate between workers" (Ozcelik et al., 2008, p. 188).

Ozcelik et al. (2008) continue to elaborate on the fact that their PEC-practices differ from the established concepts of transformational and transactional leadership. They cite Yukl (1989), and refer to transformational leader behaviors as manipulative in the sense that leaders "use their power to influence or change the attitudes and values of their employees in the direction of organizational goals" (cit. in Ozcelik et al., 2008, p. 189). Their positive emotional climate-practices respect individual development and foster an emotional attachment to the work environment.

In essence though, these leader practices are a combination of transformational and transactional leader behaviors with an enhanced focus on employees' emotional needs. As a consequence, it seems likely, that these leader practices will have a distinct positive influence on follower outcomes. "A new leader with a different management style could change the emotional climate of an organization in a relatively short period of time, even though the culture of the organization might remain the same" (Ozcelik et al., 2008, p. 189).

## 3.4. Hypotheses development

*Empowerment, leadership, and PEC-practices.* As described above, psychological empowerment can be defined in terms of intrinsic task motivation and associated task assessments. An individual feels empowered when a specific task has meaning, when he or she possesses the required knowledge and skills to fulfill a task, when the attainment of a goal has an impact, and when he or she has enough freedom of action. I propose that an empowered leader will use transformational or transactional behaviors, and positive emotional climate-practices in order to lead effectively.

- H1a: The greater (lesser) a superior's psychological empowerment, the greater (lesser) his or her use of transformational or transactional leadership.
- H1b: The greater (lesser) a superior's psychological empowerment, the greater (lesser) his or her use of practices that facilitate a positive emotional climate at work.

Moreover, I suspect dependencies among these variables. Ozcelik et al. (2008) pointed out that leaders' positive emotional climate-practices are distinct from other leadership styles. However, when looking at the items, one realizes that the PEC-practices are in fact a merger of items that refer to employees' emotional needs, and items that would be appropriate to measure either transactional or transformational leadership.

H2: There will be a positive relation between superiors' transactional or transformational leadership style and his or her use of practices that facilitate a positive emotional climate at work.

*Transactional or transformational leadership, mood, job satisfaction, quality of work life, affective organizational commitment, and behavioral intentions.* As Bass and Riggio (2006) state, leadership will most definitely have an impact on followers. Leaders have the ability to shape work environments (climates) with their behaviors, and influence employees' feelings, thoughts, and behaviors. If employees feel that their daily work and their work environment do not match up to their expectations, it is likely that they will feel unhappy and be disappointed. Thus, leadership has an impact on employees' mood at work, job satisfaction, and quality of work life. Leaders can promote feelings of commitment in followers by influencing them in terms of their identification with organizational goals and values (Bass & Riggio, 2006, p. 35). And finally, when employees feel appreciated and guided by attentive leaders, they will have less intentions to quit their jobs in the near future. In light of this, I propose:

- H3a: There will be a positive relation between a superiors' transactional or transformational leadership style and subordinates' mood at work.
- H3b: There will be a positive relation between a superiors' transactional or transformational leadership style and subordinates' job satisfaction.
- H3c: There will be a positive relation between a superiors' transactional or transformational leadership style and subordinates' quality of work life.
- H3d: There will be a positive relation between a superiors' transactional or transformational leadership style and subordinates' affective organizational commitment.
- H3e: There will be a negative relation between a superiors' transactional or transformational leadership style and subordinates' behavioral intentions (i.e., intention to quit).

*Positive emotional climate-practices, mood, job satisfaction, quality of work life, affective organizational commitment, and behavioral intentions.* As mentioned, the practices that facilitate a positive emotional climate at work are directed toward employees' emotional needs which should increase their emotional engagement at work (Ozcelik et al., 2008). It can be expected that the use of these practices is likely to lead to the same individual-level outcomes already hypothesized above.

- H4a: There will be a positive relationship between superiors' use of practices that facilitate a positive emotional climate and subordinates' mood at work.
- H4b: There will be a positive relationship between superiors' use of practices that facilitate a positive emotional climate and subordinates' job satisfaction.
- H4c: There will be a positive relationship between superiors' use of practices that facilitate a positive emotional climate and subordinates' quality of work life.
- H4d: There will be a positive relationship between superiors' use of practices that facilitate a positive emotional climate and subordinates' affective organizational commitment.
- H4e: There will be a negative relationship between superiors' use of practices that facilitate a positive emotional climate and subordinates' behavioral intentions (i.e., intention to quit).

*Transactional or transformational leadership, positive emotional climate-practices, and altruism.* Altruism is referred to as "discretionary behaviors that have the effect of helping a specific other person with an *organizationally relevant* task or problem" (Podsakoff et al., 1990, p. 115). Effective leaders have the ability to influence their followers positively by appreciating their work effort, by providing a model, or by considering followers' emotional need. Thus, it seems likely that leaders will provoke pro-social behaviors in their followers.

- H5a: There will be a positive relationship between superiors' transactional or transformational leadership style and subordinates' appraisal of their co-workers' altruism.
- H5b: There will be a positive relationship between superiors' use of practices that facilitate a positive emotional climate and subordinates' appraisal of their co-workers' altruism.

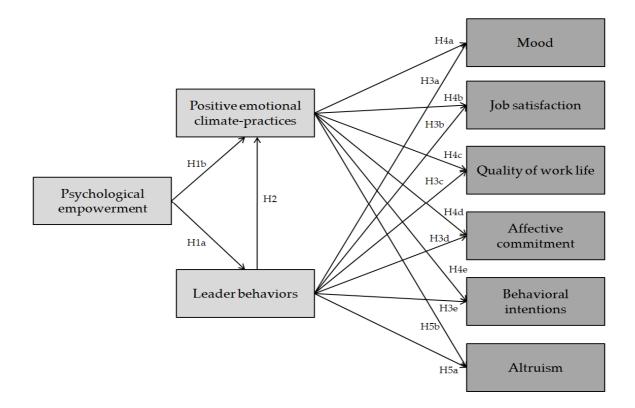


Figure 3: Conceptual model of the hypothesized relationships in a service company<sup>7</sup>

## 3.5. Survey on the emotional climate in a work environment

To test the model assumptions, a survey was programmed and launched on an online platform. Few companies operative in the service industry were contacted. Once the firms had agreed to participate, they received the links to the questionnaires via email. Only a brief description of the participating organizations will be given as anonymity was guaranteed. All results will be presented in Chapter 3.6, whereas Chapter 3.7 deals with the discussion of findings.

#### 3.5.1. Participants

Data was collected from three small and medium-sized service companies. The firms represent diverse lines of business in the service sector. The health care company provides solutions to other companies in the health care industry (e.g., hospitals), the security company is based at the Zurich airport and delivers services in the area of

<sup>&</sup>lt;sup>7</sup> Presumably, there are interdependencies among the variables on the right hand-side of the conceptual model. These individual relations will not be analyzed.

flight safety and airport security, and the third company provides public services and consulting for individuals, couples, families, or larger entities such as schools or communities. The participating service companies were advised to distribute the questionnaires concerning the leaders to superiors on a mid-management level, and the questionnaires regarding the followers to subordinates on the lowest hierarchy level.

Overall, 21 superiors and 50 subordinates took part in the online survey that was completed in approximately 16 minutes. The superiors were on average 42 years old, 47.6% male, and 52.4% female. 4.8% had been working for the company for less than a year, 19% between one and three years, and 71.4% for more than three years. Further, 14.3% had been working in a superior position for less than a year, 42.9% between one and three years, and 42.9% for more than three years.

The subordinates were on average 37 years old. 25 employees were male, 24 were female. Overall, 16.3% had been working for the company for less than a year, 46.9% between one and three years, and 34.7% for more than three years.

## 3.5.2. Measures

The variables in the model (Figure 3) were assessed with two separate questionnaires. The first questionnaire was for the superiors, and entailed questions about their behavior as leaders and some self-report scales. The second questionnaire was adapted to the subordinates, and contained few self-report scales, as well as questions about the behavior of their superiors and colleagues. Both questionnaires were made available in English and in German due to the internationality of the participating firms. As the scales were originally in English, the items were translated independently by two doctoral students to ensure semantic correspondence. This procedure resulted in very few discrepancies which were resolved through discussion (cf., Delobbe & Vandenberghe, 2000).

*Psychological empowerment (superiors, self-report).* Spreitzer (1995) developed a scale for measuring psychological empowerment based on the conceptualization by Thomas and Velthouse (1990). The scale is based on the four dimensions choice/self-determination, competence, meaning, and impact described above (Chapter 3.1). Each dimension is represented by 3 items. Sample items for the dimensions were for instance, "I can decide on my own how to go about doing my work" (choice/self-determination), "I am confident about my ability to do my job" (competence), "The work I do is very important to me" (meaning), and "My impact on what happens in my

department is large" (impact). The items were measured on a seven-point Likert scale ranging from "disagree very strongly" to "agree very strongly".

*Leadership style (superiors, reported by subordinates).* Transformational leader behaviors were assessed with a short version of the scale developed by Podsakoff et al. (1990), measuring the subscales support, group, and model (Chapter 3.2). Sample items for the dimensions were for instance, "My superiors show respect for my personal feelings" (support), "My superiors encourage employees to be team players" (group), and "My superiors lead by 'doing' rather than simply by 'telling'" (model). The transactional leader behaviors were measured with 5 items based on reward contingencies (cf., Podsakoff et al., 1990). A sample item was for instance, "My superiors give me special recognition when my work is very good". The items were measured on a seven-point Likert scale ranging from "disagree very strongly" to "agree very strongly".

*Positive emotional climate-practices (superiors, self-report, and perception by subordinates).* Based on the work by Ozcelik et al. (2008), 5 items were used to assess superiors' use of practices that facilitate positive emotions at work. Both superiors and subordinates were asked to rate to what extent they agreed on a seven-point Likert scale ranging from "disagree very strongly" to "agree very strongly".

*Mood (superiors and subordinates, self-report).* Subjects were instructed to briefly think about the past 3 months and rate how they felt at work during that time. The scale consisted of 4 items that were measured on a five-point continuum ranging from "in a bad mood" to "in a good mood", from "sad" to "happy", from "uncomfortable" to "comfortable", and from "tense" to "calm" (Möll, 2007).

*Job satisfaction (superiors and subordinates, self-report).* The measure of job satisfaction is a merger of the scales by Roelen et al. (2008), and Rutherford et al. (2009). The subscales measuring satisfaction with workload, work times, and salary, were taken from Roelen et al. (2008), whereas the subscales measuring satisfaction with superiors and co-workers, were taken from Rutherford et al. (2009). One item measures overall job satisfaction (Roelen et al., 2008). The selection was the result of a discussion on simplicity and comprehensibility of single items. Participants were asked to rate to what extent each statement applied on a seven-point Likert scale ranging from "not at all" to "extremely".

*Quality of work life (superiors and subordinates, self-report).* The scale "Work-Related Quality of Life" was developed by Van Laar, Edwards, and Easton (2007). The original scale consists of six factors and 23 items. The combination of the six factors provides a global measure of quality of work life. For reasons of focus, the dimension "general well-being" (GWB) was excluded because of its lack of specificity (non-work factor), and "control at work" (CAW) was dropped because of the difficult phrasings of its items. The other work-related factors, "job and career satisfaction" (JCS), "stress at work" (SAW), and "working conditions" (WCS), as well as the factor "home-work interface" (HWI), remained in the questionnaire in a shortened version. Again, participants were asked to rate their agreement on a seven-point Likert scale ranging from "not at all" to "extremely".

*Affective Organizational Commitment (superiors and subordinates, self-report).* Affective organizational commitment describes the feeling of identification and loyalty with an organization, and its values and goals (McElroy & Morrow, 2010). Affective commitment was measured with 5 items taken from a scale developed by Meyer and Allen (1997). Sample items were, e.g., "Working for this organization has a great deal of personal meaning for me", or "I feel 'emotionally attached' to this organization". The employees were able to rate to what extent the statements applied on a seven-point Likert scale ranging from "not at all" to "extremely".

*Behavioral intentions (superiors and subordinates, self-report).* Employees were informed that the questions referred to how they viewed their future at the company. In accordance with the scale by Rutherford et al. (2009), subjects were asked, how they would rate their chances of quitting the job in the next couple of months on a seven-point Likert scale ranging from "very low" to "very high". Additionally, participants were asked, how frequently they thought of quitting their job on a seven-point scale with the endpoints "barely" and "very often" (cf., Delobbe & Vandenberghe, 2000).

*Altruism (co-workers, reported by subordinates).* Altruism is defined as "discretionary behaviors that have the effect of helping a specific other person with an organizationally relevant task or problem" (Podsakoff et al., 1990, p. 115). The subordinates were asked to rate the behavior of their colleagues on items such as "My co-workers help others who have heavy workloads", or "My co-workers are always ready to lend a helping hand to those around them". The 5 items were rated on a seven-point Likert scale ranging from "disagree very strongly" to "agree very strongly".

**Demographics (superiors and subordinates, self-report).** All employees were asked to indicate their gender, date of birth, and the length of time they had been working for the company. In addition, superiors had to provide information on the length of time they had been working in a superior position.

## 3.6. Results

All statistical results of the survey on work environment in a service company are stated in Chapter 3.6. The descriptive analyses, reliability assessments, correlations, t-tests, and the analysis of variance (ANOVA) were computed with SPSS 18. The validity analyses, and model estimations to test the hypotheses were done with AMOS 18.

## 3.6.1. Validity and reliability assessment

To assess the validity of the scales used in the survey (Chapter 3.5.2), confirmatory factor analyses (CFA) were calculated, and Cronbach's alpha coefficients for internal consistency were calculated to evaluate the reliability of the measures (see Appendix). Overall, all scales have high measures of fit and acceptable scale reliabilities, with one exception. Superiors' psychological empowerment is measured rather poorly.

As mentioned, several variables were either assessed by the superiors or by the subordinates (see Chapter 3.5.2). The values in the upper half of the diagonal in Table 1 represent the bivariate correlations between the variables measured by the superiors. Significant values are marked by asterisks.

Thus, there were significant positive correlations between superiors' psychological empowerment and their reported mood at work, job satisfaction, quality of work life, and a significant negative correlation with superiors' behavioral intentions (i.e., intention to quit). Moreover, there were highly significant positive correlations between superiors' mood at work and their reported job satisfaction, and quality of work life. Superiors' affective organizational commitment was positively related to their job satisfaction and quality of work life. And finally, superiors' intentions to quit were negatively correlated to the other concepts.

Interestingly, there were no significant correlations between superiors' psychological empowerment and their reported use of practices that facilitate a positive emotional

climate at work, and no significant relations between superiors' reported use of PECpractices and their mood at work, job satisfaction, quality of work life, affective organizational commitment, or behavioral intentions. However, this is not surprising as one's own use of positive emotional climate-practices does not necessarily concern one's own affectivity, appraisals, or behaviors.

Table 2 represents the bivariate correlations of the variables measured by the subordinates. Overall, there were high significant correlations between all variables with one exception. The behavioral intentions did not correlate significantly with reports about their colleagues altruism. However, the appraisals of superiors' leader behaviors (i.e., transactional and transformational leadership), and superiors' use of practices that facilitate a positive emotional climate at work are in fact significantly and positively related to subordinates' mood at work, job satisfaction, quality of work life, affective organizational commitment, and their appraisals of colleagues' altruism, whereas the leader behaviors are negatively related to subordinates' behavioral intentions, as expected.

|                                 | M    | SD   | Ι | 7    | 3     | 4      | 5      | 9      | 7     |
|---------------------------------|------|------|---|------|-------|--------|--------|--------|-------|
| I Psychological empowerment     | 5.77 | 0.78 |   | .245 | .524* | .746** | .710** | .325   | 533*  |
| 2 PEC-practices                 | 6.10 | 0.68 |   |      | .067  | .088   | .268   | .049   | 020   |
| 3 Mood at work                  | 3.60 | 0.82 |   |      |       | .537*  | .753** | .306   | 625** |
| 4 Job satisfaction              | 4.93 | 1.00 |   |      |       |        | .877** | .625** | 715** |
| 5 Quality of work life          | 4.76 | 1.02 |   |      |       |        |        | .543*  | 744** |
| 6 Affective organiz. commitment | 4.66 | 1.25 |   |      |       |        |        |        | 569** |
| 7 Behavioral intentions         | 2.99 | 1.93 |   |      |       |        |        |        |       |
|                                 |      |      |   |      |       |        |        |        |       |

Table 1: Means, standard deviations, and bivariate correlations for the measures used in the survey (Superiors)

Notes: N = 21, \*p < 0.05, \*\*p < 0.01

| _                   |
|---------------------|
| rdinates)           |
| Subo                |
| $\sim$              |
| the survey          |
|                     |
| Е.                  |
| nsed                |
| asures              |
| ne meas             |
| for th              |
| ns fe               |
| latio               |
| ariate correlations |
|                     |
| biy                 |
| and                 |
| iations,            |
| dev                 |
| dard                |
| stan                |
| Means,              |
| ä                   |
| Table               |

|  | Ν    | G    | - | ,      | ۲             | P      | v      | y      | ٢      | ×     | 0      |
|--|------|------|---|--------|---------------|--------|--------|--------|--------|-------|--------|
|  |      |      | - | 1      | 2             | •      | 2      | •      |        | þ     |        |
| I Transactional leadership               | 4.51 | 1.65 |   | **077. | **8 <i>LL</i> | **089. | .754** | .678** | .595** | 749** | .392** |
| 2 Transformational leadership            | 4.49 | 1.65 |   |        | .942**        | .620** | .831** | .675** | .676** | 639** | .463** |
| 3 PEC-practices                          | 4.44 | 1.74 |   |        |               | .631** | .839** | .701** | .703** | 695** | .305*  |
| 4 Mood at work                           | 3.50 | 1.01 |   |        |               |        | **869. | .780** | .504** | 554** | .450** |
| 5 Job satisfaction                       | 4.61 | 1.16 |   |        |               |        |        | .771** | .684** | 776** | .504** |
| 6 Quality of work life                   | 4.71 | 1.15 |   |        |               |        |        |        | .532** | 714** | .356*  |
| 7 Affective organiz. commitment          | 4.07 | 1.50 |   |        |               |        |        |        |        | 612** | .380** |
| 8 Behavioral intentions                  | 3.29 | 1.96 |   |        |               |        |        |        |        |       | 240    |
| 9 Altruism                               | 5.58 | 1.23 |   |        |               |        |        |        |        |       |        |
| Notes: $N = 50 \ *n < 0.05 \ **n < 0.01$ |      |      |   |        |               |        |        |        |        |       |        |

Notes: N = 50, \*p < 0.05, \*\*p < 0.01

#### Subsequent analyses

To test the assumption that employees working in the same work environment will have similar perceptions or appraisals thereof, or might share affective states, an overall independent t-test was calculated with respect to mood. Levene's statistic testing the homogeneity of variances was marginally significant (F = 3.445, p < 0.10), i.e., equal variances cannot be assumed (Field, 2009). As a consequence, the degrees of freedom were adjusted from 69 to 46. A non-significant t-test (t(46) = 0.439, n.s.) revealed, that there are no significant differences between superiors' mood at work, in comparison to subordinates' mood at work. In addition, the effect size was calculated by converting the *t*-value into an *r*-value:  $r = \sqrt{(t^2/(t^2 + df))}$  (Rosenthal, 1991; cit. in Field, 2009, p. 332). The r-value is 0.06, confirming, that there are no differences between the moods of superiors and subordinates. An overall independent t-test with respect to employees' job satisfaction also revealed no significant differences between superiors and subordinates: t(69) = 1.116, n.s.; equal variances assumed (F = 1.417, n.s.), r = 0.13 (rather moderate effect). Employees' evaluations of their work-related quality of life did not yield any differences either: t(69) = 0.156, n.s.; equal variances assumed (F = 0.390, n.s.), r < 0.02 (no effect). The t-test concerning superiors' or subordinates' affective organizational commitment revealed no significant difference: t(69) = 1.575, n.s; equal variances assumed (F = 1.820, n.s.). But the effect size is between moderate and medium (r = 0.19). And finally, there was no significant difference between superiors' intentions to leave, compared to subordinates' behavioral intentions: t(69) = -0.595, n.s.; equal variances assumed (F = 0.241, n.s.), r = 0.07 (no effect).

In summary, appraisals with respect to mood at work, job satisfaction, quality of work life, affective organizational commitment, and behavioral intentions (i.e., turnover) did not differ significantly between superiors and subordinates. However, there was a midsized effect concerning differences in affective organizational commitment between superiors and subordinates.

For the sake of completeness, analyses were run per company. There were no differences in any of the variables measured for the employees of the security or the public service company (see Appendix). However, there was a significant difference in affective organizational commitment between superiors and subordinates in the health care company: t(15) = 2.311, p < 0.05, equal variances assumed (F = 0.047, n.s.).

Overall, superiors' affective organizational commitment was significantly higher ( $M_{superiors} = 5.03$ , SD = 1.02) compared to the reported commitment of the subordinates ( $M_{subordinates} = 3.93$ , SD = 0.90). The effect size confirms the very large effect: r = 0.51 (cf., Field, 2009).

In addition to measuring the positive emotional climate-practices by superiors' selfreport, the behaviors were also measured as a perception variable, i.e., the subordinates were asked to rate how they perceive their superiors' use of practices that facilitate a positive emotional climate at work. The question is, whether there will be a high consensus between superiors' self-report of their use of these PEC-practices and the perception of superiors' use by the subordinates. To test this assumption, an independent t-test was calculated. Levene's statistic showed that equal variances cannot be assumed (F = 25.148, p < 0.001). Interestingly, superiors rated their use of practices that facilitate a positive emotional climate at work higher (M<sub>superiors</sub> = 6.10, SD = 0.68), in comparison to subordinates' perception of their superiors' use of these PEC-practices (M<sub>subordinates</sub> = 4.44, SD = 1.74). The difference was highly significant: t(69) = 5.779, p < 0.001. The effect size was r = 0.57. Again, the effect size was very large.

Analyses were also run for each company. The significant difference between superiors' self-report and subordinates' perception was replicated in the health care organization and in the security company sample (see Appendix). Interestingly, there were no differences between superiors' self-reports of their use of PEC-practices and the perception thereof by the subordinates in the public service company: t(16) = 0.669, n.s.; equal variances assumed (F = 2.421, n.s.), r < 0.16 (moderate effect size).

#### **3.6.2.** Hypothesis testing

All models and hypotheses were tested with a path analysis using AMOS 18. The covariance matrix was used as input to estimate the models (cf., Weiber & Mühlhaus, 2010). This procedure is also known as covariance structure analysis or simultaneous equations modeling (cf., Marquart-Pyatt, 2010). Manifest<sup>8</sup> variables were used due to the rather small sample size (cf., Pugh, 2001). Moreover, confirmatory factor analyses

<sup>&</sup>lt;sup>8</sup> Other authors report analyzing the data using structural equation models with latent variables (cf., Martin & Bush, 2006). However, each latent variable is only represented by one indicator which corresponds to the construct's scale (averaged item scores). Hence, it was deemed as justifiable to use a path analysis.

and Cronbach's alpha established validity and reliability (i.e., internal consistency) of the scales used in the survey.

### Models 1 and 2

To test the assumptions, the superiors were set as the unit of analysis, since it was the influence of their psychological empowerment on their leader behaviors that needed to be examined with respect to the overall impact on the subordinates. As a consequence, the data file was restructured. Analog to Martin and Bush (2006), one superior's response was matched with multiple responses of the subordinates. The ratios were 1:2 for the health care and public service companies, and 1:3 for the security company. One superior of the security company had to be excluded from all analyses because his or her subordinates' responses could not be matched. The procedure created a single data set which represented the superiors as the unit of analysis, and their subordinates' aggregated appraisals.

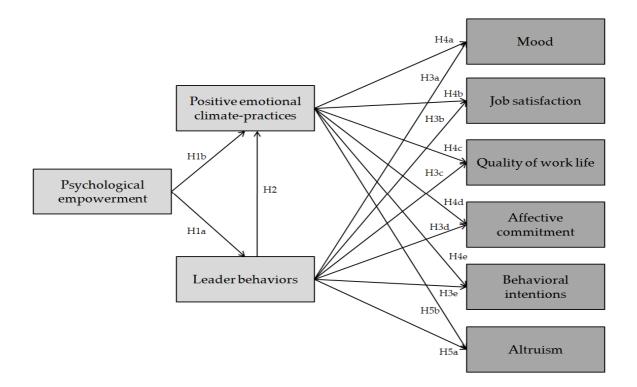


Figure 4: Original measurement model, Models 1 and 2

Figure 4 represents a one-directional, recursive model with superiors' psychological empowerment as an exogenous variable, whereas all other variables are endogenous. In *Model 1, transactional leadership* represents the leader behaviors mentioned in the model. Before estimation, the identification status of a model has to be examined. Identification describes whether there is enough information in the data to estimate the model parameters (Weiber & Mühlhaus, 2010, p. 52).

Consider p to be the number of endogenous variables, and q to be the number of exogenous variables. Then, the number of elements in the (diagonal) variancecovariance matrix is equal to  $\frac{1}{2}$  (p+q)(p+q+1). If t is the number of model parameters to be estimated, a model is identifiable under the following condition:  $t \le \frac{1}{2}$  (p+q)(p+q+1). The model illustrated above contains one exogenous and eight endogenous variables, and 24 model parameters (9 variances and 15 paths). Hence, the *necessary condition* for identification is satisfied ( $24 \le \frac{1}{2}$  (8+1)(8+1+1)) by the *t-rule* (cf., Bollen, 1989).

In general, models can be represented as path diagrams (above), structural or reduced equations, and matrices (cf., Marquart-Pyatt, 2010). As mentioned, the model depicted above is recursive. Bollen points out that the *recursive rule* is a *sufficient condition* for identification. "For the recursive rule to apply, the **B** matrix must be [lower/J.S.] triangular, and the  $\Psi$  matrix must be diagonal" (Bollen, 1989, p. 95). This can easily be determined when examining *Model 1* represented as equations and matrices below.

#### Structural equation

Matrix notation

|  | $\begin{pmatrix} y_1 \\ y_2 \end{pmatrix}$          | $\left(egin{array}{c} eta_{10} \ eta_{20} \ eta \end{array} ight)$ | $\beta_{21}$  |   | 0      | 0      | 0      |        | 0<br>0      | 0<br>0       | $ \begin{pmatrix} 1 \\ y_1 \\ y_2 \end{pmatrix} $ |   | γ11<br>γ21    |          | (μ1)<br>μ2       |  |
|--|---|--|---------------|---|--------|--------|--------|--------|-------------|--------------|---|---|---------------|----------|------------------|--|
| $y_{3} = \beta_{30} + \beta_{31} y_{1} + \beta_{32} y_{2} + \mu_{3}$<br>$y_{4} = \beta_{40} + \beta_{41} y_{1} + \beta_{42} y_{2} + \mu_{4}$<br>$y_{5} = \beta_{50} + \beta_{51} y_{1} + \beta_{52} y_{2} + \mu_{5}$<br>$y_{4} = \beta_{40} + \beta_{41} y_{1} + \beta_{42} y_{2} + \mu_{4}$ | $\begin{vmatrix} y_3 \\ y_4 \\ y_5 \end{vmatrix} =$ | $\beta_{50}$   | $eta_{_{51}}$ | $egin{array}{c} eta_{32} \ eta_{42} \ eta_{52} \ eta \end{array}$ | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 |             | 0<br>0<br>0  | y3<br>y4<br>y5                                    | + | 0<br>0<br>0   | $(x_1)+$ | μ3<br>μ4<br>μ5   |  |
| $y_6 = \beta_{60} + \beta_{61} y_1 + \beta_{62} y_2 + \mu_6$<br>$y_7 = \beta_{70} + \beta_{71} y_1 + \beta_{72} y_2 + \mu_7$<br>$y_8 = \beta_{80} + \beta_{81} y_1 + \beta_{82} y_2 + \mu_8$   | $\begin{pmatrix} y_6 \\ y_7 \\ y_8 \end{pmatrix}$   | $egin{array}{c} eta_{60} \ eta_{70} \ eta_{80} \end{array}$        | $eta_{_{71}}$ | $egin{array}{l} eta_{62} \ eta_{72} \ eta_{82} \end{array}$       | 0      | 0      | 0      | 0      | 0<br>0<br>0 | 0<br>0<br>0) | у6<br>У7<br>У8)                                   |   | 0<br>0<br>0 ) |          | μ6<br>μ7<br>(μ8) |  |

It is evident now, that the **B** matrix is lower triangular, the intercept term does not matter here. The " $\beta$  coefficients only appear on one side of the diagonal of the  $\beta$  matrix; with zeros on the other side" (cf., Marquart-Pyatt, 2010). The  $\Psi$  matrix which represents the covariances of the disturbance terms is diagonal as we can see in the path diagram, i.e., the error terms are uncorrelated. Thus, for further reference, both

rules are satisfied for recursive models: they can either be *just identified*  $(t = \frac{1}{2} (p+q)(p+q+1))$ , or *overidentified*  $(t < \frac{1}{2} (p+q)(p+q+1))$  (cf., Bollen, 1989). Weiber and Mühlhaus (2010) propose that for practical use, it is useful for the *degrees* of *freedom* ( $\frac{1}{2} (p+q)(p+q+1) - t$ ) to be at least equal to the number of the model parameters to be estimated.

As stated above, *Model 1* is a recursive, overidentified model. However, the degrees of freedom are lower than the number of model parameters (45 - 24 = 21). The chi-square test revealed a significant overall effect:  $\chi^2$  (21) = 47.976, p < 0.001. Weiber and Mühlhaus (2010) recommend using the chi-square test mainly as a descriptive as it reacts strongly to sample size. The authors cite Homburg and Baumgartner (1995) who suggest examining chi-square in relation to the degrees of freedom. The resulting value should be either lower or equal to 2.5. AMOS provides the ratio for Model 1 under CMIN/DF: 2.285. The value is acceptable. However, there are other perhaps even more important measures of model fit. Fit measures that are based on the likelihood ratio (i.e., chi-square), and assume that the model fits the population comparatively well, include the normed fit index (NFI), or the Tucker-Lewis index (TLI), also known as non-normed fit index (NNFI). Kaplan (2000) states that the NFI and TLI (NNFI) both assume "a central chi-square distribution of the test statistic" (p. 108). However, this might not always be the case as we may assume that parameters may be non-central. Therefore, we can also use the *comparative fit index* (CFI) to assess model fit. "The usual rule of thumb for these indices is that 0.95 is indicative of a good fit relative to the baseline model" (Kaplan, 2000, p. 107). For Model 1, the TLI is 0.707, and the CFI is 0.829. Another measure that needs to be examined in order to assess if the model approximately fits the data, is the RMSEA (root mean square error of approximation). Following cut-off points were defined by Browne and Cudeck (1993; cit. in Kaplan, 2000, p. 113f): close model fit (RMSEA  $\leq 0.05$ ), fair or reasonable model fit (RMSEA  $\leq 0.08$ ), mediocre model fit (RMSEA < 0.10), and inacceptable model fit (RMSEA  $\ge$  0.10). The RMSEA for Model 1 is 0.253. Overall, the fit measures indicate a bad model fit, despite the significant chi-square test and acceptable CMIN/DF. Table 3 provides an overview over parameter estimates for Model 1.

The paths leading from superiors' psychological empowerment to their transactional leader behaviors or to their use of practices that facilitate a positive emotional climate at work (both reported by their subordinates), are not significant, yielding no support for H1a or H1b. Further, the paths leading from transactional leadership to

subordinates' job satisfaction, quality of work life, affective commitment, and colleagues' altruism are not significant (H3b, H3c, H3d, and H5a). In addition, the PEC-practices seem to have no direct effect on subordinates' mood at work (H4a).

| Parameter       | Path   | Estimate         | <i>S.E.</i> |
|-----------------|--|------------------|-------------|
| γ11             | Empowerment $\rightarrow$ Transactional leadership           | 266              | .344        |
| γ <sub>21</sub> | Empowerment $\rightarrow$ PEC-practices                      | .168             | .185        |
| β <sub>21</sub> | Transactional leadership $\rightarrow$ PEC-practices         | .830***          | .118        |
| β <sub>31</sub> | Transactional leadership →Mood                               | .380***          | .102        |
| β <sub>41</sub> | Transactional leadership $\rightarrow$ Satisfaction          | .065             | .129        |
| β <sub>51</sub> | Transactional leadership $\rightarrow$ Quality of work life  | .195             | .159        |
| β <sub>61</sub> | Transactional leadership $\rightarrow$ Affective commitment  | 119              | .201        |
| β <sub>71</sub> | Transactional leadership $\rightarrow$ Behavioral intentions | 467+             | .253        |
| β <sub>81</sub> | Transactional leadership $\rightarrow$ Altruism              | .203             | .252        |
| β <sub>32</sub> | PEC-practices $\rightarrow$ Mood                             | .043             | .105        |
| β <sub>42</sub> | PEC-practices $\rightarrow$ Satisfaction                     | .579***          | .133        |
| β <sub>52</sub> | PEC-practices $\rightarrow$ Quality of work life             | .346*            | .164        |
| β <sub>62</sub> | PEC-practices $\rightarrow$ Affective commitment             | .598**           | .207        |
| β <sub>72</sub> | PEC-practices $\rightarrow$ Behavioral intentions            | 480 <sup>†</sup> | .261        |
| β <sub>82</sub> | PEC-practices $\rightarrow$ Altruism                         | .215             | .260        |

Table 3: Maximum likelihood results for Model 1

Notes: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001, <sup>†</sup>p < 0.10 is considered marginally significant

In summary, the first results showed that psychological empowerment seemed to be a problematic variable with no influences on superiors' behaviors. However, before drawing any conclusions, the model pictured in Figure 4 was estimated with superiors' *transformational leadership* in place of transactional leader behaviors. Analog to the previous model, *Model 2* is one-directional and overidentified by the *t-rule* (Bollen, 1989). The chi-square test was significant:  $\chi^2$  (21) = 42.017, p < 0.01, and the relation between the chi-square value and the degrees of freedom is once again acceptable: CMIN/DF = 2.001. Unfortunately, the fit measures clearly indicate that although *Model 2* seems to fit the data slightly better, it is still a rather poor fit: TLI = 0.805, CFI = 0.886, and RMSEA = 0.224. An examination of the paths reveals a similar impression in accordance with *Model 1*.

Once again, the paths between superiors' psychological empowerment and their practices that facilitate a positive emotional climate at work proved to be non-significant (Table 4). Also, empowerment seems to have no effect on superiors' transformational leader behaviors. The paths leading from superiors' transformational leader behaviors to subordinates' mood, quality of work life, affective commitment, and behavioral intentions are also non-significant. The same applies to the paths leading from the PEC-practices to subordinates' mood, job satisfaction, and quality of work life.

| Parameter       | Path  | Estimate  | <i>S.E.</i> |
|-----------------|---|-----------|-------------|
| γ11             | Empowerment $\rightarrow$ Transformational leadership           | 001       | .324        |
| γ <sub>21</sub> | Empowerment $\rightarrow$ PEC-practices                         | 052       | .116        |
| $\beta_{21}$    | Transformational leadership $\rightarrow$ PEC-practices         | .982***   | .080        |
| $\beta_{31}$    | Transformational leadership →Mood                               | .263      | .220        |
| $\beta_{41}$    | Transformational leadership $\rightarrow$ Job satisfaction      | .556**    | .184        |
| β <sub>51</sub> | Transformational leadership $\rightarrow$ Quality of work life  | .258      | .276        |
| $\beta_{61}$    | Transformational leadership $\rightarrow$ Affective commitment  | 268       | .343        |
| β <sub>71</sub> | Transformational leadership $\rightarrow$ Behavioral intentions | .100      | .468        |
| $\beta_{81}$    | Transformational leadership $\rightarrow$ Altruism              | 1.582***  | .259        |
| $\beta_{32}$    | PEC-practices $\rightarrow$ Mood                                | .136      | .210        |
| $\beta_{42}$    | PEC-practices $\rightarrow$ Job satisfaction                    | .136      | .176        |
| β <sub>52</sub> | PEC-practices $\rightarrow$ Quality of work life                | .283      | .264        |
| β <sub>62</sub> | PEC-practices $\rightarrow$ Affective commitment                | .736*     | .327        |
| β <sub>72</sub> | PEC-practices $\rightarrow$ Behavioral intentions               | 971*      | .447        |
| $\beta_{82}$    | PEC-practices $\rightarrow$ Altruism                            | -1.029*** | .247        |

Table 4: Maximum likelihood results for Model 2

Notes: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

In summary, the paths between psychological empowerment and leaders' behaviors and practices are not significant. By including psychological empowerment, both models seem to fit the data rather poorly. These findings propose an exclusion of the variable "superiors' psychological empowerment" from further analyses. Moreover, most paths in the estimated models are not significant. This may come as a surprise considering that the correlation matrix revealed significantly high relations between superiors' leadership and leader practices, and subordinates' appraisals and behaviors. The answer may lie in the aggregation of subordinates' responses which might have lead to a loss of important information, or when considering that the scale had a rather poor measure of fit.

Normally, the estimated models would be adapted in the process by deleting nonsignificant paths and reassessing the modified model (cf., Martin & Bush, 2006). But above findings revealed that the model including superiors' appraisals of their psychological empowerment might not work for the data, and the aggregation of subordinates' responses might be problematic. Therefore, *Models 1* and 2 were examined more closely by looking at the individual relationships. Model revisions (and discussion of paths) will therefore be made as of *Model 3*.

## Testing the influences of psychological empowerment

Thus, for the sake of completeness, and before dropping a variable from subsequent analyses, a median-split of superiors' psychological empowerment was computed. The underlying assumptions of an analysis of variance (ANOVA) were examined a priori. The Kolmogorov-Smirnov (K-S) test assesses whether the data of a given sample is comparable to a normal distribution (cf., Field, 2009). The K-S test revealed that normality can be assumed for subordinates' aggregated responses of their superiors' leader behaviors and positive emotional climate-practices, as well as for the aggregated responses of subordinates' mood, job satisfaction, quality of work life, behavioral intentions, and colleagues' altruism. In the group of superiors who feel less empowered, subordinates' aggregated responses with respect to their affective organizational commitment resembles a normal distribution in accordance with the other measures. In the group of superiors who feel more empowered however, the data is non-normally distributed (see Appendix). With respect to the homogeneity of variances, Levene's statistic tests whether the variances of the groups are different, i.e., if the test is non-significant, equal variances can be assumed (cf., Field, 2009). Levene's test shows that the variances are equal for superiors' leader behaviors (i.e., transactional and transformational leadership), subordinates' mood at work, job satisfaction, quality of work life, affective organizational commitment, behavioral intentions, and colleagues' altruism. Levene's test however was marginally significant for superiors' PEC-practices (see Appendix). Again, these measures are an aggregation of reports by the subordinates.

The ANOVA revealed a significant difference in means, although previous analyses showed that there is no significant correlation between superiors' psychological empowerment and their reported use of practices that facilitate a positive emotional climate at work. Superiors who reported feeling more empowered in their work, also report a higher use of practices that facilitate a positive emotional climate  $(M_{more\ empowered} = 6.46, SD = 0.33)$ , in comparison to superiors who feel less empowered ( $M_{less\ empowered} = 5.78, SD = 0.76$ ), and report less use of PEC-practices: F (1,19) = 6. 771, p < 0.05. This finding provides support for H1b, albeit under the condition of a median-split. Moreover, the effect vanished when using the aggregated responses of the subordinates (F (1,19) = 0.036, n.s.), in accordance with the path analysis reported above. The difference in findings could either be due to the differences noticed between superiors' self-perceptions and subordinates' report, or be due to the fact, that there is a loss of information when aggregating subordinates' responses as suggested by Martin and Bush (2006).

In addition, psychological empowerment was examined in relation to subordinates' aggregated assessments of superiors' leader behaviors (Table 5). Superiors' psychological empowerment does not lead them to use either more or less transactional (F (1,19) = 0.003, n.s.), or more or less transformational leader behaviors (F (1,19) = 0.424, n.s.). Moreover, t-tests revealed no significant differences in means in the group of superiors who feel less empowered, or the group of superiors who feel more empowered. This means, there were no preferences for either transactional or transformational leadership within groups. Thus again, H1a cannot be supported due to these findings.

| Superiors' psychological<br>empowerment (median-split) | Transactional<br>leadership | Transformational<br>leadership | t-tests              |
|--|-----------------------------|--------------------------------|----------------------|
| less empowered   | M = 4.64 (SD = 1.19)        | M = 4.52 (SD = 0.93)           | t (10) = 0.511, n.s. |
| more empowered   | M = 4.61 (SD = 1.30)        | M = 4.85 (SD = 1.33)           | t (9) = -1.142, n.s. |
| ANOVA  | F (1,19) = 0.003, n.s.      | F(1,19) = 0.424, n.s.          |                      |

 Table 5: Differences in group means with respect to psychological empowerment

## Model 3

As superiors' psychological empowerment only had an effect after a median-split, the variable was dropped from subsequent analyses. Superiors' empowerment was the only variable that could not be measured by the subordinates. Now that the variable no longer remained part of the examination, the unit of analysis was adapted to the subordinates. All included variables correspond to subordinates' appraisals of their

superiors' behaviors, as well as assessments of their own feelings, thoughts, and behaviors. The problem of aggregation is no longer an issue. Again, all models were tested with a path analysis using AMOS 18, and the covariance matrix was used as input to estimate the models.

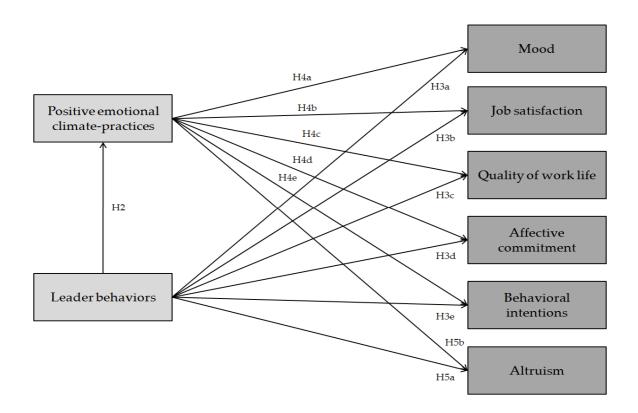


Figure 5: Original measurement model, Models 3 and 4

The model presented in Figure 5 is one-directional, with 1 exogenous and 7 endogenous variables. In *Model 3, transactional leadership* represents the leader behaviors depicted in the model. As a recursive model, and by the *t-rule*  $(21 < \frac{1}{2} (7+1)(7+1+1))$ , we can safely say that it is identified, in this case even overidentified. Still, the degrees of freedom are lower than the number of model parameters (36 - 21 = 15). The chi-square test was significant:  $\chi^2$  (15) = 68.044, p < 0.001, and the CMIN/DF-ratio is 4.536, rather unacceptable (Homburg & Baumgartner, 1995).

Moreover, the fit measures clearly indicate a poor model: TLI = 0.677, CFI = 0.827, and RMSEA = 0.269. An examination of the paths revealed non-significant direct relations between superiors' transactional leader behaviors and subordinates' affective commitment, and between superiors' PEC-practices and subordinates' mood and their

assessment of colleagues' altruism. *Model 3* was adjusted in a step-wise process to ensure a better model fit as long as it made sense from a theoretical perspective. In a first step, non-significant paths were removed from the model (cf., Anderson & Gerbing, 1988). Subsequently, some of the error terms of the endogenous variables were correlated where it seemed necessary (cf., modification indices). Adding covariances between the disturbance terms makes the model a *seemingly unrelated regressions* (SUR) model. In accordance with recursive models, SUR models are always identified (cf., Marquart-Pyatt, 2010). Due to the additional information represented in a model however, SUR models should not be treated as classical regressions.

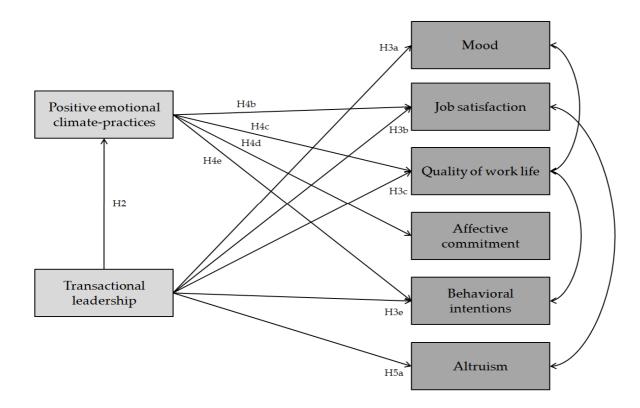


Figure 6: Modified measurement model, Model 3

The final version of *Model 3* (Figure 6), represents only significant paths. In support of H2, transactional leadership has an impact on the practices that facilitate a positive emotional climate at work. Further, there are significant paths leading from transactional leadership to subordinates' mood, job satisfaction, quality of work life, behavioral intentions, and colleagues' altruism in support of H3a, H3b, H3c, H3e, and H5a. The path leading from superiors' transactional leader behaviors to subordinates' affective organizational commitment could not be supported (H3d).

In addition, the analysis revealed significant paths leading from superiors' PECpractices to subordinates' job satisfaction, quality of work life, affective organizational commitment, and subordinates' behavioral intentions, in support of H4b, H4c, H4d, and H4e. But there were no significant paths between superiors' PEC-practices and subordinates' mood at work (H4a) or colleagues' altruism (H5b). The chi-square test was significant:  $\chi^2$  (15) = 32.919, p < 0.01, and the CMIN/DF-ratio is 2.195, acceptable. Still, there are less degrees of freedom compared to the parameters to be estimated. The overall fit measures suggest that the model fits the data better than the previous models, although the fit is still quite moderate: TLI = 0.891, CFI = 0.942, and RMSEA = 0.156. Table 6 reports the parameter estimates for the revised *Model 3*.

 Table 6: Maximum likelihood results for Model 3

| Parameter       | Path   | Estimate | <i>S.E.</i> |
|-----------------|--|----------|-------------|
| γ <sub>11</sub> | Transactional leadership $\rightarrow$ PEC-practices         | .824***  | .095        |
| γ <sub>21</sub> | Transactional leadership →Mood                               | .418***  | .064        |
| γ <sub>31</sub> | Transactional leadership $\rightarrow$ Job satisfaction      | .182*    | .079        |
| $\gamma_{41}$   | Transactional leadership $\rightarrow$ Quality of work life  | .309**   | .098        |
| γ <sub>61</sub> | Transactional leadership $\rightarrow$ Behavioral intentions | 628***   | .173        |
| γ <sub>71</sub> | Transactional leadership $\rightarrow$ Altruism              | .292**   | .098        |
| β <sub>31</sub> | PEC-practices $\rightarrow$ Job satisfaction                 | .427***  | .071        |
| $\beta_{41}$    | PEC-practices $\rightarrow$ Quality of work life             | .202*    | .085        |
| β <sub>51</sub> | PEC-practices $\rightarrow$ Affective commitment             | .603***  | .087        |
| β <sub>61</sub> | PEC-practices $\rightarrow$ Behavioral intentions            | 320*     | .163        |

Notes: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

It is quite interesting that in *Model 3* there are in fact significant paths between transactional leader behaviors and subordinates' job satisfaction, quality of work life, and colleagues' altruism. These paths had been non-significant in *Model 1* which included superiors' psychological empowerment, a variable that barely influenced any other variable in the model, and was therefore dropped. In accordance with *Model 1* however, there were no significant direct paths from superiors' practices that facilitate a positive emotional climate at work and subordinates' mood, or colleagues' altruism.

## Model 4

Model 4 started out exactly as Model 3 (Figure 5), i.e., as a one-directional, recursive model with 1 exogenous and 7 endogenous variables. The only difference was, that in Model 4, superiors' transformational leadership style represents the leader behaviors. In accordance with the information above, the original model was also overidentified but the degrees of freedom were lower than the number of model parameters (36 - 21 = 15). The chi-square test was significant:  $\chi^2(15) = 78.007$ , p < 0.001, and the CMIN/DF-ratio was 5.200, which already indicates a very poor model. The measures of fit confirm the initial impression: TLI = 0.679, CFI = 0.828, and RMSEA = 0.293. The original model had many non-significant direct paths between superiors' transformational leader behaviors and subordinates' mood, job satisfaction, workrelated quality of life, affective commitment, and subordinates' behavioral intentions. Further, there were no direct relations between superiors' PEC-practices and subordinates' mood. All other paths were either highly or moderately significant. In accordance with the procedure stated above, Model 4 was adjusted in a step-wise process by removal of non-significant paths. Overall, there was no significant direct relation to subordinates' mood, yielding no support for H3a or H4a. As a consequence, mood was excluded in the revised model.

The ultimate version of *Model 4* is illustrated below (Figure 7). Since mood was removed, the revised path model has 1 exogenous and 6 endogenous variables. All remaining paths are highly significant. Few disturbance terms were correlated to ensure a better fit of the model, resulting in an identified SUR model. Superiors' transformational leadership has a significant impact on their use of practices that facilitate a positive emotional climate at work, in support of H2. Unfortunately, there was no support for H3b-H3e, all paths were non-significant.

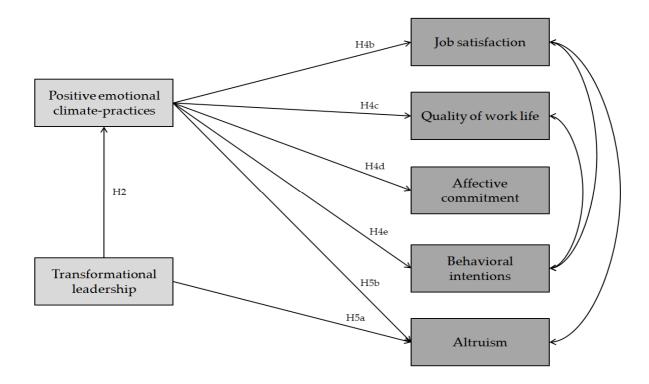


Figure 7: Modified measurement model, Model 4

Thus, superiors' transformational leader behaviors do not impact subordinates' job satisfaction, quality of work life, affective organizational commitment, or behavioral intentions. However, these dependent variables were influenced by superiors' practices that facilitate a positive emotional climate at work, in support of H4b-H4e. The PEC-practices possibly serve as a mediator. With respect to colleagues' altruism, there were significant direct relations to both transformational leadership (H5a), and the PEC-practices (H5b). The chi-square test is significant:  $\chi^2$  (11) = 23.737, p < 0.05, and the CMIN/DF-ratio is 2.158 (acceptable). Still, there are less degrees of freedom compared to the parameters to be estimated. The overall fit measures suggest that the model fits the data quite well: TLI = 0.924 and CFI = 0.960. Unfortunately, the RMSEA (0.154) is still above the suggested cut-off proposed by Browne and Cudeck (1993; cit. in Kaplan, 2000, p. 113f). The parameter estimates are stated below (Table 7).

| Parameter       | Path  | Estimate | <i>S.E.</i> |
|-----------------|---|----------|-------------|
| <b>γ</b> 11     | Transformational leadership $\rightarrow$ PEC-practices | .994***  | .050        |
| γ <sub>71</sub> | Transformational leadership →Altruism                   | .926***  | .223        |
| β <sub>31</sub> | PEC-practices $\rightarrow$ Job satisfaction            | .560***  | .052        |
| β <sub>41</sub> | PEC-practices $\rightarrow$ Quality of work life        | .464***  | .067        |
| β <sub>51</sub> | PEC-practices $\rightarrow$ Affective commitment        | .603***  | .087        |
| β <sub>61</sub> | PEC-practices $\rightarrow$ Behavioral intentions       | 781***   | .110        |
| β <sub>71</sub> | PEC-practices →Altruism                                 | 613**    | .214        |

Table 7: Maximum likelihood results for Model 4

Notes: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Interestingly, *Model 4* confirms the non-significant impact of transformational leader behaviors on subordinates' mood as in *Model 2*. In accordance with *Models 1, 2* and *3*, the PEC-practices have no effect on subordinates' mood. Moreover, as proposed by *Model 2*, transformational leadership seems to have no influence on subordinates' job satisfaction, quality of work life, affective organizational commitment, or behavioral intentions. In contrast to *Model 2* however, *Model 4* clearly indicates that superiors' practices that facilitate a positive emotional climate at work does have an influence on subordinates' job satisfaction and quality of work life. So, when taking superiors' psychological empowerment into account which came hand in hand with a poor model fit, significant paths become non-significant.

#### Model 5

As noted above, transformational and transactional leadership styles have differential effects on the subordinates as a group. However, transactional and transformational leader behaviors are not completely distinct from each other in reality. It is highly likely that they are either mutually dependent on each other, or form a latent construct labeled "leader behaviors", as proposed by Podsakoff et al. (1990). In order to examine which model makes more sense, these two alternatives were estimated. In *Model*  $5^9$  (below), transactional and transformational leadership were included as separate constructs which are related by a covariance, i.e. they are mutually dependent on each other.

<sup>&</sup>lt;sup>9</sup> For reasons of clarity, the hypothesis were omitted in Model 5.

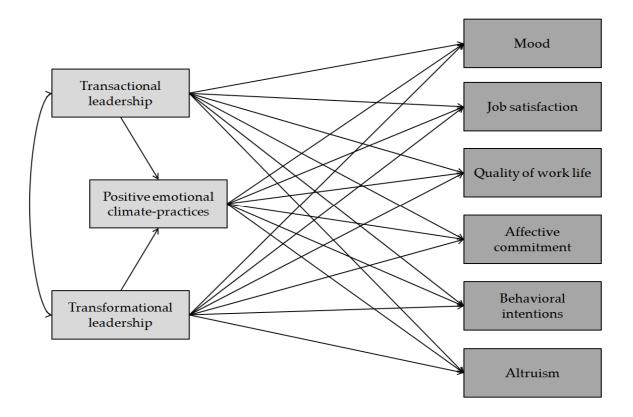


Figure 8: Original measurement model, Model 5

In contrast to the previous models, *Model 5* has two exogenous variables (Figure 8). Both leadership styles influence superiors' practices that facilitate a positive emotional climate at work, and there are paths leading from both leader behaviors to the outcome variables on subordinate-level. To summarize, the model has 2 exogenous and 7 endogenous variables, which represent 9 variances, 1 covariance, and 20 paths. Hence, there are 30 model parameters to be estimated. *Model 5* is identified by the *t*-*rule*:  $(30 \le \frac{1}{2} (7+2)(7+2+1))$  (Bollen, 1989).

As expected, the initial model presented above, fits the data rather poorly: CMIN/DF = 4.477, TLI = 0.706, CFI = 0.878, and RMSEA = 0.266. The overall chi-square test was significant:  $\chi^2$  (15) = 67.157, p < 0.001, but once again the number of degrees of freedom is higher than the number of parameters to be estimated. The initial model was adjusted in a step-wise process. As before, non-significant paths were removed and few error terms were correlated where it seemed necessary.

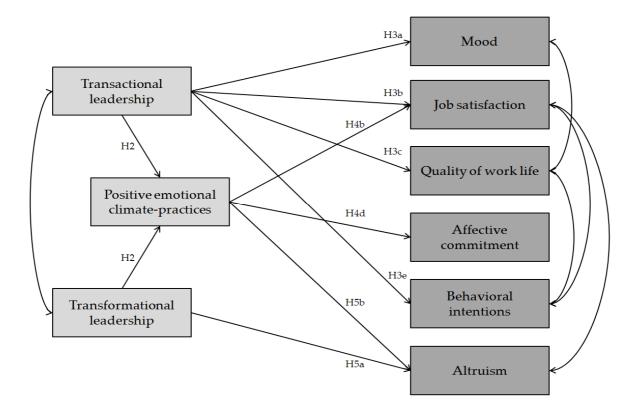


Figure 9: Modified measurement model, Model 5

During the process, one version of *Model 5* replicated the findings in exact accordance with Models 3 and 4. However, to ensure a better overall model fit, Model 5 was improved. The final version (Figure 9) supports H2, both leader behaviors influence superiors' PEC-practices, confirming previous findings. By taking the covariance between the two leader behaviors and their impact on the PEC-practices into account, there are significant paths between transactional leadership and subordinates' mood, job satisfaction, quality of work life, and behavioral intentions. These results are in accordance with Model 3, but there seems to be no remaining influence of transactional leadership on colleagues' altruism. Apart from its impact on superiors' positive emotional climate-practices, there is a significant path that leads from superiors' transformational leadership style to colleagues' altruism, in accordance with Model 4. In Model 5, superiors' PEC-practices have a significant influence on subordinates' job satisfaction and affective organizational commitment (cf., Models 3 and 4), and colleagues' altruism (cf., Model 4). Hence, by considering the overall model structure (i.e., all paths), the PEC-practices no longer impact subordinates' quality of work life. Once again, the chi-square test is significant:  $\chi^2$  (21) = 37.588,

p < 0.05, and the CMIN/DF-ratio is acceptable (1.790). The overall fit measures are quite good: TLI = 0.933 and CFI = 0.961. Unfortunately, the RMSEA (0.127) is once again above cut-off. The parameter estimates are reported below (Table 8).

| Parameter       | Path   | Estimate          | <i>S.E.</i> |
|-----------------|--|-------------------|-------------|
| γ11             | Transactional leadership $\rightarrow$ PEC-practices         | .137 <sup>†</sup> | .077        |
| γ <sub>21</sub> | Transactional leadership →Mood                               | .418***           | .064        |
| γ <sub>31</sub> | Transactional leadership $\rightarrow$ Job satisfaction      | .159*             | .073        |
| γ <sub>41</sub> | Transactional leadership $\rightarrow$ Quality of work life  | .476***           | .073        |
| γ61             | Transactional leadership $\rightarrow$ Behavioral intentions | 891***            | .108        |
| γ <sub>12</sub> | Transformational leadership $\rightarrow$ PEC-practices      | .889***           | .077        |
| γ <sub>72</sub> | Transformational leadership →Altruism                        | .944***           | .227        |
| β <sub>31</sub> | PEC-practices $\rightarrow$ Job satisfaction                 | .428***           | .069        |
| β <sub>51</sub> | PEC-practices $\rightarrow$ Affective commitment             | .603***           | .087        |
| β <sub>71</sub> | PEC-practices →Altruism                                      | 628**             | .218        |

Table 8: Maximum likelihood results for Model 5

Notes: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001, <sup>†</sup>p < 0.10 is considered marginally significant

#### Model 6

Instead of treating transactional and transformational leadership as separate constructs, both styles were included as a higher-order construct ( $\alpha = 0.951$ ), as proposed by Podsakoff et al. (1990). *Model 6* started out in exact the same way as *Models 3* and *4* (Figure 5). As mentioned, this time, the exogenous variable was a higher-order construct consisting of superiors' transactional *and* transformational leadership styles. *Model 6* is identified by the *recursive rule* and the *t-rule* (Bollen, 1989). The estimation revealed non-significant paths leading from superiors' leader behaviors to subordinates' affective organizational commitment, and non-significant paths leading from superiors' positive emotional climate-practices to subordinates' mood, quality of work life, and behavioral intentions. The overall chi-square test was significant:  $\chi^2$  (15) = 67.278, p < 0.001. The fit measures indicated a poor model fit: CMIN/DF = 4.485, TLI = 0.730, CFI = 0.855, and RMSEA = 0.267.

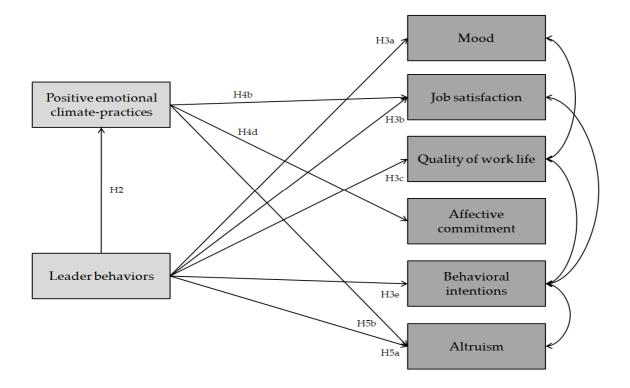


Figure 10: Modified measurement model, Model 6

As with all previous models, *Model 6* was improved in a step-wise process by removing non-significant paths and correlating error terms if necessary. The resulting *Model 6* is once again a SUR model (Figure 10, above). The chi-square test was significant:  $\chi^2$  (15) = 28.267, p < 0.05, and the CMIN/DF-ratio was acceptable (1.884). Apart from a RMSEA which was once again above cut-off (0.134), the fit indices illustrate a model that fits the data quite well: TLI = 0.931 and CFI = 0.963.

Thus, the model with the higher order construct of leader behaviors once again confirms the direct influence on superiors' practices that facilitate a positive emotional climate at work, in support of H2. The combination of leader behaviors also influences subordinates' mood, job satisfaction, quality of work life, and behavioral intentions, in support of H3a, H3b, H3c, and H3e. There are significant paths leading from superiors' positive emotional climate-practices to subordinates' job satisfaction and affective organizational commitment (H4b and H4d). And lastly, leader behaviors and PEC-practices both impact colleagues' altruism (H5a and H5b). Table 9 reports the parameter estimates for *Model 6*.

| Parameter       | Path   | Estimate | <i>S.E.</i> |
|-----------------|--|----------|-------------|
| γ11             | Leader behaviors $\rightarrow$ PEC-practices         | 1.042*** | .058        |
| γ <sub>21</sub> | Leader behaviors $\rightarrow$ Mood                  | .442***  | .068        |
| γ <sub>31</sub> | Leader behaviors $\rightarrow$ Job satisfaction      | .405**   | .134        |
| γ <sub>41</sub> | Leader behaviors $\rightarrow$ Quality of work life  | .531***  | .073        |
| γ61             | Leader behaviors $\rightarrow$ Behavioral intentions | 907***   | .126        |
| γ <sub>71</sub> | Leader behaviors $\rightarrow$ Altruism              | 1.034*** | .243        |
| β <sub>31</sub> | PEC-practices $\rightarrow$ Job satisfaction         | .221*    | .118        |
| β <sub>51</sub> | PEC-practices $\rightarrow$ Affective commitment     | .603***  | .087        |
| β <sub>71</sub> | PEC-practices $\rightarrow$ Altruism                 | 643**    | .215        |

Table 9: Maximum likelihood results for Model 6

Notes: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

To sum up, there are hardly any differences in measures of fit between *Models 5* and *6*. *Model 6* does have a lower significant chi-square which indicates a better overall model fit. But *Model 5* has a lower CMIN/DF-ratio and better RMSEA, although still not acceptable by Browne and Cudeck (1993; cit. in Kaplan, 2000, p. 113f). The overall fit measures (i.e., TLI and CFI) are practically the same for both models. Hence, it seems a question of interpretation which model makes more sense.

### 3.7. Discussion

*Similarities and differences between superiors and subordinates.* The literature review indicated that individuals working in the same environment, will have similar experiences, and will therefore appraise and interpret specific work contexts in a similar way (cf., Schneider & Reichers, 1983). Research also showed, that these perceptions impact important outcomes such as job satisfaction, quality of work life, affective organizational commitment, and behavioral intentions (i.e., turnover) (cf., Parker et al., 2003; Patterson et al., 2005). Moreover, individuals will most likely also share affective states (cf., Barsade, 2000; Kelly & Barsade, 2001).

The present study's results confirmed these assumptions, so that, superiors' appraisals did not differ from subordinates' perceptions. The direction of the influence was not part of the analyses, although it seems likely that employees of a given organization will influence each other mutually. Still, there is evidence that individuals with a higher status such as leaders will influence others more easily (cf., Bono & Ilies, 2006;

Sy, Côté, & Saavedra, 2005), especially by ways of emotional comparison processes (Chapter 2.3.3).

Although the results regarding affective organizational commitment did not reach statistical significance, superiors' commitment level was slightly higher compared to the affective commitment of the subordinates. Subsequent analyses showed that this effect only appeared in the health care company. Although, there were no differences in any of the variables measured concerning the employees of the security or the public service company, we may propose the difference to be the result of hierarchy. The superiors as part of the medium-management level might feel more affectively committed to the company because they represent the company more explicitly than an "average employee", or they could feel more committed by ways of more empowerment and more freedom of action in their daily work.

Another question addressed by the study, was whether superiors' reported use of positive emotional climate-practices would differ significantly from their use reported by the subordinates. The difference was significant. Superiors rated their use of PEC-practices higher than subordinates' perceived them to do so. The difference between superiors' self-report and subordinates' appraisal appeared in the health care business and in the security company sample. Interestingly, there were no differences in the public service company, indicating that superiors' and subordinates' perceptions did not differ significantly. Still, it is not unusual that there are differences between one's self-perception and perception by others. Sometimes, individuals hold a positive illusion of their self (cf., Colvin, Block, & Funder, 1995), or tend to present oneself in a specific way (cf., Asendorpf, 2005).

*Superiors' psychological empowerment.* Psychological empowerment refers to a person's *intrinsic task motivation* (cf., Thomas & Velthouse, 1990), and was assessed by self-report. Individuals form task assessments, a set of cognitions related to a specific task, which are defined in terms of impact, competence, meaningfulness, and choice or self-determination (cf., Spreitzer, 1995; Thomas & Velthouse, 1990). An individual may feel empowered when he or she has the authority or freedom of action to make decisions, when he or she has the knowledge, skills, and competences to make changes and attain goals, and enough drive in order to do so. It is assumed that empowerment can make superiors be more effective and innovative leaders.

Models 1 and 2 were designed to test the effect of superiors' psychological empowerment on their leadership styles and practices, and on follower outcomes. Higher levels of empowerment were hypothesized (H1a) to enable superiors to lead in

a more active style (i.e., more transactional or more transformational), and lower levels of empowerment would lead to a more inactive style (i.e., less transactional or less transformational). Further, it was proposed that psychological empowerment would influence superiors' PEC-practices positively (H1b). Superiors were set as the unit of analysis, and responses by the subordinates were aggregated. The fit measures for Model 1 (with transactional leadership representing the leader behavior) and Model 2 (with transformational leadership representing the leader behavior) indicated that both models did not fit the data, despite significant chi-square tests. In addition, the paths leading from superiors' psychological empowerment to their transactional (Model 1) or transformational (Model 2) leader behaviors, or to their use of practices that facilitate a positive emotional climate at work (both reported by their subordinates) are not significant. Thus, the original model structure which included superiors' psychological empowerment did not yield any support for Hypothesis 1a or 1b.

After a median-split, there was still no change concerning the leader behaviors. Superiors' psychological empowerment did not lead them to use a more or less transactional, or a more or less transformational leadership style. Again, no support for H1a. Interestingly, the analysis provided support for H1b, after splitting the superiors in two groups with respect to empowerment. Superiors who reported feeling more empowered in their work, also reported a higher use of practices that facilitate a positive emotional climate, in comparison to superiors who feel less empowered, and report less use of PEC-practices. Latter findings have to be interpreted with caution since they were conducted with an analysis of variance that does not take into account the impact of other variables proposed in the original model. Secondly, the effect of empowerment on superiors' positive emotional climate-practices vanished when the aggregated responses of the subordinates were used as input for the analyses. However, this could be due to the differences noticed between superiors' self-perceptions and subordinates' report.

In summary, superiors' psychological empowerment did not have the hypothesized impact as implied by the literature review (cf., Martin & Bush, 2006). To the contrary, including the variable into the overall model resulted in bad fit measures and many non-significant paths. There are many possible reasons why psychological empowerment did not work as hypothesized. One reason might be the poor measurement indicated by a very low comparative fit index (CFI = 0.257). Alternatively, the aggregation of subordinates' responses might have caused a loss of

70

substantial information. As a consequence, psychological empowerment was excluded from further analyses.

*Transactional and transformational leader behaviors.* After adapting the unit of analysis to the subordinates, Model 3 was estimated. Transactional leadership represents the leader behaviors in the model. Transactional leader behaviors are defined in terms of transactions based on either reward or sanction (cf., Bass & Riggio, 2006; Podsakoff et al., 1990). The model assessment showed significant paths leading from superiors' transactional leadership style to superiors' practices that facilitate a positive emotional climate at work (H2), and to subordinates' mood (H3a), job satisfaction (H3b), quality of work life (H3c), behavioral intentions (H3e), and colleagues' altruism (H5a). Further, superiors' PEC-practices significantly influenced subordinates' job satisfaction (H4b), quality of work life (H4c), affective organizational commitment (H4d), and subordinates' behavioral intentions (H4e). In contrast, superiors' transactional leadership did not impact subordinates' affective organizational commitment (H3d), and superiors' positive emotional climate-practices had no impact on subordinates' mood at work (H4a) or colleagues' altruism (H5b).

Transactional leadership may be described as outdated (Podsakoff et al., 1990), but it still is a "tool" which fosters many positive follower outcomes such as a positive mood at work, higher job satisfaction and quality of work life, and undermines intentions of quitting.

Transformational leadership represents the leader behaviors depicted in Model 4. These leader behaviors are by definition motivating; followers commit to tasks and achieve goals that exceed their own expectations. Bono and Ilies (2006) illustrate how transformational leaders "recognize the affective and emotional needs and responses of followers, placing more emphasis on the emotional, inspirational, and symbolic aspects of leadership influence" (p. 319). Interestingly, superiors' transformational leadership did not impact subordinates' mood significantly (H3a). Moreover, there were no significant paths between transformational leadership and subordinates' job satisfaction (H3b), quality of work life (H3c), affective organizational commitment (H3d), or behavioral intentions (H3e). In fact, superiors' transformational leadership only had a significant impact on the use of practices that facilitate a positive emotional climate at work (H2), and colleagues' altruism (H5a). This stands in clear contrast to the literature review which painted a very positive picture of transformational leader behaviors as highly influential (cf., Barroso Castro et al., 2008; Bass & Riggio, 2006; Conger, 1999; Conger & Kanungo, 1988b; McColl-Kennedy & Anderson, 2002).

Superiors' positive emotional climate-practices had significant influences on subordinates' job satisfaction (H4b), quality of work life (H4c), affective organizational commitment (H4d), and behavioral intentions (H4e), whereas superiors' practices that facilitate a positive emotional climate at work did not have an impact on subordinates' mood (H4a), all in accordance with Model 3. In contrast to Model 3 however, the PEC-practices did have an impact on colleagues' altruism (H5b). The overall fit measures suggest that the model fits the data quite well.

With respect to the many non-significant paths concerning transformational leadership, one could argue that the PEC-practices may serve as a possible mediator. Podsakoff et al. (1990) for instance, found direct effects of transformational leader behaviors on employee trust, but indirect effects of transformational leadership on employees' organizational citizenship behaviors such as altruism or courtesy (ibid., p. 135).

Separate constructs or higher-order factor. Models 3 and 4 have shown that superiors' leadership styles have differential effects on the subordinates as a group. To examine these influences, Podsakoff et al. (1990) conducted several analyses of individual relationships. However, they combined transactional and transformational leadership in a single higher-order factor to test their overall model. This makes sense as both leadership styles are, most likely, not completely distinct from each other in reality. Models 5 and 6 were estimated in order to examine, whether there is a difference in results when the constructs are analyzed separately, related only by a covariance, representing their mutual dependence, compared to a model which includes both leadership styles as a latent construct. Both models had comparable fit measures which were indicative of a good model fit. Further, both models provided support for H2, both leader behaviors (related by a covariance or forming a single factor) influence superiors' PEC-practices confirming previous findings. Both models also confirm the influence of superiors' positive emotional climate-practices on subordinates' job satisfaction (H4b), affective organizational commitment (H4d), and colleagues' altruism (H5b). Model 6 replicates the findings of Model 5, the higherorder construct "leader behaviors" has an impact on subordinates' mood (H3a), job satisfaction (H3b), quality of work life (H3c), and subordinates' behavioral intentions (H3e), as well as colleagues' altruism (H5a).

In summary, the models including both leader behaviors have a good overall model fit. Both models confirm previous findings but make more sense compared to the previous models, by including both leadership styles into the model structure. Moreover, the leader behaviors are likely to co-exist. Although Model 6 confirms the findings presented before, Model 5 should be favored as it depicts the differential effects of transactional and transformational leadership style on the dependent variables in the model more explicitly.

## **Theoretical contribution**

Present study replicated findings with respect to similar perceptions of the work environment and its influences on individual-level outcomes such as employees' feelings (i.e., mood at work), thoughts and evaluations (i.e., job satisfaction, quality of work like, affective organizational commitment), and workers' behavioral intentions (i.e., turnover). The study also provided evidence for the positivity bias that is likely to occur when superiors evaluate their leader behaviors (PEC-practices) which does not always represent what the followers perceive.

Both leader behaviors (i.e., transactional and transformational) had a strong impact on the positive emotional climate-practices. The PEC-practices were found to influence subordinates' job satisfaction and affective organizational commitment positively. Surprisingly, the positive emotional climate-practices influence the perception of colleagues' altruism negatively (cf. maximum likelihood estimates of Models 2, 4, 5, and 6). It is rather difficult to explain why the practices that facilitate a positive emotional climate at work, defined in terms of superiors trying to be sensitive to employees' emotional needs and encouraging teamwork among the employees, would be negatively related to employees' perceptions of their colleagues' altruism. Further, the use of these PEC-practices did not influence subordinates' mood at work in any of the models. But then again, Ozcelik et al.'s (2008) items for a leader's PEC-practices are a combination of transactional and transformational behaviors, and as such, may result in a non-significant link to subordinates' mood.

Above findings revealed differential effects of the leader behaviors on the dependent variables. Transactional leadership for instance, influenced subordinates' mood, job satisfaction, and quality of work life positively, and subordinates' behavioral intentions negatively, whereas transformational leadership is positively linked to perceptions of colleagues' altruism. We may assume that the influence of transactional leadership is direct, while the transformational style functions rather indirectly. Due to these differential effects, it makes more sense to include both leader behaviors as distinct

constructs which are mutually dependent on each other, rather than treating them as a higher-order factor.

Moreover, as previous studies have been limited to a specific industry or service organization, present study contributes by including several companies from different industries, to validate the propositions of the linkage research model and service-profit chain.

### Managerial contribution

This study provides valuable insights on the role of enabling as opposed to distracting emotional climates in organizations, especially within leader-follower relationships. Businesses exist, thrive, and succeed as a result of the combined effort of employees on many levels. Thus, an important contribution certainly lies in the fact, that participating superiors were employees on a mid-management level. Previous studies on leader behaviors and practices focused solely on company owners or appointed CEO's. However, entrepreneurial success and prosperity are not a single function of company leaders.

It is the job of a leader to manage an organization or business unit, make important strategic decisions, and take on the responsibility for consequences. Further, by taking the perspective of internal marketing, managers ought to view employees as internal customers that have their own set of needs and preferences with respect to a favorable work environment. Present study has provided evidence for the impact a leader has on his or her followers. Hence, another responsibility that leaders have to take on, is the management of their subordinates and as such, the necessity and provision of an enabling, positive climate that will lead to continuous positive appraisals by an employee. Under favorable circumstances, employees will continue to work for an organization, will tend to talk positively about the organization, will work longer hours, and invest time and energy. Employees that are more intrinsically motivated and more satisfied, are also more likely to take on responsibility and be proud to represent an organization. Loyal workers will provide the stability and sustainability of a business.

However, not all leader behaviors are equally effective. The study of the work environment aimed to analyze the effect of leadership styles and leader practices that facilitate a positive emotional climate at work on individual-level outcomes. Thus, a second contribution of the study was to explicitly examine the effects of leaders' behaviors on followers. Superiors (leaders, managers) can actively and effectively achieve positive affectivity (good mood) at work, higher job satisfaction and improve workers' quality of work life, by leading with a transactional leadership style, defined in terms of contingent reward behavior. This entails giving positive feedback or personal compliments when an employee does a better than average job, i.e., acknowledging good performance. It is likely that the induction of positive mood, could also result in higher appraisals of job satisfaction and quality of work life. Isen (2001, p. 81) proposes that the induction of positive mood in employees who interact with customers, could lead to more customer orientation (e.g., improved customer experience, customer satisfaction, and loyalty). Further, transactional leader behaviors account for the behavioral intentions, i.e., employees are less likely to quit their current jobs in the near future.

Transformational leadership on the other hand, seems to be linked to the perception of colleagues' altruism. Thus, there is a relation between followers perceiving their superiors as good models for employees to follow, by viewing them as advocates of collaboration among work groups, or for instance, by observing their consideration of the feelings of others, and employees appraising their co-workers as helpful to others.

Furthermore, leaders' practices that facilitate a positive emotional climate at work have an effect on followers' job satisfaction, affective organizational commitment, and colleagues' altruism. These PEC-practices as defined by Ozcelik et al. (2008) entail a mixture of behaviors that partly apply to transactional (e.g., giving a lot of positive feedback), and partly to transformational leadership (e.g., trying to be sensitive to emotional needs). Interestingly, the positive emotional climate-practices influence employees' affective organizational commitment, which is not influenced by either leadership style in any of the models. Commitment is an important factor with respect to internal marketing. "Affective commitment refers to the degree to which a person identifies with, is involved in, and enjoys membership in an organization. Affective commitment involves belief in and acceptance of the organization's goals and values, and willingness to focus effort on helping the organization achieve its goal, so these feelings and beliefs motivate the employees to achieve that goal through new ways of doing the things" (Jafri, 2010, p. 66). Affectively committed employees believe in an organization, in its goals and in its mission, and are motivated to work harder. Further, committed employees become powerful promoters for the company, by expressing their positive feelings towards the organization to others (cf., image/reputation).

In summary, the findings have shown that superiors (leaders, managers) have the "tools" to influence their subordinates' affective states, job satisfaction, quality of work life, affective organizational commitment, behavioral intentions, and altruism. Consequently, leaders have the opportunity to create influential organizational ambassadors by considering the emotional needs of employees.

#### Limitations

To ensure a greater response rate, anonymity was promised (respondents never stated their names), and to avoid socially desirable responses, items were randomized and reverse-coded items were applied. Unfortunately, however, these procedures do not guarantee authentic responses. In accordance with Martin and Bush (2006), different businesses operative in different industries were used in the sample to avoid a common-source bias. However, the relatively small sample size may possibly be a limitation. In addition, the survey represents a cross-sectional design. So basically, no conclusions with respect to causal effects are valid. However, we may say that the dependent variables can be explained by taking the independent variables into account. And lastly, the revised versions of all models had good fit indices ( $\chi^2$ , CFMIN/DF, TLI, and CFI). The RMSEA never made it below any of the acceptable cut-points defined by Browne and Cudeck (1993). Still, Hu and Bentler (1999) state that the RMSEA tends to overreject models with sample sizes below 250. Thus, above models are acceptable with respect to the other fit measures. Alternatively, it is possible that the study omitted at least one important variable which would have been necessary to represent the data structure better (e.g., circumstances such as freedom of action, or leader's and follower's personality characteristics).

#### **Future research**

Superiors' psychological empowerment was initially included in the overall analysis. However, the overall model fit was very poor and there were hardly any effects with respect to empowerment. Still, psychological empowerment, also referred to as intrinsic task motivation, is a powerful construct which deserves further attention. However, one should consider individual predispositions and environmental factors in order to fully understand what makes empowered leaders prosper and their behavior influential.

Moreover, subordinates' empowerment could also have important effects. It is likely, that empowered leaders will provide their followers with information for their task assessments such as assigning a purpose to a specific task (meaningfulness), providing knowledge and background information to complete a task (competence), or ensuring that their work will be an important contribution for the achievement of goals (impact), and finally, insisting on the fact that employees are responsible for their actions and will be compensated for their time and energy (choice) (Thomas & Velthouse, 1990). Bass and Riggio (2006) propose that leaders may "empower followers to perform their jobs autonomously and creatively and that this empowerment [makes/J.S.] followers feel more efficacious. This in turn leads to both greater follower commitment and to better group performance" (p. 45). Effective leadership should provide the necessary framework for personal growth of employees. Workers need to have access to information, possess the necessary skills and capabilities, and be given enough freedom of action to take on the responsibility for problem solving (Bieger, 2007). Barroso Castro et al. (2008) confirmed that employees' empowerment mediates the relationship between leaders' transformational leadership and followers' job satisfaction, and affective organizational commitment. Moreover, Martin and Bush (2006) found direct effects of empowerment on employees' job performance. Evidence enough, that psychological empowerment needs to be examined more closely.

As the findings showed differential effects for the superiors and subordinates when differentiating between service companies, subsequent studies could examine the hypothesized models again with other organizations, in order to determine, if different business units or branches have specific preferences regarding leadership practices. Consider the work environment in a security company (or, for instance, a hospital). It can be assumed that it is quite different from the work environment in an advertising company (or, for instance, a start-up company of software developers). Employees in a security company might expect and be used to receiving orders from their superiors higher in command, since such organizations tend to have an explicit hierarchical structure (cf., military). Therefore, a transactional leadership style based on reward contingencies, e.g., "My superiors give me special recognition when my work is very good" (cf., Podsakoff et al., 1990), might be more effective than transformational leader behaviors. In contrast, organizations with diffuse or non-salient hierarchies (cf., a start-up company of software developers), where the employees have the same responsibilities, are used to and expect to be part of decisions and be "lead"

participatively, might be more susceptible to transformational leadership styles that take employees' needs into account.

In summary, different situations ask for different leader behaviors, so that, leaders are required to have a portfolio of leadership practices, and have to adapt their behavior depending on the context or desired outcome.

# 4. Emotional Climate in a Service Interaction

Both the service-profit chain and linkage research model propose links between employee satisfaction and loyalty, and customer satisfaction and loyalty (Figure 1 and Figure 2). Since the interaction between a service worker and a customer is traditionally perceived as an important source for the creation of customer value, examining the employee-customer relationship seems essential.

As a consequence, present study was designed to assess the role of an emotional climate in a service interaction. The chapter will begin with a review of the important role of affect in service encounters, before presenting the hypotheses and conceptual model. An experimental approach was chosen. Therefore, information will be given on stimulus development, procedure, and participants. Subsequent chapters are dedicated to the results and discussion thereof.

## 4.1. The role of mood and emotion in service interactions

Friendliness and smiling frequently are considered constitutive elements of the service worker-role. Most front-line employees (i.e., service workers with customer contact) are required to display pleasantness and cheerfulness, whereas few have to display compassion (e.g., funeral directors) or even hostility (e.g., security agent) (cf., Rafaeli & Sutton, 1987). An organization has many rules, regulations and cultures, that shape daily interactions between employees and customers, whereby emotions are used as communication tools. In an interaction, a service worker expresses required emotions, perceives the reaction of his or her counterpart, and adapts his or her emotional display accordingly, and continuously (Rafaeli & Sutton, 1987).

Even though, initially, emotional displays of service workers are part of their work role, and therefore mostly considered as "acting" and "non-genuine", the subsequent reactions of both parties are usually a function of reflex, instinct, and social learning, etc. As elaborated on before (Chapters 2.3.2 and 2.3.3), likely processes of conscious or subconscious emotional transactions are emotional comparison or primitive emotional contagion. Emotional comparison describes the comparison and subsequent conscious adaption of another person's mood or emotion, specifically in situations perceived as ambiguous. The process is more likely when there are affiliation goals, or when the sender has a higher status or is perceived as dominant. Primitive emotional contagion on the other hand, is the subconscious and automatic process of catching

another person's emotive level, based on two mechanisms: imitation and physiological feedback. "Emotional contagion theories suggest that primitive emotional contagion is spurred by the extent to which the sender displays emotions; a greater emotional display by the sender results in higher levels of emotional contagion in the receiver" (Hennig-Thurau et al., 2006, p. 59). Primitive emotional contagion is considered to be more likely between strangers, for instance, between a service worker and a customer.

The influence of perceived authenticity or genuineness of emotional displays has been reported to be an important factor for customers' appraisal of a positive service encounter (cf., Gountas, Ewing, & Gountas, 2007; Hennig-Thurau et al., 2006). Grandey et al. (2005) addressed this issue by examining the influence of authenticity (i.e., deep vs. surface acting). They realized that when customers perceived positive displays to be authentic, their satisfaction regarding service performance was higher. However, Hennig-Thurau et al. (2006) propose that, in the case of primitive emotional contagion between strangers in a service interaction, the extent of smiling might be the only requirement. In comparison, authenticity seems to be an issue when the emotions of the sender are adapted through comparison processes. "When the receiver perceives the sender's emotional display as fake or disingenuous, he or she will not interpret the emotional display as adequate for reducing perceived ambiguity" (Hennig-Thurau et al., 2006, p. 59). Hence, emotional comparison is less likely to occur.

Positive emotional displays of service workers are important and necessary in a personal service interaction, because they are assumed to have positive effects on customers (e.g., higher satisfaction; cf., Söderlund & Rosengren, 2008). However, as part of the work role, and therefore a job requirement, emotional displays are usually referred to as *emotional labor*.

#### **Excursus: Emotional labor**

*Emotional labor* is a multidimensional construct, also known as *employee displayed emotions* (Tsai, 2001), or *employee affective delivery* (Tsai & Huang, 2002). Emotional labor denotes "the effort, planning, and control needed to express organizationally desired emotion during interpersonal transactions" (Morris & Feldman, 1996, p. 987). The concept was originally based on research by Hochschild (1983). The four dimensions are: 1) frequency of emotional display (dependent on work role), 2) attentiveness to required display rules (more attentiveness towards required display rules requires more effort, or labor, i.e.,

duration and intensity of emotional display), 3) variety of emotions desired (dependent on work role and situation, requires more labor), and 4) emotional dissonance (conflict between felt emotions and required displays) (Morris & Feldman, 1996, p. 989ff).

Morris and Feldman (1996) propose that emotional labor can cause distress and have negative effects on the well-being of a service employee. "Emotional exhaustion refers to a state of depleted energy caused by excessive emotional demands made on people interacting with customers and clients" (p. 1002). This "stress-related reaction" has been linked to decreases in productivity, lower job satisfaction, absenteeism, withdrawal behavior and alienation, and burnout. The findings regarding job satisfaction have been inconsistent though. Grandey (2003) follows a more *dramaturgical approach* to service delivery. She differentiates surface acting (i.e., painting on affective displays or faking) from deep acting (i.e., modifying inner feelings to match expressions). The results of her study indicate that surface acting is linked to emotional exhaustion, but deep acting is not. When the individuals tried to modify their inner feelings to match the desired displays, they felt much better, as opposed to faking an emotional expression. "A 'happy worker' may be less likely to need to put on an act with customers" (Grandey, 2003, p. 93). Moreover, it is likely, that there are service workers who "may not find expression of organizationally desired emotion particularly unpleasant" (Morris & Feldman, 1996, p. 1003). When display rules with respect to emotional labor help employees to regulate or modify their behavior in situations perceived as ambiguous, or embarrassing, higher job satisfaction can be expected (Ashforth & Humphrey, 1993; Morris & Feldman, 1996). The concept of emotional labor and employee satisfaction gets even more complex when considering that not only the organization requires specific emotional displays. Customers also expect a lot in a personal service interaction. "This line of research has shown that lower provider satisfaction and long-term work alienation follow when customers' normative expectations of provider responses diverge too much or too often from the response that is naturally induced by the customers' emotion expression and behavior" (Menon & Dubé, 2000, p. 304).

## Consequences of displayed emotions in service interactions<sup>10</sup>

As noted above, the emotional display (emotional behavior) of a service employee can have an impact on customer mood, satisfaction, and customers' service quality appraisals, and finally, on customers' behavioral intentions (cf., Barger & Grandey, 2006; Hennig-Thurau et al., 2006; Pugh, 2001).

Moreover, there are interdependencies among these factors. Through the process of affect infusion (Forgas, 1995), mood becomes part of the evaluative process. "A positive mood is likely to lead to positive reactions and less critical thinking when the appraiser is making quick global judgments" (Barger & Grandey, 2006, p. 1230). As such, positive mood will lead to higher customer satisfaction, more favorable service quality appraisals, and more desirable and less undesirable behavioral intentions (cf., Barger & Grandey, 2006; Hennig-Thurau et al., 2006; Gountas, Ewing, & Gountas, 2007). Conversely, negative mood will lead to lower customer satisfaction, less favorable service quality appraisals, and more undesirable and less desirable behavioral intentions. In addition, customer satisfaction is regarded as a key variable that has an impact on several other variables (Söderlund & Rosengren, 2008). Ranaweera and Prabhu (2003) confirm that "satisfaction has traditionally been regarded as a fundamental determinant of long-term customer behavior. The more satisfied the customers are, the greater is their retention, the positive word-of-mouth (WOM), and ultimately, the financial benefits to the firms who serve them" (p. 82).

Furthermore, Luong (2007) proposes that gender-based stereotypes with respect to the display of emotions exist, that imply an interaction effect. In essence, customers have different notions regarding desired or expected, and undesired or unexpected emotional expressions of female or male service workers. Women, compared to men, are believed to be more emotionally expressive. Thus, for instance, customers expect women to show more signs of friendliness in a service encounter, whereas customers have lower expectations concerning the displays of friendliness by male service workers. Consequently, a female service person will be judged more negatively, when such displays are lacking, whereas a male service worker will be rated more neutrally.

In summary, expressive displays are considered part of the work role, because they are assumed to have a positive impact on customers in a service interaction. The display of positive emotions creates a friendly environment (positive emotional climate), whereas

<sup>&</sup>lt;sup>10</sup> For further reading, please consult: Ashforth and Humphrey (1993), Curtis and Upchurch (2008), Groeppel-Klein and Baun (2001), Mattila and Enz (2002), Menon and Dubé 2000), Rafaeli and Sutton (1987), and Tsai and Huang (2002).

the display of negative emotions creates an unfriendly environment (negative emotional climate). Research has shown that displayed emotions can have strong effects on customers' appraisals and behavioral intentions. It should be a priority to induce positive emotions in customers, which will lead to higher satisfaction ratings. Satisfied customers tend to be loyal to the company, engage in positive word-of-mouth, increase the company's sales, and show other positive behavioral intentions (Bieger, 2007). However, when displaying desired emotions that are in clear contrast to a person's inner feelings or self-concept, this so-called emotional labor can have negative effects on the service worker, and is likely to be perceived negatively by the customer. And lastly, gender effects can be expected with regard to emotional display.

## 4.2. Hypotheses development

*The influence of emotional displays.* As mentioned above, it has already been established, that the display of positive emotions by the service person is likely to lead to positive outcomes (e.g., Hennig-Thurau et al., 2006). But the effects of negative emotional displays have not been examined extensively (cf., Dallimore, Sparks, & Butcher, 2007). Consequently, it is proposed, that negative expressions are likely to create an unfriendly emotional environment, which will have negative outcomes on customers' mood, appraisals, and behavioral intentions.

- H1: Employees' positive emotional displays will lead to an increase in customers' mood, whereas employees' negative emotional displays will lead to a decrease in customers' mood.
- H2: Employees' positive emotional displays will lead to positive appraisals of satisfaction with the service interaction, whereas employees' negative emotional displays will lead to negative appraisals of satisfaction with the service interaction.
- H3: Employees' positive emotional displays will lead to positive appraisals of service quality with the service interaction, whereas employees' negative emotional displays will lead to negative appraisals of service quality with the service interaction.

H4: Employees' positive emotional displays promote more desirable behavioral intentions and less undesirable intentions (a), whereas employees' negative emotional displays promote less desirable behavioral intentions and more undesirable intentions (b).

*The influence of mood*. As discussed extensively in Chapter 2.3.4, an individual's current affectivity has an impact on several processes such as perception, attention, and memory. A person's mood state makes valence-congruent information more salient, and easier to remember. Moreover, as elaborated by Forgas (1995), current affectivity is often used as valid information in judgmental processes. And Isen et al. (1978) showed, that mood influenced subsequent appraisals of satisfaction with goods. On the basis of the literature review, it is proposed that:

- H5: Higher levels of customer mood will be related to higher appraisals of satisfaction with the service interaction, whereas lower levels of customer mood will be related to lower appraisals of satisfaction with the service interaction.
- H6: Higher levels of customer mood will be related to higher appraisals of service quality, whereas lower levels of customer mood will be related to lower appraisals of service quality.
- H7: Higher levels of customer mood will be related to more desirable behavioral intentions and less undesirable intentions (a), whereas lower levels of customer mood will be related to less desirable behavioral intentions and more undesirable intentions (b).

There is evidence that the emotional expression of a service person has an indirect impact on customer appraisals, through customer affect (cf., Pugh, 2001). These mediated influences are not explicitly hypothesized, but will be examined with model estimation.

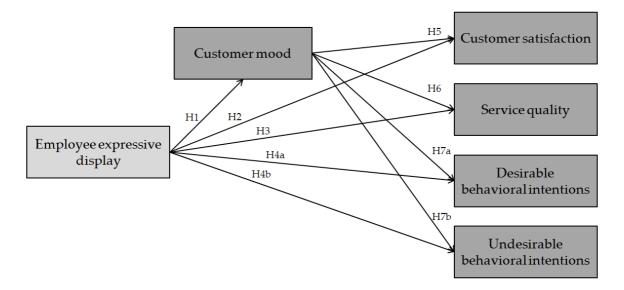


Figure 11: Conceptual model of the hypothesized relationships in a service interaction

## 4.3. Experiment about the emotional climate in a service interaction

To test the assumptions, a 2 x 2 between subjects experimental design was chosen. Each participant was randomly assigned to one of four conditions: positive vs. negative emotional display of the female service person, or positive vs. negative emotional display of the male service person. The setting was a simulated service interaction at "Lingua", a fictitious agency that specializes in language travel. The scenario was chosen for two reasons: 1) travel agencies represent exemplary service companies, and 2) providing quality service in a personal selling environment is crucial for customer retention, especially since much of the travel arrangements are done online nowadays.

Services have a high "person" factor as service is created through interactions between people. Because of the uncertainty of such processes, "testing theories in actual service settings poses real problems because each respondent may have a different set of interactions" (Bateson & Hui, 1992 p. 271). Previous studies have used text-based scenarios (e.g., Söderlund & Rosengren, 2008). But as written scenarios may lack realism, another approach was chosen.

The four experimental conditions were filmed with trained actors. Videos allow for a systematic manipulation of experimental variables and control of confounds (cf., Grandey et al., 2005). Furthermore, video stimuli are perceived as more realistic, authentic and livelier. According to Bateson and Hui (1992), comparable

psychological and behavioral effects can be evoked through video simulation as in actual service settings (e.g., quasi-experimental field studies).

### 4.3.1. Stimuli development

To increase the ecological validity of the video experiment, the author scouted two travel agencies and posed as a prospective client. The script and all materials used in the video were produced on the basis of those experiences. Taping of the service interactions took place in the offices of a design studio in Zurich. No environmental stimuli were necessary as the subject only views the service person in the video. Two trained actors (male and female) were asked to mime travel agents who specialized in language travel. The actors were recruited via a known online platform in the Germanspeaking part of Switzerland (i.e., Ronorp). The actors were informed about the goals of the study, and were given the script two weeks in advance. Before filming, the actors received instructions, and the scenes were rehearsed. During filming, the actress and the actor wore average work clothes, resembling the outfit normally worn by travel agents (i.e., nothing too fancy). The films show the service employees from the waist up. The focal customer (subject) never comes into view, i.e., no face or body is shown, and no voice can be heard. Thus, the interaction was actually filmed as a monologue. In accordance with old silent movies, the customer's responses are presented on a black screen with white text (e.g., "You have not yet thought about where you want to go"). In brief, the travel agent begins the "conversation" by thanking the customer for coming, asking initial questions about the travel destination, checking his or her current language level, and the planned length of stay. After establishing the desired destination, the travel agent provides extended information about few destinations, processes an offer, and lastly, wishes the customer a good day.

### **Experimental manipulations**

As mentioned, Luong (2007) proposes that the gender of the service person has an influence on customers' appraisals of the service interaction. Correspondingly, Fischer, Gainor, and Bristor (1997) found differential effects of participant sex, gender stereotypes, and sex of the service provider on evaluations of service quality. In light of this, the present study aimed at exploring the effects of sex of the service person on subsequent customer appraisals of satisfaction and service quality.

Secondly, the emotional display of the service person was varied. The actors each had to perform the service transaction twice. In the first version, the actors had to perform the scenes displaying positive emotions, and in the second version, they had to maintain a negative emotional display. The actors were given instructions on how to vary their emotional display (Table 10), in accordance with the operationalizations of emotional expressions by other researchers (cf., Ekman, 2007; Hennig-Thurau et al., 2006; Grandey et al., 2005; Ekman et al., 1987).

#### Table 10: Filming instructions

| emotional displays | positive emotions   | negative emotions  |
|--------------------|---|--|
| facial expression  | friendly expression (a lot of smiling), lots of eye contact | slightly irritated or slightly angry<br>expression (no or marginal smiling),<br>barely any eye contact |
| vocal features     | melodious   | monotone   |
| Gesture            | active, (arms open)   | passive, (arms folded)   |
| Posture            | leaning forward, leaning towards customer                   | leaning backward, turning away from customer (in part)   |

To summarize, the customer receives the exact same service (process and output) in all conditions, but the gender of the service person and the emotional display vary (cf., Figure 12). Moreover, it was assumed that there might be interaction effects. For instance, male or female participants might perceive male or female service employees differently in the positive or negative emotions conditions. Furthermore, to avoid biasing the subject's reaction, the focal customer's interaction response was displayed on a black screen. The script can be found in the Appendix (original language).

positive emotions condition - male (PM)



positive emotions condition - female (PF)



Figure 12: Screenshots of the 4 conditions

#### negative emotions condition - male (NM)



negative emotions condition - female (NF)



### 4.3.2. Measures

Most of the scales used in the experiment had originally been developed in English. Analog to the procedure stated in Chapter 3.5.2, the items were translated independently by two doctoral students to ensure semantic correspondence. The few discrepancies were resolved through discussion (cf., Delobbe & Vandenberghe, 2000).

*Mood.* Subjects were asked to state how they felt at the moment. The scale consisted of 4 items that were measured on a five-point continuum ranging from "in a bad mood" to "in a good mood", from "sad" to "happy", from "uncomfortable" to "comfortable", and from "tense" to "calm" (Möll, 2007).

*Satisfaction with the service interaction.* Customer satisfaction was assessed with 4 items. Each item was rated on a seven-point Likert scale ranging from "disagree very strongly" to "agree very strongly".

*Service quality.* To measure customers' appraisal of service quality, an adaption of the SERVQUAL by Parasuraman, Zeithaml, and Berry (1985, 1988, 1991) was used (cf., Pugh, 2001; Gotlieb, Grewal, & Brown, 1994). The SERVQUAL consists of 5 quality dimensions: 1) tangibles (e.g., physical facilities, appearance of personnel), 2) reliability (e.g., the ability to perform the promised service dependably), 3) responsiveness (e.g., willingness to help customers), 4) assurance (e.g., employees' ability to inspire confidence), and 5) empathy (e.g., individualized attention to the customers) (Parasuraman, Zeithaml, & Berry, 1988). The developers state that quality is a comparison between expectation and perception. Thus, in its intended use, every quality dimension is assessed with 4-5 items and rated in relation to a customer's expectation and perception. However, it was just not manageable, let alone economical, to assess one construct with 44 times in total. Rather, 2 items which represent each dimension best were selected in a discussion with a fellow researcher. The remaining items were rated on a seven-point Likert scale ranging from "disagree very strongly" to "agree very strongly".

*Behavioral intentions*. Customers' behavioral intentions were assessed with the Behavioral Intentions Battery by Zeithaml, Berry, and Parasuraman (1996). 13 items were used to assess desired and undesired behavioral outcomes such as: 1) customer loyalty (e.g., to say positive things), 2) switching (e.g., to do less business), 3) price sensitivity (e.g., to pay a higher price), 4) external response (e.g., to complain to other customers), and 5) internal response (e.g., to complain to employees). Subjects rated the items on a seven-point Likert scale ranging from "disagree very strongly".

*Manipulation checks.* Participants were asked how they had experienced the service interaction, and how they would describe the situation's affectivity with 2-4 words.

Demographics. All participants were asked to indicate their gender and date of birth.

## **4.3.3. Pretest**

In order to test the experimental manipulation and applicability of the questionnaire, a pretest was conducted with students of the Executive MBA program at the University of St. Gallen. The experiment was made available online. Participants were randomly assigned to one of four conditions.

Overall, 20 male subjects completed the pretest successfully. The mean age was 39 years (range 29-48 years), and the mean time to complete the survey was 35 minutes. Participants' mood was assessed pre-stimulus, i.e., before showing the stimulus film (Measurement  $t_0$ ). Mood was assessed again with the other dependent variables after the video stimulus (Measurement  $t_1$ ). Unfortunately, many potential participants failed to complete the pretest due to technical problems (e.g., browser, download times, etc.). Thus, no tests of significance were made due to the small sample size. However, the pretest provided valuable insights.

The experimental manipulation seemed to work well for the negative emotions conditions. The female as well as the male service worker were both perceived as "monotone", "unemotional", "indifferent", "boring", and "negative". With respect to the positive emotions conditions, the male service person was described as "interested", "concentrated", and "calm". However, the results of the pretest hinted that the positive manipulation by the female service person might not have worked as intended. The experience of the positive female service worker was described as "matter-of-fact", "dry", "boring", or "mechanical".

Customer mood was initially measured with the "Berliner-Alltagssprachliches-Stimmungs-Inventar" (BASTI) by Schimmack (1997). The BASTI is a self-report scale with 10 dimensions, each represented by two adjectives. Further, the measure consists of 6 items to assess global mood dimensions (Steyer, Schwenkmezger, Notz, & Eid, 1994; cit. in Schimmack, 1997, p. 157). The BASTI was initially used because it was perceived as an advantage to have a reliable, validated scale that had been developed in the German-speaking area (Schimmack, 1997, p. 162). However, the BASTI is quite comprehensive and not economical in combination with several other measures, and interpretation of customer mood proved to be difficult with the BASTI (e.g., it provides an "exit" for participants who do not want to answer single items about their current mood by providing the answer category "not in this state"). As a consequence, results on customer mood were inconclusive. With respect to customer satisfaction, the results show that participants rated their overall satisfaction with the service encounter higher in both the female ( $M_{PF} = 3.65$ , SD = 1.69) and the male positive emotions conditions ( $M_{PM} = 5.13$ , SD = 0.18), in contrast to lower ratings in both the female ( $M_{NF} = 2.05$ , SD = 0.60) and male negative emotions conditions ( $M_{NM} = 2.50$ , SD = 1.18). The pretest further showed, that both the female ( $M_{NF} = 2.81$ , SD = 0.87) and the male negative emotions settings ( $M_{NM} = 2.88$ , SD = 0.73) had lower service quality-ratings, whereas both positive emotions conditions resulted in higher appraisals of service quality ( $M_{PF} = 3.47$ , SD = 1.04, and  $M_{PM} = 4.55$ , SD = 0.00). Both the female and the male negative emotions conditions resulted in higher undesirable behavioral intentions ( $M_{NF} = 4.80$ , SD = 1.02, and  $M_{NM} = 4.33$ , SD = 1.84), and less desirable intentions ( $M_{NF} = 1.89$ , SD = 0.31, and  $M_{NM} = 2.64$ , SD = 1.01). However, there were no noticeable differences in both positive emotions conditions with respect to desirable ( $M_{PF} = 3.93$ , SD = 1.11, and  $M_{PM} = 4.42$ , SD = 0.07) or undesirable behavioral intentions ( $M_{PF} = 3.93$ , SD = 1.11, and  $M_{PM} = 4.67$ , SD = 0.47).

Overall, the findings of the pretest point in the proposed directions regarding customer satisfaction and service quality appraisals, but not necessarily with respect to customer mood, or behavioral intentions. Still, no interpretations should be made prematurely. Only the means and standard deviations are reported here. Due to the rather small sample size, no tests of significance were calculated. Thus, these values do not imply significant differences. Nonetheless, it has to be noted that the female service worker was perceived less positively than expected in the positive emotions condition. Some adjustments were made after analyzing the results of the pretest.

#### Adjustments

The original questionnaire consisted of more items and subjects needed on average 35 minutes to complete the experiment which seemed a bit too excessive. As a consequence, the film sequences were cut, and the questionnaire was shortened. Considering that most studies in this area use very few items to assess mood (cf., Barger & Grandey, 2006; Hennig-Thurau et al., 2006; Tsai & Huang, 2002), the 26 items of the BASTI seemed to overdo it. Thus, the BASTI was dropped from the questionnaire after careful consideration due to its lack of efficiency and simplicity. The decision was confirmed after viewing the number of subjects that dropped out when mood was assessed again post-stimulus. Initially, the entire SERVQUAL had been used to measure service quality. The scale was considered too comprehensive and provided only a marginal value added. In accordance with other studies of the

service encounter, an adaption of the SERVQUAL was used (cf., Gountas & Gountas, 2007; Pugh, 2001; Gotlieb, Grewal, & Brown, 1994). All other measures were administered as originally intended.

### 4.3.4. Principal study

Participants were recruited via known online platforms in the German-speaking part of Switzerland (i.e., Ronorp and Whiteboard), and via emails to students of the Executive MBA program and undergraduate students of the University of St. Gallen. Overall, 99 subjects participated in the online experiment. 50.5% were male and 49.5% were female. The mean age was 31 years (range 20-74 years). With respect to the experimental conditions, participants were distributed as follows:

- negative emotions condition female (NF): 24 subjects (15 male, 9 female)
- positive emotions condition female (PF): 33 subjects (19 male, 14 female)
- negative emotions condition male (NM): 25 subjects (8 male, 17 female)
- positive emotions condition male (PM): 17 subjects (8 male, 9 female)

A chi-square test revealed that there was no significant difference in the proportion of males versus females in the four conditions ( $\chi^2$  (3) = 5.55, n.s.). As mentioned, mood was measured once before showing the video stimulus (t<sub>0</sub>), and was measured again after the film (t<sub>1</sub>). All other dependent variables were measured post-stimulus. Subjects needed on average 24 minutes to complete the survey.

## 4.4. Results

All statistical results of the experiment are stated in chapter 4.4. The descriptive analyses, reliability assessments, analysis of variance (ANOVA), and multivariate analysis of variance (MANOVA) were computed with SPSS 18. The correlations, validity assessments, and estimations to test the overall model were examined with SmartPLS.

#### 4.4.1. Manipulation checks

The manipulation checks consisted of two items. First, participants rated how they had experienced the service interaction, "positive", "neutral", or "negative". Second, subjects were asked to describe the affectivity of the situation with 2-4 words<sup>11</sup>.

Both male service worker conditions were experienced in accordance with the intended manipulation (Table 11). The majority rated the *negative emotions condition-male* quite negatively ( $M_{NM} = 1.32$ , SD = 0.48), whereas the majority in the *positive emotions condition-male* rated the service interaction positively ( $M_{PM} = 2.53$ , SD = 0.62). In the *negative emotions condition*, 8 participants denoted the service interaction as neutral, although they described the situation similar to the majority of the participants who denoted the situation as negative, in accordance with the intended manipulation (cf., Appendix). In the *positive emotions condition*, the majority of the subjects described the service interaction positively, while 6 participants experienced the situation rather neutral. A chi-square test revealed, that the manipulation of positive versus negative emotional display of the male service person worked as planned:  $\chi^2$  (1) = 24.04, p < 0.001 (Fisher's exact test due to sample size; cf., Field, 2009).

|                  | Negative emotions condition-Male | Positive emotions condition-Male |
|------------------|----------------------------------|----------------------------------|
| (1) negative     | 17                               | 1                                |
| (2) neutral      | 8                                | 6                                |
| (3) positive     | 0                                | 10                               |
| Total (subjects) | 25                               | 17                               |

Table 11: Crosstab of the male service worker-condition and interaction experience

Notes: N = 42

As can be seen in Table 12, the majority of the participants clearly experienced the *negative emotions condition-female* rather negatively, in accordance with the intended manipulation ( $M_{NF} = 1.21$ , SD = 0.51). 3 participants denoted the *negative emotions condition-female* as neutral, although they describe experiencing the situation analog to participants which denoted the situation as negative, whereas 1 participant found the same condition (NF) rather amusing and experienced viewing the service interaction as positive (see Appendix).

<sup>&</sup>lt;sup>11</sup> Responses are summarized in the appendix.

|                  | negative emotions condition-female | positive emotions condition-female |
|------------------|------------------------------------|------------------------------------|
| (1) negative     | 20                                 | 6                                  |
| (2) neutral      | 3                                  | 20                                 |
| (3) positive     | 1                                  | 6                                  |
| Total (subjects) | 24                                 | 32                                 |

Table 12: Crosstab of the female service worker-condition and interaction experience

Notes: N = 56 in total, 1 missing in PF condition

Unfortunately, the manipulation failed in the *positive emotions condition-female* ( $M_{PF} = 2$ , SD = 0.62). The majority of the participants perceived the service interaction as neutral rather than positive as intended. When looking at the responses to the question concerning participants experiences of the *positive emotions condition-female*, the manipulation failure becomes apparent (cf., Appendix). 6 participants perceived the positive service interaction as negative and described the service person as boring, unmotivated, stiff, or fake. The majority of the participants in that condition denoted the service interaction as neutral, although their descriptions differ somewhat. Some described the female service worker as boring and unemotional, whereas others described her as friendly and informative. And only 6 participants actually described the service interaction positively.

It was assumed but not explicitly hypothesized that the gender of the service person would have an impact on the evaluations of the service interaction (cf., Fischer, Gainor, & Bristor, 1997). Clearly, the manipulation with regard to the video portraying the positive female service worker did not work as planned. As a consequence, the experimental factor "gender of the service person" could not be examined, and the participants who had viewed the female service person had to be excluded from further analyses.

However, despite the fact that the manipulation did not work as planned, it must be noted, that there was a significant difference between the negative emotions condition and the "neutral" (i.e., positive) emotions condition. A chi-square test<sup>12</sup> revealed a significant difference between the negative condition being perceived as negative, and

<sup>&</sup>lt;sup>12</sup> In most cases, the dependent variable "customer's interaction experience" is metric. The manipulation checks are then conducted with a factorial analysis of variance (cf., Grandey et al., 2005; Söderlund & Rosengren, 2008). Because the dependent variable in this experiment is categorical (non-metric), an analysis of variance was not possible (cf., Hirsig, 1998, p. 5.50).

the positive condition being perceived as neutral:  $\chi^2$  (1) = 9.35, p < 0.01 (i.e., Fisher's exact test due to the small sample size; cf., Field, 2009).

To summarize, the intended manipulation did not work in the female positive emotions condition. The values show that the positive display of the female service worker was mainly perceived as neutral, and equally positive or negative. Still, there was a significant difference between subjects' experience of the neutral (former positive) emotions condition in comparison to the negative emotions condition.

As a possible explanation why the female service person was perceived as neutral in the positive version, can be found in research on the influences of gender. Luong (2007) reports finding differences in evaluations of female and male service workers. "A female service employee who failed to express friendly emotion was evaluated more negatively than a male service employee who similarly failed to express friendly emotion" (p. 109). In essence, women are expected to show more pronounced emotional expressions in comparison to men, especially when their social role as a female service person in the positive stimulus video, failed to meet customers' high expectations of a stereotypical friendly female service worker.

In addition, another small problem arose when testing more assumptions. Statistical analyses are quite limited when groups are unequal. Field (2009) suggests equalizing group size before continuing with the analyses. As a consequence, both groups that had viewed the male service worker were equalized, so that 34 subjects remained in the sample for further analyses. The mean age changed to 33 years, and now ranged from 20 to 61 years. 41.2% of the participants were male, 58.8% female. There was still no significant difference in the proportion of males versus females in the two remaining conditions ( $\chi^2$  (1) = 0.486, n.s.).

#### 4.4.2. Validity and reliability assessment

In accordance with the procedure stated in Chapter 3.6.1, factor analyses were conducted to assess the validity of the scales used in the experiment. In addition, Cronbach's alpha coefficients for internal consistency were calculated to evaluate the reliability of the measures (see Appendix).

The values in the upper half of the diagonal in Table 13 represent the bivariate correlations between the variables measured. Significant values are marked by asterisks. Thus, there were significant positive correlations between mood post-stimulus and customers' satisfaction with the service encounter, appraisals of service quality, and desirable behavioral intentions. In addition, there are significant positive associations between customer satisfaction and service quality, and between service quality and customers' behavioral intentions.

|  | W    | SD   | I | 2      | 3      | 4      | 5     |
|--|------|------|---|--------|--------|--------|-------|
| <i>I Mood t</i> <sub>1</sub> (post-stimulus) | 3.27 | 68.0 |   | .575** | **985  | .451** | 119   |
| 2 Satisfaction                               | 3.65 | 1.85 |   |        | .913** | .920** | 292   |
| 3 Service quality                            | 3.96 | 1.22 |   |        |        | .926** | 463** |
| 4 Desirable behavioral intentions            | 3.23 | 1.59 |   |        |        |        | 461** |
| 5 Undesirable behavioral intentions          | 4.96 | 1.33 |   |        |        |        |       |
|  |      |      |   |        |        |        |       |

Т

Table 13: Means, standard deviations, and bivariate correlations of the measures used in the experiment

Г

Т

Т

Т

Notes:  $N=34,\, {}^{*}p<0.05,\, {}^{**}p<0.01$ 

#### 4.4.3. Hypotheses testing

To test if employees' positive emotional displays lead to an increase of customer mood, or if negative displays lead to a decrease in customer mood (H1), a repeatedmeasures analysis of variance (ANOVA) was conducted (cf., Hennig-Thurau et al., 2006). The ANOVA is based on the normal distribution. Further, the variances in each experimental condition should be homogeneous, and the dependent variable should be metric. "In terms of normality, what matters is that distributions *within groups* are normally distributed" (Field, 2009, p. 359). The Kolmogorov-Smirnov test revealed that normality can be assumed in the *negative emotions condition* with respect to mood pre (D(17) = 0.186, n.s.), and post-stimulus (D(17) = 0.195, n.s.), but not in the *positive emotions condition*, neither pre (D(17) = 0.241, p < 0.01), nor post-stimulus (D(17) = 0.284, p < 0.001). However, according to Field (2009), the F-statistic is robust to normality violations when group size is equal.

With respect to homogeneity of variances, Levene's statistic tests whether the variances of the groups are different. In this case, calculations show that the variances are equal, the assumptions for an ANOVA are met. The within-subjects factor contains two levels: mood pre-stimulus ( $t_0$ ) and mood post-stimulus ( $t_1$ ). The condition (stimulus-video) was used as the between-subjects factor.

|                            | Negative em<br>(NM) | otions condition-Male | Positive emotions condition-Male<br>(PM) |      |
|----------------------------|---------------------|-----------------------|--|------|
|                            | M                   | M SD                  |  | SD   |
| Mood $t_0$ (pre-stimulus)  | 3.66                | 0.84                  | 3.44                                     | 0.66 |
| Mood $t_1$ (post-stimulus) | 3.03                | 1.03                  | 3.51                                     | 0.67 |
| Change in mood             | -0.63               | 0.82                  | 0.07                                     | 0.26 |

Table 14: Influences of emotional displays on customer mood (pre and post-stimulus)

Notes: N = 34, equal group size

Results show that there was a significant within-subjects effect. Overall, there was a change in participants' mood (F (1,32) = 7.162, p < 0.05), and a significant interaction effect of mood and condition (F (1,32) = 11.427, p < 0.01). As a consequence, the repeated measures ANOVA was done for each condition separately. There was no significant change in subjects' mood in the *positive emotions condition*: F (1,16) = 1.342, n.s. In contrast, the *negative emotions condition* clearly resulted in a significant change in mood: F (1,16) = 10.104, p < 0.01 (cf., Figure 3). Thus, H1a, the proposition

that employees' positive emotional displays lead to an increase in customer mood, cannot be supported. However, there is strong support for H1b, which proposes that employees' negative emotional displays lead to a decrease in customer mood.

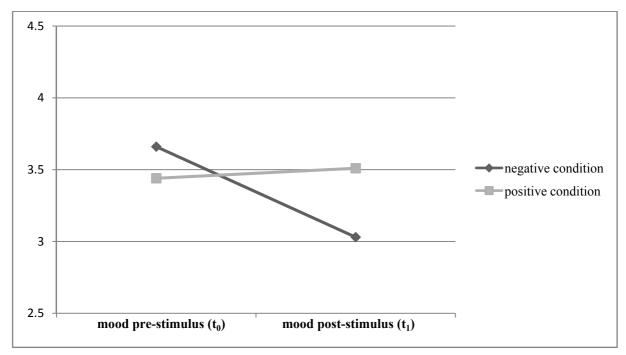


Figure 13: Mean ratings for mood, pre and post-stimulus

## Testing the influences of emotional displays

To test whether the expressive display of the service person has a direct influence on satisfaction with the service interaction, the appraisal of service quality, and on desirable and undesirable behavioral intentions, a multivariate analysis of variance (MANOVA) was calculated. MANOVA simultaneously examines the influences of several dependent variables, and takes the interrelations between the variables into account. MANOVA is not dependent upon the assumption of sphericity, but assumes "that the dependent variables (collectively) have multivariate normality within groups", and assumes homogeneity of the covariance matrices (Field, 2009, p. 603). Multivariate normality cannot be tested with SPSS, but the Kolmogorov-Smirnov test revealed that normality can be assumed for all dependent variables in both experimental conditions. Levene's statistic further showed, that the variances are homogeneous. In preliminary analyses, Box's test of equality of covariance matrices was significant. "The effect of violating this assumption is unclear, except that Hotelling's T<sup>2</sup> is robust in the two-group situation when sample sizes are equal" (Field,

2009, p. 604). After equalizing the groups, Box's test was no more significant, equal covariances can be assumed.

In small samples there is hardly a difference in the multivariate test statistics. Albeit, Bray and Maxwell (1985) state that when group sizes are equal, the Pillai-Bartlett trace is the most robust to violations of assumptions. Using this test statistic, there was a significant effect of condition on the dependent variables, V = 0.627, F (4,29) = 12.205, p < 0.001.

|                             | Negative emotions condition-Male<br>(NM) |      | Positive emotions condition-Male<br>(PM) |      |
|-----------------------------|--|------|--|------|
|                             | M  | SD   | M  | SD   |
| Satisfaction                | 2.59                                     | 1.58 | 4.71                                     | 1.48 |
| Service quality             | 3.08                                     | 0.97 | 4.85                                     | 0.69 |
| Desirable beh. Intentions   | 2.16                                     | 1.09 | 4.39                                     | 1.23 |
| Undesirable beh. intentions | 5.31                                     | 1.12 | 4.94                                     | 1.24 |

Table 15: Influences of emotional displays on the dependent measures in the experiment

Notes: N = 34, equal group size

The results clearly indicate that the positive emotional displays of the male service person resulted in higher satisfaction appraisals of the service interaction, whereas negative emotional displays lead to lower satisfaction ratings (F (1,32) = 16.259, p < 0.001), in support of H2. The MANOVA also provided strong support for H3, which proposes that the display of positive emotions by a service person during an interaction leads to higher perceptions of service quality, whereas negative emotional displays result in more negative service quality appraisals (F (1,32) = 37.576, p < 0.001). The display of positive emotions further leads to more desirable and less undesirable behavioral outcomes (F (1,32) = 31.082, p < 0.001), whereas negative emotional displays by the service person result in less desirable and more undesirable behavioral intentions (F (1,32) = 11.336, p < 0.01), in support of H4a and H4b. For purposes of better comprehensibility, please view the graphs in Figure 14.

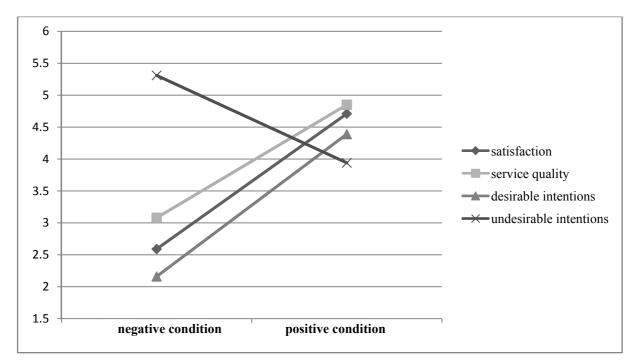


Figure 14: Mean ratings for satisfaction, service quality, and behavioral intentions with respect to condition

## Testing the influences of customer mood

To examine the influence of customer mood (post-stimulus) on appraisals of satisfaction and service quality, as well as on customers' behavioral intentions, a median-split was conducted. Thus, subjects were split into two groups of equal size: negative vs. positive mood. The Kolmogorov-Smirnov test revealed that normality can be assumed for all dependent variables, whether the participants were in a bad or in a good mood. As assumed, the univariate variances are homogeneous. Box's test was not significant, equal covariances can be assumed. Pillai-Bartlett's trace was significant, indicating an effect of mood on the dependent variables, V = 0.297, F(4,29) = 3.064, p < 0.05.

|                             | Negative mood |      | Positive mood |      |
|-----------------------------|---------------|------|---------------|------|
|                             | M             | SD   | M             | SD   |
| Satisfaction                | 2.69          | 1.52 | 4.60          | 1.68 |
| Service quality             | 3.36          | 1.12 | 4.56          | 1.03 |
| Desirable beh. intentions   | 2.56          | 1.30 | 3.99          | 1.60 |
| Undesirable beh. intentions | 4.74          | 1.33 | 4.51          | 1.41 |

Table 16: Influences of customer mood on customer satisfaction, service quality, and behavioral intentions

Notes: N = 34, equal group size

To summarize, there are differences in customers' appraisals and behavioral intentions depending on whether customers are in a good or in a bad mood (see Table 16). To test for significance of differences, a MANOVA was calculated with mood post-stimulus (median-split) as the independent, and customer satisfaction, service quality, and behavioral intentions as dependent variables. As hypothesized, the results clearly indicate that customers in a good mood had higher satisfaction ratings in comparison to customers in a bad mood (F (1,32) = 12.113, p < 0.001), in support of H5. Further, good mood was positively related to higher appraisals of service quality, in support of H6: F (1,32) = 10.420, p < 0.01. As predicted, there was a positive relation between customers' positive mood and desirable behavioral intentions (F (1,32) = 8.128, p < 0.01), in support of H7a. The assumption that customers in a bad mood would have more undesirable behavioral intentions compared to customers in a good mood, could not be supported (H7b): F (1,32) = 0.219, n.s.

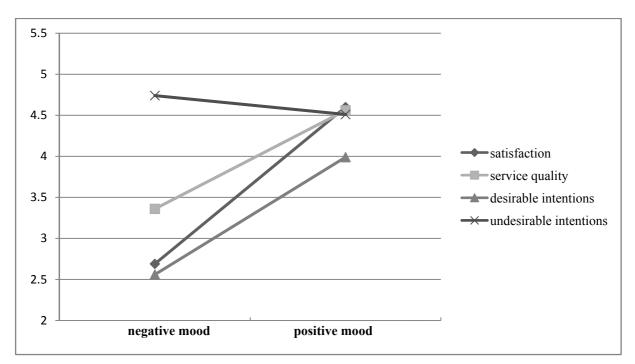


Figure 15: Mean ratings for satisfaction, service quality, and behavioral intentions with respect to mood

In a study by Tidd and Lockard (1978), participants' gender had an impact on their behavior towards a service worker. Therefore, analyses regarding the influences of emotional displays and customer mood, were conducted with respect to subjects' gender (cf., Grandey et al., 2005). However, no significant gender influences (i.e., analysis of variance) were detected in present study.

## Testing the overall model

Partial least squares (PLS) structural equation modeling was used to test the overall model, that takes all paths between the variables into account. PLS is a procedure based on analysis of variance, and as such, allows for the use of nominal data (cf., Hennig-Thurau et al., 2006). In contrast to covariance based structural equation modeling, there are no global measures of fit (cf., Weiber & Mühlhaus, 2010). As a consequence, the assessment is done with respect to the measurement models and the structural model.

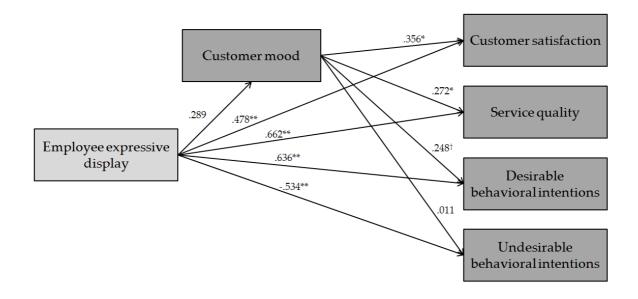


Figure 16: Model of the service interaction with estimated path coefficients

## (1) Examination of the outer model (measurement models)

The measurement models are assessed in terms of reliability and validity. First, the factor loadings of the indicator variables were viewed (see Appendix). Overall, there were relatively high loadings, well above the cut-off ( $\geq 0.4$ ) mentioned by Weiber and Mühlhaus (2010). Further, Cronbach's Alpha shows a high internal consistency of the measurement models ( $\geq 0.70$ ). Composite reliability and average variance extracted (AVE) are measures for convergence validity<sup>13</sup>. The accepted cut-off is 0.60 for both. The values for composite reliability are quite high, in correspondence with their internal consistency. The AVE is satisfactory for customer mood, satisfaction, and for desirable behavioral intentions. However, the values for service quality and undesirable behavioral intentions are marginally below the accepted cut-off.

<sup>&</sup>lt;sup>13</sup> Degree to which a measure is correlated with other measures.

Discriminant validity<sup>14</sup> is assessed with the Fornell/Larcker-criterion (cf., Weiber & Mühlhaus, 2010). To satisfy the condition of discriminant validity, the average variance extracted should be higher than the squared factor correlations. The Fornell/Larcker-criterion is satisfied for customer mood, satisfaction, and undesirable behavioral intentions, but not for service quality or desirable behavioral intentions. Still, overall, reliability and validity are acceptable.

|                             | Cronbach's<br>α | Composite<br>reliability | AVE   | $R^2$ | Communality | $Q^2$ |
|-----------------------------|-----------------|--------------------------|-------|-------|-------------|-------|
| Mood                        | 0.935           | 0.954                    | 0.837 | 0.083 | 0.837       | 0.065 |
| Satisfaction                | 0.979           | 0.984                    | 0.940 | 0.453 | 0.940       | 0.309 |
| Service quality             | 0.923           | 0.963                    | 0.598 | 0.616 | 0.598       | 0.314 |
| Desirable beh. intentions   | 0.967           | 0.972                    | 0.793 | 0.556 | 0.793       | 0.387 |
| Undesirable beh. intentions | 0.763           | 0.849                    | 0.585 | 0.282 | 0.585       | 0.160 |

Table 17: Assessment of measurement models (PLS)

## (2) Examination of the inner model (structural model)

 $R^2$  indicates the degree to which variance is explained by the exogenous variables per latent endogenous variable in the model. Thus, customer satisfaction, service quality, and desirable behavioral intentions are explained quite well by the exogenous variables. Undesirable behavioral intentions is explained moderately, and mood rather poorly. However,  $Q^2$ , the Stone-Geisser-criterion, shows, that all latent exogenous constructs have prognostic relevance (> 0) (cf., Weiber & Mühlhaus, 2010).

Further, the standardized path coefficients indicate the strength of effects, whereas t-values are calculated to assess the significance of paths in the model. Important effects of variables are implied, when path coefficients are larger or equal to 0.2 or rather 0.3 (cf., Chin, 1998), whereas t-values become significant at 1.96 (cf., Weiber & Mühlhaus, 2010). In this procedure, t-tests are calculated through the process of bootstrapping, whereby model parameters are estimated based upon the number of cases in the sample, and a pre-defined number of random samples that are drawn on the basis of the original sample.

<sup>&</sup>lt;sup>14</sup> Degree to which the operationalization diverges from other operationalizations.

|   | t-values          | Total effects |
|---|-------------------|---------------|
| emotional display $\rightarrow$ customer mood               | 1.52              | 0.288         |
| emotional display $\rightarrow$ satisfaction                | 3.06**            | 0.580         |
| emotional display $\rightarrow$ service quality             | 5.55**            | 0.741         |
| emotional display $\rightarrow$ desirable beh. intentions   | 4.62**            | 0.707         |
| emotional display $\rightarrow$ undesirable beh. intentions | 3.56**            | -0.531        |
| customer mood $\rightarrow$ satisfaction                    | 2.20*             | 0.356         |
| customer mood $\rightarrow$ service quality                 | 2.20*             | 0.272         |
| customer mood $\rightarrow$ desirable beh. intentions       | 1.80 <sup>†</sup> | 0.248         |
| customer mood $\rightarrow$ undesirable beh. intentions     | 0.05              | 0.011         |

Table 18: T-values and total effects of the overall model

Notes: N = 34, \*\*p < 0.01, \*p < 0.05, †p < 0.10 is considered marginally significant

In summary, there are significant influential paths leading from a service person's emotional display to customer satisfaction (H2), appraisals of service quality (H3), and a customer's desirable and undesirable behavioral intentions (H4a and H4b). In addition, mood is significantly linked to customer satisfaction and service quality, in support of H5 and H6.

Thus, by taking the overall model structure into account, findings regarding the impact of service workers' emotional displays on customers were confirmed. In addition, the influences of customer mood were also confirmed by assessing the overall model.

# 4.5. Discussion

*Emotional displays and customer mood.* There was strong evidence in support of the assumption that employees' negative emotional displays lead to a decrease in customer mood. In contrast, the proposition that employees' positive emotional displays lead to an increase in customers' mood, could not be supported, in contrast to a previous study by Hennig-Thurau et al. (2006). Presumably, it takes more to make a positive change in customer mood than just a few smiles and a lot of eye contact, etc.

Several authors advocate the importance of genuineness with respect to positive emotional displays (cf., Gountas, Ewing, & Gountas, 2007; Grandey et al., 2005). Present study did not assess how subjects had perceived authenticity. Instead, customers' experience of the service interaction was examined. After reviewing customers' perceptions and descriptions of the experienced service interaction, the

conclusion seems likely, that the emotional displays in the positive condition did not enhance participants' positive feelings (i.e., no change in customer mood pre-stimulus vs. post-stimulus). In contrast, the display of negative emotions seems to lead directly to a decrease in customer mood. To date, there is no evidence, whether authenticity also has an influence in the case of negative emotional displays. It seems likely, that negative emotions might always be perceived as authentic, since there seems no logical explanation why a service person would show negatively valenced emotions without a specific reason. Thus, future research could therefore assess, whether negative emotional displays are also mediated by authenticity perceptions. Inauthentic negative displays, a very unfriendly waiter in a Parisian restaurant might for instance be perceived as "funny", and lead to positive appraisals, because tourists may have a specific stereotype of rude Parisian waiters and expect to be treated badly, whereas inappropriate negative displays, e.g., pretending to be compassionate when something bad has happened, will probably result in negative appraisals.

*Emotional displays, customer appraisals and customers' behavioral intentions.* The results confirmed the assumption, that positive expressions by service workers lead to higher appraisals of satisfaction and service quality, and promote desirable behavioral intentions such as customer loyalty, the intention to pay a higher price for the service, and continue doing business with the service provider. After viewing positive emotional displays of the service person, subjects were also less in favor of undesirable intentions such as complaining to other customers. Analyses further showed, that when negative emotions had been displayed, customers' appraisals of satisfaction and service quality was lower, and customers were less likely to engage in desirable behavioral intentions, and more likely to favor undesirable behaviors. Present study provides strong proof for the direct influence of employees' emotional displays on a combination of important dependent variables.

Thus, the mere use of positive emotive expressions by service workers, such as frequent smiles and eye-contact, speaking with an elated voice, and leaning towards the customer, leads to higher appraisals, and more desirable than undesirable behavioral intentions of customers. In contrast, when customers are confronted with negative emotional displays, their ratings and behavioral intentions are influenced negatively.

*Customer mood, appraisals and customers' behavioral intentions.* Analyses showed significant influences of current customer mood levels on satisfaction with the service encounter, service quality, and behavioral intentions. In summary, positive mood was associated with higher levels of customer satisfaction and higher ratings of service quality, and furthermore, positive mood promoted the intention to recommend the service company to friends and other acquaintances, or to do more business with the organization (i.e., desirable behaviors). Negative mood states were linked to lower customer satisfaction, lower ratings of service quality, and consequently, less desirable behavioral intentions.

Thus, in accordance with the affect-as-information theory (cf., Schwarz & Clore, 1983; Forgas, 1995), present study confirms the proposition that customers tend to take their current mood state into account during an evaluative process.

# Theoretical contribution

Present study used an experimental design to assess the influences of emotional displays and customer mood. The manipulation was done with video simulation, which is relatively new in this area of research (cf., Grandey et al., 2005). Most studies have used written scenarios, which have a lower ecological validity as opposed to film stimuli. Therefore, present study contributes by using a procedure that has been confirmed to be perceived as more realistic.

Moreover, emotional display was operationalized more broadly. Present study defined emotional display in terms of facial expression, vocal features, gesture, and posture. Previous studies have only focused on the extent of smiling (cf., Hennig-Thurau et al. 2006), or smiling and eye-contact (cf., Pugh, 2001).

Furthermore, previous studies have focused on the influence of more or less positive displays, with few exceptions (cf., Dallimore, Sparks, & Butcher, 2007). Present study included the expression of negative emotions, which had a prominent impact on customers. The negative displays portrayed in the video lead to a significant negative mood change, whereas the positive displays did not lead to a positive mood change. Thus, it seems likely, that positive displays have a direct positive influence on customers, whereas the impact of negative emotions is more complex. Negative displays of service workers do not only lead to lower appraisals and unfavorable behavioral intentions, but also lead to negative affect in customers, which promotes even more negative outcomes.

The study contributes in the field of examining several important outcomes at once. Previous studies have provided evidence for only one or two outcome variables (cf., Grandey et al., 2005; Tsai & Huang, 2002; Pugh, 2001). By conducting multivariate analysis of variance and model estimation, evidence was found, that the emotional display of the service person has a significant impact on more than one or two outcome variables, and further, by taking the influences of customer mood into account.

## Managerial contribution

From a managerial perspective, the findings of this study have a number of implications for services where delivery success is dependent on the employeecustomer interaction. Above findings provide strong support for the emphasis on and the requirement of positive emotional displays of service employees when in direct customer contact, because the mere use of positive expressions leads to desirable outcomes on customer side. Emotional display was defined in terms of facial expressions, vocal features, gesture, and posture. Positive emotions were induced through smiles, lots of eye-contact, a melodious tone of voice, active gestures, and a forward lean of trunk. Displaying friendliness by the service worker creates a positive, pleasant environment for the customer, who then wants to reciprocate this feeling with smiles, courtesy, and positive word-of-mouth. The customer further wants to reinforce the positive experience by returning to the store frequently, and consequently, by spending money. Thus, desired impacts on organizational level can be expected.

Attention should be given to the expressions of negative emotions, because present study showed that they are just as influential. Negative emotions were displayed by ways of a slightly irritated or annoyed facial expression, a monotone voice, folded arms, and a backward lean of trunk. Negative displays lead to pronounced negative effects such as lower customer satisfaction and lower ratings of service quality. In addition, negative emotional expressions of service workers provoke more undesirable, and less desirable behavioral intentions of customers. Thus, negative displays create an unpleasant emotional climate for customers that will result in loss of business. Customers will tend to complain about the service provider and will start to consider switching to a competitor.

Moreover, there was a significant impact of emotional display on customer mood. When the service person portrayed negative emotional expressions such as a decreased amount of eye-contact, infrequent smiles, or leaned away from the customer, the focal customer's mood state post-encounter was lower than before the service interaction. Thus, service workers are able to influence customers on an affective level (i.e., mood induction). Enhanced attention should be devoted to this prominent influence as customer affect was significantly associated with several outcomes on customer side, and as such, confirms that current affect is included in evaluative processes as proposed by several theories. In these cases, "feelings take on monetary worth because customer's ... mood states often influence their future behavioral intentions" (Fox, 2001; cit. in Mattila & Enz, 2002, p. 274).

In summary, the high person factor in personal service transactions should not be underestimated, as it allows for a positive or negative Halo effect. Mere displays of positive emotionality (i.e., smiles) promote higher satisfaction and service quality ratings, and favorable behavioral intentions. However, as easily as smiles can evoke positive outcomes in a counterpart, negative displays will lead to negative appraisals. Even neutral facial expressions may sometimes be perceived and interpreted as negative emotional displays, and may lead to unfavorable ratings by the customer. Thus, in order for a service provider to be successful, it is essential to give customers reason for continuous positive appraisals. Only then will customers return to the store, talk positively about the service provider to peers, and possibly spend more money, or excuse service delivery failures.

However, the required displays of emotions should be considered as emotional labor which can lead to negative outcomes for the service person, if the expressed emotions differ from the inner, felt emotions (i.e., emotional dissonance). Thus, managers should pay attention to the gap between work role requirements and employee affect, and to the amount of effort a service person has to bring up to express specific emotions, when the gap is large. Consequently, it is assumed, that employees will be more likely to portray positive emotional displays when working for a company that has an enabling, positive emotional climate, whereas negative emotional work environments will foster negative emotional displays of service workers, or demand higher levels of effort to show positive emotional expressions, which is likely to result in lower employee satisfaction and promote work alienation.

## Limitations

Participation was anonymous and relied on subjects' interest in the topic. Thus, there might be a possible self-selection-bias. Moreover, the relatively small sample size could be a limitation. In addition, a video experiment is not able to imitate a real-life interaction, since there is no possibility to include interactive behavior. In order to do so, one would have to assess customer actions and reactions with role play. However, this would not allow for a strict control of external variables, and it would be impossible to gather data from larger samples. Furthermore, the interactions could not be generalized. Fortunately, video stimuli have been linked to high ecological validity in contrast to written scenarios, therefore their use seems justifiable.

## **Future research**

As the manipulation did not work with respect to the female service worker, it remains to be examined, if there are differential effects concerning the gender of the service person, as proposed by Luong (2007). Further, it might be interesting to examine, if customers are conscious of the emotional valence and impact of servicescapes, which is the working environment for service employees and the shopping environment for customers at the same time. And if they are conscious of employees' emotional labor, as to whether high levels of labor, and consequently, lower employee satisfaction, also have influences on customers' appraisals of the service encounter.

# 5. General discussion

The literature review revealed the existence of linkages between leadership, employee and customer results, and consequently, impacts on organizational-level (Chapter 2). Thus, management has begun to focus on both the employee (i.e., internal customer) and the (external) customer to ensure greater satisfaction and loyalty on both sides, through internal and external service quality. Desired employee results are a function of leadership practices, and human resource management practices (e.g., employee training), that help provide a favorable work environment which promotes employee satisfaction, commitment, and loyalty. In a favorable or enabling environment, an employee feels welcome, supported, and empowered. He or she possesses the required skills and/or is trained to do the job, is provided with access to information, is given enough freedom of action, and receives the responsibility of goal attainment. Moreover, happier employees will be more likely to invest time and energy to achieve organizational goals and engage in favorable organizational citizenship acts.

Customer satisfaction is defined as the result of continuous appraisals of product or service offerings. Positive appraisals can be achieved through a friendly and responsive service provider, and high levels of service quality. Quality is the result of a comparison between expectation and experience. Thus, when services exceed customers' expectations, higher levels of quality perceptions are achieved. Over time, customer satisfaction will lead to customer loyalty. Loyal customers have a strong intention to make repeated purchases and engage in positive word-of-mouth. Thus, it is necessary to provide continuous positive experiences to customers.

Climates were introduced as perceptions of a given environment. Many climates may exist within an organization, and they are relatively stable over time. Climates are in fact defined in terms of individuals' descriptions of work experiences. However, people working in the same environment will have similar experiences, and will therefore appraise and interpret specific work contexts in a similar way. The study regarding the work environment in a service organization provided support for these assumptions. Leaders' appraisals did not differ from subordinates' perceptions. Moreover, there is evidence that these shared perceptions have a variety of meaningful effects on individual, group, or organizational level. Positive enabling climates can lead to higher employee satisfaction and productivity, more efficient teamwork, and better organizational performance. Further, although affect is a crucial part of life, and individuals' current mood state or emotive level plays an important role in daily interactions between people, research on emotional climates is scarce. Thus, this dissertation is in essence a reminder of the important influences of moods and emotions, and a proposal for the existence of emotional climates.

Emotional climates are of atmospherical or experiential nature. It is proposed that these climates are created through daily interactions between people, wherein emotional displays are used as tools for communication, and individuals become engaged in cyclical emotional relationships. Furthermore, emotional climates are conceptualized as individual-level perceptions, but it is likely that individuals in the same setting will have a high agreement on its quality, valence or intensity. An emotional climate will be relatively stable over time, but can be influenced and changed by individuals. Individuals high in emotional expressivity are more likely to influence others, whereas others are more emotionally susceptible. Other factors include an individual's status or prominence in a given environment. And finally, with respect to the social constructionist perspective, an emotional climate is largely based on choosing a referent. Therefore, emotional climate dimensions may differ with respect to the special focus.

To contribute in closing the gap between what is known regarding the influential power of affect, and measuring outcomes of shared climate perceptions, present work aimed at investigating the influence of emotional climates in the context of leader-follower relationships, and employee-customer relationships.

The survey with respect to the work environment in a service company dealt with leader behaviors defined in terms of transactional and transformational leadership, and leader practices that foster a positive emotional climate at work (Chapter 3). Overall, the survey provided strong evidence that leader behaviors have an important impact on follower outcomes. In summary, transactional leaders can actively promote positive mood at work in followers, higher job satisfaction and quality of work life, and undermine intentions of quitting. Transformational leadership had a significant impact on employees' ratings of colleagues' altruism, while leaders' positive emotional climate practices influenced multiple employee outcomes, such as job satisfaction, quality of work life, affective organizational commitment, behavioral intentions, and colleagues' altruism.

Thus, the study showed, that these leader behaviors are mutually dependent on each other, and have differential effects on afore mentioned individual-level outcomes. Consequently, it seems likely, that different situations ask for different leader behaviors, so that, leaders are required to have a portfolio of leadership practices, and have to adapt their behavior depending on the context or desired outcome. Leadership practices that are agreeable with employees' current emotional needs, will lead to increased mood at work, higher job satisfaction and quality of work life, higher levels of affective organizational commitment and promote favorable organizational citizenship behaviors such as altruism. Moreover, significant negative impacts on turnover can be expected.

The experiment was designed to induce emotional climates of positive or negative valence through displays of emotion to test the strength and direction of influences on service customers (Chapter 4). The results of the study confirmed the proposition that positive expressive displays lead to higher satisfaction and service quality ratings, and promote more desirable behavioral intentions such as the intention to continue or even do more business with a service provider. The positive displays of the service worker furthermore, lead to less intentions regarding undesirable behavior such as negative word-of-mouth. In contrast, negative emotional expressions were related to lower satisfaction and service quality, less desirable and more undesirable behavioral intentions. In addition, customers experienced a negative change in mood while watching the negative emotions condition. This represents a very important finding of the study. Thus, while positive displays are expected, the actual portrayal does not lead to a positive mood change in the focal customer. Negative emotional displays however, are probably not expected, so, viewing a service person that portrays negative emotions leads to a significant negative change in mood.

Moreover, customers' positive mood lead to higher levels of satisfaction and service quality, and increased desirable behavioral intentions, whereas negative mood was associated with lower levels of customer satisfaction and service quality, and provoked less desirable behavioral intentions.

To summarize, present work contributed by providing evidence to some of the links hypothesized by the linkage research model and the service-profit chain. Namely, leader behaviors and practices that consider employees' emotional needs have a meaningful impact on employees' appraisal of their work environment. Above findings ascribe more meaningfulness to transactional leader behaviors defined in terms of contingent reward behavior (e.g., commending employees, etc.), in contrast to previous studies. Similarly, present work attenuates the highly regarded influence of transformational behaviors, as this leadership style only influenced one dependent variable. The positive emotional climate-practices however, that are operationalized as a combination of different leader behaviors that also pertain to transactional and transformational leadership, were also very influential. Consequently, in order to lead effectively, managers should use different leader behaviors that take environmental issues (i.e., situation), and employees' needs (i.e., person) into account.

In addition, there is evidence that customers will be influenced by the behavior of service workers. In short, there were direct influences of positive emotional displays which lead to positive outcomes, and direct influences of negative expressions that provoked negative outcomes. Moreover, customers' mood levels had an impact on subsequent evaluative processes.

Still, leaders should be attentive with respect to the concept of emotional labor, whereby negative outcomes for the service person are assumed, if the required emotional displays differ to much from the inner, felt emotions (i.e., emotional dissonance). It is proposed that happy employees will be more likely to portray positive emotional displays when working for a company that has a positive emotional climate, whereas negative emotional work environments will foster negative emotional displays of service workers, or demand higher levels of effort to show positive emotional expressions, which is likely to result in lower employee satisfaction, absenteeism, and turnover.

Present work relies on data that was collected using a cross-sectional design. Therefore, the effects of a time delay remain to be examined with longitudinal data. Still, on the basis of this dissertation's findings and the information gathered from the literature review, links between the leader-follower relationship, and the employee-customer relationship should be drawn. Effective leaders that use a combination of behaviors considerate of situational and personal needs, can promote positive emotional climates and foster employee satisfaction, which is likely to result in loyalty. Happy, committed employees will be more engaging at work, and will be able to display positive emotions towards a customer, which will create a friendly, inviting climate, within which a personal service interaction takes place. Consequently, customers' positive experience will result in higher appraisals, higher satisfaction, and in time, customer loyalty.

# References

- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior, 10*, 123-167.
- Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103 (3)*, 411-423.
- Argyle, M. & Dean, J. (1965). Eye-contact, distance, and affiliation. Sociometry, 28, 289-304.
- Ashforth, B. E. & Humphrey, R. H. (1993). Emotional labor in service roles: The influence of identity. *Academy of Management Review, 18 (1),* 88-115.
- Asendorpf, J. B. (2005). Psychologie der Persönlichkeit (3. Aufl.). Heidelberg: Springer.
- Bagozzi, R. P., Gopinath, M. & Nyer, P. U. (1999). The Role of Emotions in Marketing. Academy of Marketing Science, 27 (2), 184-206.
- Baker, J. (1986). The role of the environment in marketing services: The consumer perspective. In J. A. Cecil et al. (Eds.), *The Services Challenge: Integrating for Competitive Advantage* (pp. 79-84). Chicago (IL): American Marketing Association.
- Bambauer-Sachse, S. & Gierl, H. (2009). Can a positive mood counterbalance weak arguments in personal sales conversations? *Journal of Retailing and Consumer Services*, *16*, 190-196.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84 (2), 191-215.
- Barger, P. B. & Grandey, A. A. (2006). Service with a smile and encounter satisfaction: Emotional contagion and appraisal mechanisms. *Academy of Management Journal*, 49 (6), 1229-1238.
- Barroso Castro, C., Villegas Periñan, M. M., & Casillas Bueno, J. C. (2008). Transformational leadership and followers' attitudes: the mediating role of psychological empowerment. *The International Journal of Human Resource Management, 19 (10)*, 1842-1863.
- Barsade, S. G. (2000). *The ripple effect: Emotional contagion in groups*. Working Paper 98, Yale School of Management, Yale University, New Haven, CT.
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47, 644-675.
- Bass, B. M. (1985). Leadership and performance beyond expectations. New York: Free Press.
- Bass, B. M. & Riggio, R. E. (2006). *Transformational leadership*. Mahwah (NJ): Lawrence Erlbaum Associates.
- Bateson, J. E. G. & Hui, M. K. (1992). The ecological validity of photographic slides and videotapes in simulation the service setting. *Journal of Consumer Research, 19 (3)*, 271-281.
- Berkowitz, L., Schrager, S. M. & Dunand, M. A. (2006). Shared suffering can mitigate aversively-generated aggression: On the role of the target's stimulus characteristics. *Aggressive Behavior, 32 (1),* 80-87.
- Bieger, T. (2007). Dienstleistungs-Management. Einführung in Strategien und Prozesse bei Dienstleistungen (4. Aufl.). Bern: Haupt.

Birbaumer, N. & Schmidt, R. F. (1996). Biologische Psychologie (3. Aufl.). Berlin: Springer.

- Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, 56 (2), 57-71.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.
- Bono, J. E. & Ilies, R. (2006). Charisma, positive emotions and mood contagion. *The Leadership Quarterly*, 17, 317-334.
- Bower, G. H. & Cohen, P. R. (1982). Emotional influences in memory and thinking: data and theory. In M. S. Clark & S. T. Finke (Eds.), *Affect and Cognition* (pp. 291-331). Hillsdale (NJ): Lawrence Erlbaum.
- Bougie, R., Pieters, R. & Zeelenberg, M. (2003). Angry customers don't come back, they get back: The experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science*, *31* (4), 377-393.
- Browne, M. & Cudeck, R. (1993). Alternative ways of assessing equation model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Newbury Park (CA): Sage.
- Brundin, E., Patzelt, H. & Shepherd, D. A. (2008). Managers' emotional displays and employees' willingness to act entrepreneurially. *Journal of Business Venturing*, 23, 221-243.
- Burke, M. J., Borucki, C. C. & Hurley, A. E. (1992). Reconceptualizing psychological climate in a retail service environment: A multiple-stakeholder perspective. *Journal of Applied Psychology*, 77 (5), 717-729.
- Burke, M. J., Borucki, C. C. & Kaufman, J. D. (2002). Contemporary perspectives on the study of psychological climate: A commentary. *European Journal of Work and Organizational Psychology*, 11 (3), 325-340.
- Butts, M. M., Vandenberg, R. J., DeJoy, D. M., Schaffer, B. S., & Wilson, M. G. (2009). Individual reactions to high involvement work processes: Investigating the role of empowerment and perceived organizational support. *Journal of Occupational Health Psychology*, 14 (2), 122-136.
- Buunk, B. P. (1996). Affiliation, zwischenmenschliche Anziehung und enge Beziehungen. In
  W. Stroebe, M. Hewstone & G. M. Stephenson (Hrsg.), *Sozialpsychologie. Eine Einführung* (3. Aufl.) (S. 363-393). Berlin: Springer.
- Cacioppo, J. T. & Petty, R. E. (1984). The elaboration likelihood model of persuasion. *Advances in Consumer Research, 11 (1)*, 673-675.
- Campbell, J. P., Dunnette, M. D., Lawler, E. E. III., & Weick, K. E. (1970). *Managerial behavior, performance, and effectiveness*. New York: McGraw-Hill.
- Chaiken, S. (1982). *The heuristic/systematic processing distinction in persuasion*. Paper presented at the Symposium on Automatic Processing, Society for Experimental Social Psychology, Nashville, IN (USA).
- Chin, W. W. (1998). Issues and opinion on structural equation modeling. *Management Information Systems Quarterly*, 22, 7-16.
- Christianson, S.-A., Loftus, E. F., Hoffman, H. & Loftus, G. R. (1991). Eye fixations and memory for emotional events. *Journal of Experimental Psychology*, 17 (4), 693-701.

- Colvin, C. R., Block, J., & Funder, D. C. (1995). Overly positive self-evaluations and personality: Negative implications for mental health. *Journal of Personality and Social Psychology, 68 (6)*, 1152-1162.
- Conger, J. A. (1999). Charismatic and transformational leadership in organizations: An insider's perspective on these developing streams of research. *The Leadership Quarterly*, *10 (2)*, 145-179.
- Conger, J. A. & Kanungo, R. N. (1988a). The empowerment process: Integrating theory and practice. *Academy of Management Review, 13 (3)*, 471-482.
- Conger, J. A. & Kanungo, R. N. (1988b). Behavioral dimensions of charismatic leadership. In J. A. Conger, R. N. Kanungo and Associates (Eds.), *Charismatic leadership* (S. 78-97). San Francisco (CA): Jossey-Bass Inc.
- Curtis, C. R. & Upchurch, R. S. (2008). A case study in establishing a positive service culture: Attachment and involvement in the workplace. *Journal of Retail & Leisure Property*, 7 (2), 131-138.
- Dallimore, K. S., Sparks, B. A. & Butcher, K. (2007). The influence of angry customer outbursts on service providers' facial displays and affective states. *Journal of Service Research*, 10 (1), 78-93.
- Dasborough, M. T. & Ashkanasy, N. M. (2002). Emotion and attribution of intentionality in leader-member relationships. *The Leadership Quarterly*, 13, 615-634.
- Delobbe, N. & Vandenberghe, C. (2000). A four-dimensional model of organizational commitment among Belgian employees. *European Journal of Psychological Assessment, 16 (2)*, 125-138.
- Ekman, P. (2007). *Gefühle lesen. Wie Sie Emotionen erkennen und richtig interpretieren.* Heidelberg: Spektrum Akademischer Verlag.
- Ekman, P., Friesen, W. V., O'Sullivan, M., Chan, A., Diacoyanni-Tarlatzis, I., Heider, K., Krause, R., LeCompte, W. A., Pitcairn, T., Ricci-Bitti, P. E., Scherer, K., Tomita, M. & Tzavaras, A. (1987). Universals and cultural differences in the judgments of facial expressions of emotion. *Journal of Personality and Social Psychology*, 53 (4), 712-717.
- Ekman, P., Friesen, W. V. & Tomkins, S. S. (1971). Facial Affect Scoring Technique: A first validity study. *Semiotica*, 3 (1), 37-58.
- Epstude, K. & Mussweiler, T. (2009). What you feel is how you compare: How comparisons influence the social induction of affect. *Emotion*, 9 (1), 1-14.
- Erb, H.-P. & Kruglanski, A. W. (2005). Persuasion: Ein oder zwei Prozesse? Zeitschrift für Sozialpsychologie, 36 (3), 117-131.
- Evans, I. M., Harvey, S. T., Buckley, L. & Yan, E. (2009). Differentiating classroom climate concepts: academic, management, and emotional environments. *Kõtuitui: New Zealand Journal of Social Sciences Online, 4*, 131-146.
- Ezeh, C. & Harris, L. C. (2007). Servicescape research: a review and a research agenda. *The Marketing Review*, *7* (1), 59-78.
- Feshbach, N. D. & Roe, K. (1968). Empathy in six- and seven-year-olds. *Child Development*, 39 (1), 133-145.
- Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-140.
- Field, A. (2009). Discovering Statistics using SPSS (3rd ed.). London: Sage.

- Fischer, E., Gainer, B. & Bristor, J. (1997). The sex of the service provider: Does it influence perceptions of service quality? *Journal of Retailing*, *73 (3)*, 361-382.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin, 117 (1),* 39-66.
- Forgas, J. P. & Bower, G. H. (1987). Mood effects on person-perception judgments. *Journal* of Personality and Social Psychology, 53 (1), 53-60.
- Fox, S. (2001). Emotional value: Creating strong bonds with your customers. *Personnel Psychology*, *54* (1), 230-234.
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*, 53 (8), 1027-1055.
- Gotlieb, J. B., Grewal, D. & Brown, S. W. (1994). Consumer satisfaction and perceived quality: complementary or divergent constructs? *Journal of Applied Psychology*, 79 (6), 875-885.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25 (2), 161-178.
- Gountas, S., Ewing, M. T. & Gountas, J. I. (2007). Testing airline passengers' responses to flight attendants' expressive displays: The effects of positive affect. *Journal of Business Research*, 60, 81-83.
- Grandey, A. A. (2003). When "the show must go on": Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of Management Journal, 46 (1),* 86-96.
- Grandey, A. A., Fisk, G. M., Mattila, A. S., Jansen, K. J. & Sideman, L. A. (2005). Is "service with a smile" enough? Authenticity of positive displays during service encounters. *Organizational Behavior and Human Decision Processes*, 96, 38-55.
- Groeppel-Klein, A. & Baun, D. (2001). The role of customers' arousal for retail stores -Results from an experimental pilot study using electrodermal activity as indicator. *Advances in Consumer Research, 28 (1)*, 412-419.
- Gross, J. J. & John, O. P. (1998). Mapping the domain of expressivity: Multimethod evidence for a hierarchical model. *Journal of Personality and Social Psychology*, 74 (1), 170-191.
- Gump, B. B. & Kulik, J. A. (1997). Stress, affiliation, and emotional contagion. *Journal of Personality and Social Psychology*, 72 (2), 305-319.
- Hareli, S. & Rafaeli, A. (2008). Emotion cycles: on the social influence of emotion in organizations. *Research in Organizational Behavior*, 28, 35-59.
- Hartje, W. & Poeck, K. (2002). Klinische Neuropsychologie (5. Aufl.). Stuttgart: Thieme.
- Hatfield, E., Cacioppo, J. T. & Rapson, R. L. (1992). Primitive emotional contagion. In M. S. Clark (Ed.), *Emotion and Social Behavior* (pp. 151-177). London: Sage.
- Hatfield, E., Cacioppo, J. T. & Rapson, R. L. (1993). Emotional Contagion. Current Directions in Psychological Science, 2 (3), 96-99.
- Hatfield, E., Cacioppo, J. & Rapson, R. L. (1994). *Emotional contagion*. New York: Cambridge University Press.

- Hatfield, E., Hsee, C. K., Costello, J., Weisman, M. S. & Denney, C. (1995). The impact of vocal feedback on emotional experience and expression. *Journal of Social Behavior and Personality*, 10 (2), 293-312.
- Hennig-Thurau, T., Groth, M., Paul, M. & Gremler, D. D. (2006). Are all smiles created equal? How emotional contagion and emotional labor affect service relationships. *Journal of Marketing*, *70*, 58-73.
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E. (Jr.) & Schlesinger, L. A. (1994). Putting the service-profit chain to work. *Harvard Business Review*, 72 (2), 164-170.
- Hightower, R. (2003). Framework for managing the servicescape: a sustainable competitive advantage. *Marketing Management Journal, 13 (2)*, 84-95.
- Hirsig, R. (1998). Statistische Methoden in den Sozialwissenschaften. Band 1 (2. Aufl.). Zürich: Seismo Verlag.
- Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. Berkeley: University of California Press.
- Homburg, C. & Baumgartner, H. (1995). Beurteilung von Kausalmodellen. Marketing ZFP, 17 (3), 162-176.
- Homburg, C., Wiesecke, J. & Hoyer, W. D. (2009). Social identity and the service-profit chain. *Journal of Marketing*, 73, 38-54.
- Hu, L. & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6 (1), 1-55.
- Isen, A. M. (2001). An influence of positive affect on decision making in complex situations: theoretical issues with practical implications. *Journal of Consumer Psychology*, 11 (2), 75-85.
- Isen, A. M., Clark, M., Shalker, T. E. & Karp, L. (1978). Affect, Accessibility of Material in Memory, and Behavior: A Cognitive Loop? *Journal of Personality and Social Psychology*, 36 (1), 1-12.
- Jafri, M. H. (2010). Organizational commitment and employee's innovative behavior. *Journal* of Management Research, 10 (1), 62-68.
- James, W. (1884). What is an emotion? Mind, 9 (34), 188-205.
- Johnson, S. K. (2008). I second that emotion: Effects of emotional contagion and affect at work on leader and follower outcomes. *The Leadership Quarterly*, 19, 1-19.
- Jones, T. O. & Sasser, W. E. (1995). Why satisfied customers defect. *Harvard Business Review*, 73 (6), 88-99.
- Kaplan, D. (2000). Structural Equation Modeling. Thousand Oaks (CA): Sage.
- Kelly, J. R. & Barsade, S. G. (2001). Mood and emotions in small groups and work teams. *Organizational Behavior and Human Decision Processes*, *86 (1)*, 99-130.
- Kendon, A. (1970). Movement coordination in social interaction: Some examples described. *Acta Psychologica*, *32*, 101-125.
- Klem, C. & Schlechter, A. F. (2008). The relationship between leader emotional intelligence and psychological climate: An exploratory study. South African Journal of Business Management, 39 (2), 9-23.
- Kotler, P. (1973). Atmospherics as a Marketing Tool. Journal of Retailing, 49 (4), 48-64.

- Koys, D. J. & DeCotiis, T. A. (1991). Inductive measures of psychological climate. *Human Relations*, 44 (3), 265-285.
- Kulik, J. A., Mahler, H. I. M. & Earnest, A. (1994). Social comparison and affiliation under threat: Going beyond the affiliate-choice paradigm. *Journal of Personality and Social Psychology*, 66 (2), 301-309.
- Kulik, J. A., Mahler, H. I. M. & Moore, P. J. (1996). Social comparison and affiliation under threat: Effects on recovery from major surgery. *Journal of Personality and Social Psychology*, 71 (5), 967-979.
- Lemmergaard, J. & Lauridsen, J. (2008). The ethical climate of danish firms: a discussion and enhancement of the ethical-climate model. *Journal of Business Ethics, 80 (4)*, 653-675.
- Litwin, G. H. & Stringer, R. A. (1968). *Motivation and organization climate*. Boston: Division of Research. Harvard Business School.
- Lodge, M. & Taber, C. (2000). Three steps toward a theory of motivated political reasoning. In A. Lupia, M. McCubbins & S. Popkin (Hrsg.), *Elements of Political Reason: Understanding and Expanding the Limits of Rationality* (S. 183-213.). London: Cambridge University Press.
- Luong, A. (2007). Gender and the underexpression of friendliness in the service context. Journal of Management & Organization, 13 (2), 102-113.
- Mackie, D. M., Asuncion, A. G. & Rosselli, F. (1992). The impact of positive affect on persuasion processes. In M. S. Clark (Ed.), *Emotion and Social Behavior* (pp. 247-270). London: Sage.
- Marquart-Pyatt, S. (2010). *Simultaneous Equations*. Presentation slides from the workshop on simultaneous equations at the Inter-University Consortium for Political and Social Research (ICPSR), Ann Arbor (MI, USA).
- Martin, C. A. & Bush, A. J. (2006). Psychological climate, empowerment, leadership style, and customer-oriented selling: an analysis of the sales manager-salesperson dyad. *Journal of the Academy of Marketing Science*, *34* (*3*), 419-438.
- Matarazzo, J. D., Weitman, M., & Saslow, G. (1968). Interview content and interviewee speech durations. *Journal of Clinical Psychology*, 19 (4), 463-472.
- Mattila, A. S. & Enz, C. A. (2002). The Role of Emotions in Service Encounters. *Journal of* Service Research, 4 (4), 268-277.
- Mayer, J. D., Caruso, D. & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27 (4), 267-298.
- Mayer, J. D. & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York: Basic Books.
- McColl-Kennedy, J. R. & Anderson, R. D. (2002). Impact of leadership style and emotions on subordinate performance. *The Leadership Quarterly*, 13, 545-559.
- McElroy, J. C. & Morrow, P. C. (2010). Employee reactions to office redesign: A naturally occurring quasi-field experiment in a multi-generational setting. *Human Relations, 63 (5)*, 609-636.
- Mehrabian, A. (1968). Inference of attitudes from the posture, orientation, and distance of a communictor. *Journal of Consulting and Clinical Psychology, 32 (3)*, 296-308.

- Mehrabian, A. & Friar, J. T. (1969). Encoding of attitude by a seated communicator via posture and position cues. *Journal of Consulting and Clinical Psychology*, 33 (3), 330-336.
- Menon, K. & Dubé, L. (2000). Ensuring greater satisfaction by engineering salesperson response to customer emotions. *Journal of Retailing*, 76 (3), 285-307.
- Meyer, J. P. & Allen, N. J. (1997). Commitment in the workplace: theory, research and application. Thousand Oaks: Sage.
- Meyer, J. P., Paunonen, S. V., Gellatly, I. R., Goffin, R. D., & Jackson, D. N. (1989). Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology*, 74 (1), 152-156.
- Meyer, W.-U., Reisenzein, R. & Schützwohl, A. (2001). *Einführung in die Emotionspsychologie. Band I. Die Emotionstheorien von Watson, James und Schachter.* Bern: Huber.
- Miller, N. & Zimbardo, P. (1966). Motives for fear-induced affiliation: Emotional comparison or interpersonal similarity? *Journal of Personality*, *34* (4), 481-503.
- Möll, T. (2007). Messung und Wirkung von Markenemotionen: Neuromarketing als neuer verhaltenswissenschaftlicher Ansatz. Wiesbaden: Deutscher Universitäts-Verlag.
- de Montmollin, M. (1975). Taylorism and anti-taylorism. International Studies of Management and Organization, 5 (3), 4-15.
- de Montmollin, G. (1977). *L'influence sociale. Phénomènes, facteurs et théories.* Paris: Presses Universitaires de France.
- Morris, J. A. & Feldman, D. C. (1996). The Dimensions, Antecedents, and Consequences of Emotional Labor. *Academy of Management Review, 21 (4)*, 986-1010.
- Morris, J. P., Squires, N. K., Taber, C. S. & Lodge, M. (2003). Activation of political attitudes: A psychophysiological examination of the hot cognition hypothesis. *Political Psychology*, *24* (4), 727-745.
- Muchinsky, P. M. (1976). An assessment of the Litwin and Stringer Organizational Climate Questionnaire: an empirical and theoretical extension of the Sims and LaFollette study. *Personnel Psychology*, 29, 371-392.
- Neumann, R. (2006). Emotionale Ansteckung. In H.-W. Bierhoff & D. Frey (Hrsg.), *Handbuch der Sozialpsychologie und Kommunikationspsychologie* (S. 510-514). Bern: Hogrefe.
- Neumann, R. & Strack, F. (2000). "Mood contagion": The automatic transfer of mood between persons. *Journal of Personality and Social Psychology*, 79 (2), 211-223
- Öhman, A., Flykt, A. & Esteves, F. (2001). Emotion drives attention: Detecting the snake in the grass. *Journal of Experimental Psychology: General, 130 (3)*, 466-478.
- Opoku, R. A., Atuobi-Yiadom, N., Chong, C. S., & Abratt, R. (2009). The impact of internal marketing on the perception of service quality in retail banking: A Ghanaian case. *Journal of Financial Services Marketing*, 13 (4), 317-329.
- O'Toole, R. & Dubin, R. (1968). Baby feeding and body sway: An experiment in George Herbert Mead's "Taking the Role of the Other". *Journal of Personality and Social Psychology*, 10 (1), 59-65.

- Otto, J. H., Euler, H. A. & Mandl, H. (2000). Begriffsbestimmungen. In J. H. Otto, H. A. Euler & H. Mandl (Hrsg.), *Emotionspsychologie. Ein Handbuch* (S. 11-18). Weinheim: Psychologie Verlags Union.
- Ozcelik, H., Langton, N. & Aldrich, H. (2008). Doing well and doing good. The relationship between leadership practices that facilitate a positive emotional climate and organizational performance. *Journal of Managerial Psychology*, *23* (2), 186-203.
- Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49 (4), 41-50.
- Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64 (1), 5-6.
- Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67 (4), 420-450.
- Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacost, H. A. & Roberts, J. E. (2003). Relationships between psychological climate perceptions and work outcomes: a meta-analytic review. *Journal of Organizational Behavior*, 24, 389-416.
- Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L. & Wallace, A. M. (2005). Validating the organizational climate measure: links to managerial practices, productivity, and innovation. *Journal of Organizational Behavior, 26 (4)*, 379-408.
- Pauli, P. & Birbaumer, N. (2000). Psychophysiologische Ansätze. In J. H. Otto, H. A. Euler & H. Mandl (Hrsg.), *Emotionspsychologie. Ein Handbuch* (S. 75-84). Weinheim: Psychologie Verlags Union.
- Payne, R. L. & Pugh, S. S. (1976). Organizational structure and organizational climate. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago: Rand Mc Nally College Pub.
- Perren, S., González, T., Muñoz, P. S. & Spiess, J. K. (2005). Lebensqualität von pflegenden Angehörigen: Selektion von individuell bedeutsamen Lebensbereichen als Adaptionsprozess. In A. Wettstein, M. König, R. Schmid & S. Perren (Hrsg.), *Belastung und Wohlbefinden bei Angehörigen von Menschen mit Demenz. Eine Interventionsstudie* (S. 107-118). Zürich: Verlag Rüegger
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H. & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1 (2), 107-142.
- Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. Academy of Management Journal, 44 (5), 1018-1027.
- Rafaeli, A. & Sutton, R. I. (1987). Expression of emotion as part of the work role. *Academy of Management Review, 12 (1),* 23-37.
- Ranaweera, C. & Prabhu, J. (2003). On the relative importance of customer satisfaction and trust as determinants of customer retention and positive word of mouth. *Journal of Targeting, Measurement and Analysis for Marketing, 12 (1),* 82-90.
- Reisenzein, R., Meyer, W.-U. & Schützwohl, A. (2003). *Einführung in die Emotionspsychologie. Band III. Kognitive Emotionstheorien.* Bern: Huber.
- Rheinberg, F. (2000). Motivation (3. Aufl.). Stuttgart: Kohlhammer.

- Roelen, C. A. M., Koopmans, P. C. & Groothoff, J. W. (2008). Which factors determine job satisfaction? *Work, 30*, 433-439.
- Rosenthal, R. (1991). *Meta-analytic procedures for social research* (2<sup>nd</sup> Ed.). Newbury Park (CA): Sage.
- Rutherford, B., Boles, J., Hamwi, G. A., Madupalli, R. & Rutherford, L. (2009). The role of the seven dimensions of job satisfaction in salesperson's attitudes and behaviors. *Journal of Business Research*, 62, 1146-1151.
- Schachter, S. (1959). The psychology of affiliation. Stanford (CA): University Press.
- Schein, E. H. (1992). Organizational Culture and Leadership (2<sup>nd</sup> Ed.). San Francisco: Jossey-Bass.
- Schein, E. H. (2000). Sense and nonsense about culture and climate. In N. M. Ashkanasy, C. P. M. Wilderom & M. F. Peterson (Eds.), *Handbook of Organizational Culture & Climate* (pp. xxiii-xxx). Thousand Oaks: Sage.
- Scherer, K. R. (1996). Emotion. In W. Stroebe, M. Hewstone & G. M. Stephenson (Hrsg.), *Sozialpsychologie. Eine Einführung* (3. Aufl.) (S. 293-330). Berlin: Springer.
- Schimmack, U. (1997). Das Berliner-Alltagssprachliche-Stimmungs-Inventar (BASTI): Ein Vorschlag zur kontentvaliden Erfassung von Stimmungen. *Diagnostica*, 43 (2), 150-173.
- Schlesinger, L. A. & Heskett, J. L. (1991). The service-driven service company. *Harvard Business Review*, 69 (5), 71-81.
- Schmidt-Atzert, L. (1996). Lehrbuch der Emotionspsychologie. Stuttgart: Kohlhammer.
- Schneider, B. (1975). Organizational climates: an essay. Personnel Psychology, 36, 19-36.
- Schneider, B. (1983). Work climates: An interactionist perspective. In N. W. Feimer & E. S. Geller (Eds.), *Environmental psychology: Directions and perspectives*. New York: Praeger.
- Schneider, B. & Bartlett, C. J. (1968). Individual differences and organizational climate: 1. The research plan and questionnaire development. *Personnel Psychology*, *21*, 323-333.
- Schneider, B. & Bartlett, C. J. (1970). Individual differences and organizational climate: 2. Measurement of organizational climate by the multi-trait, multi-rater matrix. *Personnel Psychology*, 23, 493-512.
- Schneider, B., Bowen, D. E., Ehrhart, M. G. & Holcombe, K. M. (2000). The climate for service. In N. M. Ashkanasy, C. P. M. Wilderom & M. F. Peterson (Eds.), *Handbook of* Organizational Culture & Climate (pp. 21-36). Thousand Oaks: Sage.
- Schneider, B., Ehrhart, M. G., Mayer, D. M., Saltz, J. L. & Niles-Jolly, K. (2005). Understanding organization-customer links in service settings. *Academy of Management Journal*, 48 (6), 1017-1032.
- Schneider, B., Parkington, J. J. & Buxton, V. M. (1980). Employee and customer perceptions of service in banks. *Administrative Science Quarterly*, 25 (2), 252-267.
- Schneider, B. & Reichers, A. E. (1983). On the etiology of climates. *Personnel Psychology*, *36*, 19-39.
- Schneider, B., Wheeler, J. K. & Cox, J. F. (1992). A passion for service: Using content analysis to explicate service climate themes. *Journal of Applied Psychology*, 77 (5), 705-716.

- Schneider, B., White, S. S. & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Test of a causal model. *Journal of Applied Psychology*, 83 (2), 150-163.
- Schwarz, N. & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45 (3), 513-523.
- Schwarz, N. & Clore, G. L. (2003). Mood as information: 20 years later. *Psychological Inquiry*, 14 (3&4), 296-303.
- Sedikides, C. (1992). Mood as a determinant of attentional focus. *Cognition and Emotion, 6* (2), 129-148.
- Sims, H. P., & LaFollette, W. (1975). An assessment of the Litwin and Stringer Organizational Climate Questionnaire. *Personnel Psychology*, 28, 19-38.
- Smith, A. K. & Bolton, R. N. (2002). The effect of customers' emotional responses to service failures on their recovery effort evaluations and satisfaction judgments. *Journal of the Academy of Marketing Science*, 30 (1), 5-23.
- Söderlund, M. & Rosengren, S. (2007). Receiving word-of-mouth from the service customer: An emotion-based effectiveness assessment. *Journal of Retailing and Consumer Services*, *14 (2)*, 123-136.
- Söderlund, M. & Rosengren, S. (2008). Revisiting the smiling service worker and customer satisfaction. *International Journal of Service Industry Management, 19 (5)*, 552-574.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *The Academy of Management Journal, 38 (5)*, 1442-1465.
- Stel, M., van Dijk, E. & Olivier, E. (2009). You want to know the truth? Then don't mimic! *Psychological Science*, 20 (6), 693-699.
- Stel, M. & van Knippenberg, A. (2008). The role of facial mimicry in the recognition of affect. *Psychological Science*, 19 (10), 984-985.
- Stepper, S. & Strack, F. (1993). Proprioceptive determinants of emotional and nonemotional feelings. *Journal of Personality and Social Psychology, 64 (2)*, 211-220.
- Steyer, R., Schwenkmezger, P., Notz, P. & Eid, M. (1994). Testtheoretische Analysen des Mehrdimensionalen Befindlichkeitsfragebogens. *Diagnostica*, 40, 320-328.
- Strack, F., Martin, L. L. & Stepper, S. (1988). Inhibiting and facilitating conditions of the human smile: A nonobtrusive test of the facial feedback hypothesis. *Journal of Personality and Social Psychology*, 54 (5), 768-777.
- Strutton, D., Pelton, L. E. & Lumpkin, J. R. (1993). The relationship between psychological climate and salesperson-sales manager trust in sales organizations. *The Journal of Personal Selling & Sales Management*, 13 (4), 1-14.
- Sy, T., Côté, S. & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology*, *90* (2), 295-305.
- Taber, C. S., Lodge, M. & Glathar, J. (2001). The motivated construction of political judgments. In J. H. Kuklinski (Hrsg.), *Citizens and politics. Perspectives from Political Psychology* (S. 198-226). Cambridge: Cambridge University Press.

- Tel, S. A. (1989). The reciprocation of smiling. *The Journal of Social Psychology, 129 (5)*, 711-712.
- Thomas, K. W. & Velthouse, B. A. (1990). Cognitive elements of empowerment: an "interpretive" model of intrinsic task motivation. *The Academy of Management Review*, 15 (4), 666-681.
- Tidd, K. L. & Lockard, J. S. (1978). Monetary significance of the affiliative smile: A case for reciprocal altruism. *Bulletin of the Psychonomic Society*, *11 (6)*, 344-346.
- Tiedens, L. (2000). Stereotypes about sentiments and status: Emotional expectations for high and low status group members. *Personality and Social Psychology Bulletin, 26 (5)*, 560-574.
- Tsai, W.-C. (2001). Determinants and consequences of employee displayed positive emotions. *Journal of Management*, 27, 497-512.
- Tsai, W.-C. & Huang, Y.-M. (2002). Mechanisms linking employee affective delivery and customer behavioral intentions. *Journal of Applied Psychology*, 87 (5), 1001-1008.
- Van Laar, D., Edwards, J. A. & Easton, S. (2007). The work-related quality of life scale for healthcare workers. *Journal of Advanced Nursing*, *60 (3)*, 325-333.
- Vaughan, K. B. & Lanzetta, J. T. (1980). Vicarious instigation and conditioning of facial expressive and autonomic responses to a model's expressive display of pain. *Journal of Personality and Social Psychology*, 38 (6), 909-923.
- von Avermaet, E. (1996). Sozialer Einfluss in Kleingruppen. In W. Stroebe, M. Hewstone & G. M. Stephenson (Hrsg.), *Sozialpsychologie. Eine Einführung* (3. Aufl.) (S. 503-544). Berlin: Springer.
- Wakefield, K. L. & Blodgett, J. G. (1994). The importance of servicescapes in leisure service settings. *Journal of Services Marketing*, 8 (3), 66-76.
- Wakefield, K. L. & Blodgett, J. G. (1996). The effect of the servicescape on customers' behavioral intentions in leisure service settings. *Journal of Services Marketing*, 10 (6), 45-61.
- Wei, F., Yuan, X., & Di, Y. (2010). Effects of transactional leadership, psychological empowerment and empowerment climate on creative performance of subordinates: A cross-level study. *Frontiers of Business Research*, 4 (1), 29-46.
- Weiber, R. & Mühlhaus, D. (2010). Strukturgleichungsmodellierung. Eine anwendungsorientierte Einführung in die Kausalanalyse mit Hilfe von AMOS, SmartPLS und SPSS. Heidelberg: Springer.
- Wiesecke, J., Ahearne, M., Lam, S. K., & van Dick, R. (2009). The role of leaders in internal marketing. *Journal of Marketing*, 73 (2), 123-145.
- Wiley, J. W. & Brooks, S. M. (2000). The high-performance organizational climate. In N. M. Ashkanasy, C. P. M. Wilderom & M. F. Peterson (Eds.), *Handbook of Organizational Culture & Climate* (pp. 177-191). Thousand Oaks: Sage.
- Wood, J. V., Saltzberg, J. A., Neale, J. M., Stone, A. A. & Rachmiel, T. B. (1990). Selffocused attention, coping responses, and distressed mood in everyday life. *Journal of Personality and Social Psychology*, 58 (6), 1027-1036.

- Yee, R. W. Y., Yeung, A. C. L., Cheng, T. C. E. & Lai, K.-H. (2009). The service-profit chain: A review and extension. *Total Quality Management & Business Excellence, 20 (6)*, 617-632.
- Yukl, G. A. (1989). Leadership in Organizations. Englewood Cliffs (NJ): Prentice Hall.
- Zeithaml, V. A., Berry, L. L. & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60, 31-46.
- Zhang, J. Q., Dixit, A., & Friedmann, R. (2010). Customer loyalty and lifetime value: An empirical investigation of consumer packaged goods. *Journal of Marketing Theory and Practice*, 18 (2), 127-139.
- Zimbardo, P. & Formica, R. (1963). Emotional comparison and self-esteem as determinants of affiliation. *Journal of Personality*, 31 (2), 141-162.
- Zohar, D. (2002). The effects of leadership dimensions, safety climate, and assigned priorities on minor injuries in work groups. *Journal of Organizational Behavior, 23 (1)*, 75-92.

# Appendix 1: Scales used (Survey)

## Psychological empowerment (Spreitzer, 1995):

AVE: 0.545, CFI: 0.257 Scale reliability (12 items):  $\alpha = .850$ 

| ID     | Scale - Construct         | Item   |
|--------|---------------------------|--|
| PEmp01 | PEmp - Meaning            | The work I do is very important to me.                             |
| PEmp02 | PEmp - Meaning            | My job activities are personally meaningful to me.                 |
| PEmp03 | PEmp - Meaning            | The work I do is meaningful to me.                                 |
| PEmp04 | PEmp - Competence         | I am confident about my ability to do my job.                      |
| PEmp05 | PEmp - Competence         | I am self-assured about my capabilities to perform my work         |
|        |                           | activities.  |
| PEmp06 | PEmp - Competence         | I have mastered the skills necessary for my job.                   |
| PEmp07 | PEmp - Self-Determination | I have significant autonomy in determining how I do my job.        |
| PEmp08 | PEmp - Self-Determination | I can decide on my own how to go about doing my work.              |
| PEmp09 | PEmp - Self-Determination | I have considerable opportunity for independence and freedom in    |
|        |                           | how I do my job.   |
| PEmp10 | PEmp - Impact             | My impact on what happens in my department is large.               |
| PEmp11 | PEmp - Impact             | I have a great deal of control over what happens in my department. |
| PEmp12 | PEmp - Impact             | I have significant influence over what happens in my department.   |

## Leadership style (Podsakoff et al., 1990):

AVE for transformational leadership: 0.828, CFI: 0.945 AVE for transactional leadership: 0.796, CFI: 0.953 Scale reliability for transformational leadership (8 items):  $\alpha = .941$ Scale reliability for transactional leadership (5 items):  $\alpha = .898$ Scale reliability for leader behaviors (13 items):  $\alpha = .951$ 

| ID     | Scale - Construct             | Item  |
|--------|-------------------------------|---|
| LS04   | Transformational LS - Model   | My superiors lead by "doing" rather than simply by "telling".       |
| LS05   | Transformational LS - Support | My superiors show respect for my personal feelings.                 |
| LS06   | Transformational LS - Model   | My superiors provide a good model for me to follow.                 |
| LS07   | Transformational LS - Support | My superiors behave in a manner thoughtful of my personal needs.    |
| LS12   | Transformational LS - Group   | My superiors foster collaboration among work groups.                |
| LS17   | Transformational LS - Group   | My superiors encourage employees to be team players.                |
| LS20   | Transformational LS - Group   | My superiors get the group to work together for the same goal.      |
| LS21   | Transformational LS - Model   | My superiors lead by example.                                       |
| LS24   | Transactional LS - CR         | My superiors always give me positive feedback when I perform well.  |
| LS25   | Transactional LS - CR         | My superiors give me special recognition when my work is very good. |
| LS26   | Transactional LS - CR         | My superiors commend me when I do a better than average job.        |
| LS27   | Transactional LS - CR         | My superiors personally compliment me when I do outstanding work.   |
| LS28_r | Transactional LS - CR         | My superiors frequently do not acknowledge my good performance.     |

# Positive emotional climate-Practices (Ozcelik et al., 2008):

*AVE:* 0.858, *CFI:* 0.989 *Scale reliability (5 items):* α = .932

| ID    | Scale - Construct | Item  |
|-------|-------------------|---|
| PEC01 | PEC               | I / My superiors try to be sensitive to employees' emotional needs.   |
| PEC02 | PEC               | I / My superiors try to create a positive climate between co-workers. |
| PEC03 | PEC               | I / My superiors give a lot of positive feedback.                     |
| PEC04 | PEC               | I / My superiors encourage teamwork among the employees.              |
| PEC06 | PEC               | I/My superiors reward employees who take special initiative.          |

#### Mood at work (Möll, 2007):

*AVE:* 0.823, *CFI:* 0.997 *Scale reliability (4 items):* α = .886

| ID  | Scale - Construct | Item                             |
|-----|-------------------|----------------------------------|
| M01 | Mood              | in a bad mood vs. in a good mood |
| M02 | Mood              | sad vs. happy                    |
| M03 | Mood              | uncomfortable vs. comfortable    |
| M04 | Mood              | tense vs. calm                   |

## Job satisfaction (Roelen et al., 2008; Rutherford et al., 2009):

AVE: 0.631, CFI: 0.734 Scale reliability (15 items):  $\alpha = .890$ 

| ID   | Scale - Construct                    | Item   |
|------|--------------------------------------|--|
| Zu01 | Satisfaction with supervision        | My superiors have always been fair in dealings with me.                              |
| Zu02 | Satisfaction with supervision        | I am satisfied with my superiors.  |
| Zu03 | Satisfaction with co-workers         | The people I work with are very friendly.  |
| Zu04 | Satisfaction with co-workers         | My co-workers help each other out when someone falls behind or gets in a tight spot. |
| Zu05 | Satisfaction with promotion          | My opportunities for advancement in this company are limited.                        |
| Zu06 | Satisfaction with promotion          | There are plenty of good jobs in this company for those who want to get ahead.       |
| Zu07 | Satisfaction with workload           | I am satisfied with the amount of work I have to do.                                 |
| Zu08 | Satisfaction with task variety       | I am satisfied with the variation of work tasks.                                     |
| Zu09 | Satisfaction with working conditions | I am satisfied with my working conditions.   |
| Zu10 | Satisfaction with work times         | I am satisfied with my work times.   |
| Zu11 | Satisfaction with salary             | I am satisfied with my salary.   |
| Zu13 | Satisfaction with work demands       | My work is mentally demanding.   |
| Zu14 | Job autonomy                         | I can determine how I do my work.  |
| Zu15 | Decision latitude                    | I can take part in decisions concerning my work.                                     |
| Zu16 | Satisfaction (overall)               | Overall, I am satisfied with my current job.   |

## Quality of work life (Van Laar, Edwards, & Easton, 2007):

*AVE:* 0.572, *CFI:* 0.736 *Scale reliability (9 items):* α = .810

| ID   | Scale - Construct              | Item   |
|------|--------------------------------|--|
| Qu01 | Quality of Work Life - SAW     | I often feel under pressure at work.                               |
| Qu02 | Quality of Work Life - SAW     | I often feel excessive levels of stress at work.                   |
| Qu03 | Quality of Work Life - WCS     | My employer provides me with what I need to do my job              |
|      |                                | effectively.   |
| Qu04 | Quality of Work Life - WCS     | I work in a safe environment.                                      |
| Qu05 | Quality of Work Life - HWI     | My employer provides adequate facilities and flexibility for me to |
|      |                                | fit work in around my family life.                                 |
| Qu06 | Quality of Work Life - HWI     | My current working hours suit my personal circumstances.           |
| Qu07 | Quality of Work Life - JCS     | I have the opportunity to use my abilities at work.                |
| Qu08 | Quality of Work Life - JCS     | I am encouraged to develop new skills.                             |
| Qu09 | Quality of Work Life (overall) | I am satisfied with the overall quality of my working life.        |

## Affective organizational commitment (McElroy & Morrow, 2010):

*AVE:* 0.765; *CFI:* 0.988 *Scale reliability (5 items):* α = .871

| ID    | Scale - Construct | Item   |
|-------|-------------------|--|
| AOC01 | AOC               | I feel that this organization's problems are my own.                       |
| AOC02 | AOC               | I feel like "part of the family" at this organization.                     |
| AOC03 | AOC               | I feel "emotionally attached" to this organization.                        |
| AOC04 | AOC               | Working for this organization has a great deal of personal meaning for me. |
| AOC06 | AOC               | I feel a strong sense of belonging to this organization.                   |

## Behavioral intentions (Rutherford et al., 2009; Delobbe & Vandenberghe, 2000):

*AVE:* 0.853; *CFI:* 0.975 *Scale reliability (4 items):* α = .917

| ID    | Scale - Construct  | Item   |
|-------|--------------------|--|
| Int01 | Intention to leave | How would you rate your chances of quitting this job in the next 6 months?     |
| Int02 | Intention to leave | How would you rate your chances of quitting this job in the next 12 months?    |
| Int03 | Intention to leave | How would you rate the likelihood of working for this organization in the long |
|       |                    | run?   |
| Int04 | Intention to leave | How often do you think about quitting your job?                                |

## Altruism (Podsakoff et al., 1990):

*AVE:* 0.830; *CFI:* 0.999 *Scale reliability (5 items):* α = .916

| ID    | Scale - Construct | Item  |
|-------|-------------------|---|
| Alt01 | Altruism          | My co-workers help others who have been absent.                             |
| Alt02 | Altruism          | My co-workers help others who have heavy workloads.                         |
| Alt03 | Altruism          | My co-workers help orient new people even though it is not required.        |
| Alt04 | Altruism          | My co-workers willingly help others who have work related problems.         |
| Alt06 | Altruism          | My co-workers are always ready to lend a helping hand to those around them. |

# Appendix 2: t-tests per company (Survey)

|                       | Superiors | Subordinates | Levene's        | t-test                   |
|-----------------------|-----------|--------------|-----------------|--------------------------|
| Mood at work          | M = 3.38  | M = 3.41     | F = 0.087, n.s. | t(15) = -0.072, n.s.     |
|                       | SD = 0.88 | SD = 0.96    |                 |                          |
| Job satisfaction      | M = 5.70  | M = 4.89     | F = 2.382, n.s. | t(15) = 1.585, n.s.      |
|                       | SD = 0.73 | SD = 1.12    |                 |                          |
| Quality of work life  | M = 5.17  | M = 4.77     | F = .102, n.s.  | t(15) = 0.691, n.s.      |
|                       | SD = 1.11 | SD = 1.15    |                 |                          |
| Affective commitment  | M = 5.03  | M = 3.93     | F = 0.047, n.s. | t (15) = 2.311, p < 0.05 |
|                       | SD = 1.02 | SD = 0.90    |                 |                          |
| Behavioral intentions | M = 2.13  | M = 3.45     | F = 2.735, n.s. | t(15) = -1.590, n.s.     |
|                       | SD = 1.13 | SD = 1.85    |                 |                          |
| <b>PEC-practices</b>  | M = 6.23  | M = 4.56     | F = 2.537, n.s. | t (15) = 2.613, p < 0.05 |
|                       | SD = 0.92 | SD = 1.40    |                 |                          |

Security company:

|                       | Superiors | Subordinates | Levene's              | t-test                    |
|-----------------------|-----------|--------------|-----------------------|---------------------------|
| Mood at work          | M = 3.75  | M = 3.43     | F = 1.182, n.s.       | t(34) = 0.781, n.s.       |
|                       | SD = 1.00 | SD = 1.10    |                       |                           |
| Job satisfaction      | M = 4.44  | M = 4.20     | F = 0.016, n.s.       | t(34) = 0.561, n.s.       |
|                       | SD = 1.12 | SD = 1.12    |                       |                           |
| Quality of work life  | M = 4.58  | M = 4.47     | F = 0.019, n.s.       | t(34) = 0.243, n.s.       |
|                       | SD = 1.18 | SD = 1.25    |                       |                           |
| Affective commitment  | M = 4.24  | M = 3.84     | F = 2.745, n.s.       | t(34) = 0.646, n.s.       |
|                       | SD = 1.30 | SD = 1.69    |                       |                           |
| Behavioral intentions | M = 3.31  | M = 3.60     | F = 0.007, n.s.       | t(34) = -0.370, n.s.      |
|                       | SD = 2.11 | SD = 2.07    |                       |                           |
| PEC-practices         | M = 6.09  | M = 3.88     | F = 19.096, p < 0.001 | t (33) = 5.641, p < 0.001 |
|                       | SD = 0.55 | SD = 1.80    |                       |                           |

Public services company:

|                       | Superiors | Subordinates | Levene's        | t-test                |
|-----------------------|-----------|--------------|-----------------|-----------------------|
| Mood at work          | M = 3.58  | M = 3.73     | F = 2.523, n.s. | t(16) = -0.376, n.s.  |
|                       | SD = 0.44 | SD = 0.89    |                 |                       |
| Job satisfaction      | M = 4.89  | M = 5.25     | F = 1.704, n.s. | t(16) = -0.816, n.s.  |
|                       | SD = 0.57 | SD = 1.00    |                 |                       |
| Quality of work life  | M = 4.61  | M = 5.21     | F = 0.030, n.s. | t(16) = -0.1578, n.s. |
|                       | SD = 0.68 | SD = 0.80    |                 |                       |
| Affective commitment  | M = 4.90  | M = 4.27     | F = 0.209, n.s. | t (16) = 0.267, n.s.  |
|                       | SD = 1.40 | SD = 1.36    |                 |                       |
| Behavioral intentions | M = 3.38  | M = 2.44     | F = 0.570, n.s. | t(16) = 0.995, n.s.   |
|                       | SD = 2.30 | SD = 1.67    |                 |                       |
| PEC-practices         | M = 6.00  | M = 5.60     | F = 2.421, n.s. | t (16) = 0.669, n.s.  |
|                       | SD = 0.68 | SD = 1.37    |                 |                       |

# **Appendix 3: Script used for the video (Experiment)**

A customer is currently at a travel agency, because he or she is planning a vacation to the US. He or she intends to visit a language course first, and go on a road trip after. The customer has never been to the US before. Therefore, he or she is dependent on the information and remarks by the service worker. The customer pre-arranged an appointment via e-mail.

#### Text - 1a

Sie planen eine Sprachreise in die USA und befinden sich zurzeit bei Lingua Sprachaufenthalte.

#### **Text - 1b**

Ihnen schwebt vor, zunächst einen Englischkurs zu besuchen, und danach etwas herumzureisen.

### Text - 1c

Sie waren aber noch nie in den USA und sind daher auf die Ausführungen der Beratungsperson angewiesen.

## **Text - 1d**

Sie wurden bereits an einen Tisch geführt und sitzen der Beratungsperson gegenüber.

#### Service person

Schön, dass Sie Zeit gefunden haben, vorbeizukommen. Wäre es ok für Sie, wenn ich Sie duze?

### *Text - 2*

#### Sie nicken und bejahen.

#### Service person

Gut. Du hast dich ja bei uns mit einer kurzen Email gemeldet, weil du dich für einen Sprachaufenthalt in den USA interessierst.

Die USA sind ja ziemlich gross und vielleicht hast du schon gesehen, dass wir so einige Destinationen im Angebot haben. Hast du dir schon überlegt, wohin du gerne willst? Und wann?

## Text - 3a

Sie erklären, dass Sie vorhaben, in den Sommermonaten Juli und August zu gehen.

#### **Text - 3b**

Da Sie im Anschluss an den Kurs noch 2 bis 3 Wochen herumreisen wollen, möchten Sie den Englischkurs Anfang Juli für 3 Wochen machen.

#### *Text - 3c*

Sie haben sich allerdings noch nicht überlegt, wohin Sie gerne gehen möchten.

#### Service person

*Ok.*. *Kein Problem, dann zeig ich dir doch einfach mal, was wir im Angebot haben.* 

Vorab möchte ich nur kurz auf die Einreisebestimmungen eingehen. Wichtig dabei ist, welchen Pass du hast, also ob du ohne Visum einreisen kannst, das wäre grundsätzlich für 3 Monate möglich. Allerdings wirst du von der Schule als Student angemeldet, sobald du mehr als 18 Stunden pro Woche Unterricht hast. Dann bräuchtest du zur Einreise ein Studentenvisum, was mit zeitlichem und finanziellem Aufwand verbunden ist. Das ist ein wichtiger Punkt. Wir haben dazu ein kurzes Merkblatt verfasst, das ich dir nachher gerne mitgebe. Du kannst es ja mal für dich durchlesen. Wenn Unklarheiten bestehen, einfach nachfragen.

Gut, dann lass uns doch mal über die verschiedenen Destinationen und Schulen, und über die Kurse sprechen, die wir im Angebot haben. New York, Boston, Miami, ...

Was ist dir wichtig? Hast du irgendwelche Erwartungen an deinen Sprachaufenthalt? Bestimmte Interessen?

#### Text - 4a

Sie erklären, dass Sie die 3 Wochen auf jeden Fall nutzen möchten, um intensiv Englisch zu lernen und die Zeit danach für das Reisen nutzen wollen.

#### Text - 4b

Sie haben aber noch keine klaren Vorstellungen davon, was am Passendsten wäre.

Strand? Meer? ..wichtig oder eher nicht?

#### *Text* - 5

Sie erklären, dass es Ihnen schon sehr wichtig ist, ans Meer zu können. Wenn möglich auch gerne mit Bademöglichkeiten, da Sie im Juli anreisen würden.

#### Service person

*Ok! Gehst du abends gerne aus?* 

#### *Text* - 6

Sie teilen der Beratungsperson mit, dass es Ihnen wichtig ist, dass es vor Ort verschiedene Freizeitangebote hat, und dass Sie auch gerne abends etwas unternehmen.

#### Service person

Gut.. Dann wissen wir schon mehr.

#### **Text -** 7

Während der folgenden Ausführungen hören Sie aufmerksam zu und überlassen der Beratungsperson die Gesprächsführung.

#### Service person

Gut.. Im Süden mit einem schwül-warmen bis heissen Klima würde sich beispielsweise Miami anbieten. Viel Sonne, wunderschöner Strand, lauwarmes Meerwasser.. Was du dazu allerdings wissen musst, in Florida ist dann Hurricane-Season. Das könnte dir, vor allem im Anschluss an den Kurs, da du ja noch herumreisen möchtest, einen Strich durch die Rechnung machen.

#### Zur Westküste..

Über Los Angeles hast du sicherlich auch schon viel gehört und vieles kennt man ja auch aus dem Fernsehen. Zu Los Angeles muss man halt sagen, das ist eine Riesenstadt, sie ist sehr weitläufig und bietet viel.. Sonne, Strand, Meer, Nachtleben.. In Los Angeles leben auch viele Schauspieler, teilweise läuft man an einer Strasse vorbei, an der gerade ein Film gedreht wird.

Ich würde dir aber am ehesten San Francisco empfehlen. Diese Stadt lädt zwar auch nicht so zum Baden ein, bietet aber extrem viele Sehenswürdigkeiten und Freizeitaktivitäten. Ausserdem bietet es sich an, nach den Kursen der kalifornischen Küste entlang Richtung Süden zu fahren. Unterwegs kann man so ziemlich überall Halt machen und sozusagen Badeferien im Anschluss ans Lernen machen, und letztlich auch Los Angeles erkunden.

Ja, was meinst du? Über welche Stadt möchtest du denn gerne mehr wissen?

#### *Text* - 8

Sie bedanken sich für den Überblick und möchten gerne ein wenig mehr über San Francisco erfahren.

#### Service person

Super! Am besten ich geb dir einen kurzen Überblick über die Stadt und die Schulen, die wir im Angebot haben.

#### *Text* - 9

Sie nicken und überlassen wiederum der Beratungsperson die Gesprächsführung.

#### Service person

Gut.. San Francisco befindet sich an der nördlichen Spitze einer Halbinsel. Im Westen liegt der pazifische Ozean, im Norden die Golden Gate Bridge [zeigt auf Bild] und im Osten die Bucht. San Francisco ist eine der bedeutendsten Hafenstädte an der Westküste Nordamerikas und vor allem auch berühmt für seine Hügel. Du hast vielleicht schon mal dieses Bild gesehen [zeigt auf Bild]. Hier ist die Lombard Street abgebildet. Sie wird als kurvenreichste Strasse der Welt bezeichnet wird. In der Bucht von San Francisco liegen verschiedene Inseln, u.a. auch die bekannte Gefängnisinsel Alcatraz. Wie viele andere amerikanische Städte ist San Francisco sehr international. Da gibt es zum Beispiel eine Japantown und eine Chinatown. Das sieht man hier auf dem Bild [zeigt auf Bild]. Dann gibt's auch den Stadtteil Soma, der bekannt ist für seine Galerien und Kunstaktivitäten. San Francisco wurde vor allem in den 70ern bekannt als Hochburg der Hippieszene und gilt auch heute noch als Zentrum der US-amerikanischen Gegenkultur. Die Stadt ist grundsätzlich sehr vielseitig und bietet für jeden etwas.

## Text - 10

Sie teilen der Beratungsperson mit, dass Sie sehr an San Francisco interessiert sind.

Schön. Ja, was meinst du? Wollen wir mal ein Beispiel durchrechnen? Dann kannst du dir ein Bild über die Kosten machen. Wenn du dich im Nachhinein für eine andere Destination entscheidest. Dann ist das kein Problem. Wir erstellen dir einfach ein neues Angebot.

#### Text - 11

### Sie erklären sich einverstanden.

#### Service person

Gut.

Dann trag ich schon mal deinen Namen ein, die Destination und die geplante Dauer. Als Starttermin setze ich mal den ersten Montag im Juli ein. Diese Angaben kannst du natürlich immer noch ändern. Das ist jetzt erst mal provisorisch.

*Gut, dann stellt sich primär noch die Frage, welche Kurse in San Francisco angeboten werden.* 

Ah, sehr gut. Unsere Partnerschule in San Francisco bietet sowohl Standard- als auch Intensivkurse an. Du hast ja schon gesagt, dass du lieber einen Intensivkurs besuchen möchtest, weil du ja nur 3 Wochen da sein wirst. An unserer Partnerschule werden Intensivkurse mit 28 Lektionen à 50 Minuten pro Woche angeboten. In den Klassen sind so zwischen 8 bis 10 Personen. Übrigens, im Sommer ist das Durchschnittsalter an den meisten Sprachschulen eher niedrig. Bei San Francisco aber, liegt der Schnitt weniger tief als vergleichsweise in Miami oder Los Angeles.

Ok, die Kosten betragen für einen Intensivkurs so zwischen 2500 und 3500 Franken für 3 Wochen. Darin enthalten ist der Unterricht, die Einschreibegebühr und das Kurszertifikat sowie ein Reiseführer und Reiseunterlagen.

Ich muss dich noch darüber informieren, dass du am ersten Tag noch einen Einstufungstest absolvieren musst. Dieser entscheidet dann darüber, welchem Kursniveau du zugeteilt wirst. Das dazugehörige Kursmaterial kriegst du für 45 US-Dollar. Das kannst du dann aber gleich vor Ort bezahlen.

*Hier stellt sich die Frage, ob du lieber in eine Wohngemeinschaft oder lieber in eine Gastfamilie willst.* 

#### Text - 12

Sie erklären, dass Sie sich am ehesten eine Wohngemeinschaft vorstellen können, da Sie doch sehr unabhängig sein möchten.

*Ok, gut. Dann wären das... 3024 US-Dollar. Das wären beim heutigen Umrechnungskurs...* [rechnet dies mit Taschenrechner aus] *.. aufgerundet 3203 Franken.* 

Für den Anfang wäre das mal das Wichtigste. Wenn du eine Zusatznacht wünschst, dann kannst du uns das schnell mitzuteilen, dann können wir das für dich organisieren. Die Einreisebestimmungen hab ich ja zu Anfang schon ganz kurz erwähnt. Wie gesagt, auf diesem Zettel findest du alle nötigen Informationen. Wir empfehlen unseren Sprachreisenden, sich möglichst frühzeitig um ein Visum zu kümmern, weil die Prozedur doch ziemlich zeitaufwändig ist.

Zum Flug.. Ich kann dir gerne unser Partnerreisebüro empfehlen. Die können dir dann ein unverbindliches Angebot machen. Falls du zudem einen Flughafentransfer brauchst, dann können wir das natürlich für dich organisieren.

## Text - 13

Sie lassen die Beratungsperson wissen, dass Sie den Flug selber buchen möchten, da Sie im Anschluss an den Kurs noch herumreisen wollen. Auf den Flughafentransfer verzichten Sie ebenfalls.

#### Service person

Ok, gut.. Ja, wenn ich unsere Checkliste so ansehe, dann hätten wir für den Moment alles. Der aktuelle Totalbetrag ist 3203 Schweizer Franken. Wie erwähnt bezahlst du das Kursmaterial, die 45 US-Dollar vor Ort. Für den Flug nach San Francisco wirst du wahrscheinlich noch mit einem relativ hohen Betrag rechnen müssen, da du deinen Aufenthalt genau in der Hochsaison planst.

Perfekt, dann geb ich dir auch nochmal unseren Katalog mit, in dem du weitere Informationen zu San Francisco, zur Schule und zu beliebten Freizeitaktivitäten in der Region findest. Im Katalog findest du übrigens auch alle anderen Destinationen in den USA, die wir im Angebot haben. Die jeweiligen Preislisten sind ebenfalls abgedruckt.

Ich schlage vor, du schaust du dir alles nochmals in Ruhe an und lässt es dir durch den Kopf gehen. Und falls noch Unklarheiten bestehen, kannst du jederzeit nachfragen. Wir werden dann in ca. 1-2 Monaten auf dich zukommen und nachfragen, wie deine Entscheidung ausgefallen ist.

Ist das so in Ordnung für dich?

#### Text - 14

Sie sind damit einverstanden.

Sehr gut. Dann wünsch ich dir noch einen schönen Tag.. und.. du hörst von mir.

## Text - 15

Vielen Dank für Ihre Aufmerksamkeit! Bitte füllen Sie nun den Fragebogen aus.

Ende

# **Appendix 4: Interaction descriptions (Experiment)**

|          | Negative emotions condition-<br>Female (NF)   | No. of<br>entries | Positive emotions condition-<br>Female (PF)  | No. of<br>entries |
|----------|---|-------------------|--|-------------------|
| negative | sad, boring, unemotional or bland,<br>dismissive, cool, monotone,<br>unpleasant                                 | multiple          | n.a.   | multiple          |
|          | e.g., depressing, unfriendly,<br>lethargic, frustrated, indifferent,<br>uninspired, dull, impersonal,<br>gloomy | 1                 | e.g., clumsy, stiff, not very<br>friendly, boring, fake, unnatural,<br>unemotional, unmotivated,<br>gloomy   | 1                 |
| neutral  | n.a.  | multiple          | friendly, unemotional, boring, neutral, informative, dry   | multiple          |
|          | e.g., calm, unmotivated, boring, competent  | 1                 | e.g., insecure, unnatural, stiff,<br>cautious, not spontaneous,<br>matter-of-fact, disappointing,<br>neutral, cheerful, open, fake,<br>understanding | 1                 |
| positive | n.a.  | multiple          | friendly, pleasant   | multiple          |
|          | e.g., seems depressive and bored, perceived as funny  | 1                 | e.g., calm, nice, informative, professional, experienced,  | 1                 |

## Female service worker-conditions

## Male service worker-conditions

|          | Negative emotions condition-<br>Male (NM)   | No. of<br>entries | Positive emotions condition-<br>Male (PM)   | No. of<br>entries |
|----------|---|-------------------|---|-------------------|
| negative | boring, indifferent, dull, lethargic, unpleasant                                    | multiple          | n.a.  | multiple          |
|          | e.g., sad, depressing, unmotivated,<br>unemotional, inactive, gloomy,<br>depressive | 1                 | e.g., discouraged, unhealthy, disappointed  | 1                 |
| neutral  | unemotional, matter-of-fact, boring   | multiple          | n.a.  | multiple          |
|          | e.g., dry, lethargic, concentrated, uninterested                                    | 1                 | e.g., informative, neutral,<br>comprehensive, inviting, quiet,<br>thoughtful      | 1                 |
| positive | n.a.  | multiple          | pleasant, friendly, positive, congenial   | multiple          |
|          | n.a.  | 1                 | e.g., calm, informative,<br>competent, open-minded,<br>calming, customer-oriented | 1                 |

# **Appendix 5: Scales used (Experiment)**

# Mood (Möll, 2007):

Scale reliability (4 items):  $\alpha = .826$ 

| ID  | Scale - Construct | Item                             |
|-----|-------------------|----------------------------------|
| M01 | Mood              | in a bad mood vs. in a good mood |
| M02 | Mood              | sad vs. happy                    |
| M03 | Mood              | uncomfortable vs. comfortable    |
| M04 | Mood              | tense vs. calm                   |

## Satisfaction:

Scale reliability (4 items):  $\alpha = .975$ 

| ID   | Scale - Construct | Item  |
|------|-------------------|---|
| Zu01 | Satisfaction      | I am satisfied with my decision to make use of Lingua's services. |
| Zu02 | Satisfaction      | I think I made the right decision by chosing Lingua.              |
| Zu03 | Satisfaction      | My overall satisfaction with chosing Lingua is very high.         |
| Zu04 | Satisfaction      | Overall, I am satisfied with my decision to work with Lingua.     |

## Service quality (Parasuraman, Zeithaml, & Berry, 1991):

Scale reliability (10 items):  $\alpha = .920$ 

| ID   | Scale - Construct  | Item   |
|------|--|--|
| Qu02 | SERVQUAL - Tangibles   | Lingua's physical facilities are visually appealing.           |
| Qu04 | SERVQUAL - Tangibles   | Materials associated with the service are visually appealing.  |
| Qu08 | SERVQUAL - Reliability   | Lingua provides its services at the time it promises to do so. |
| Qu09 | SERVQUAL - Reliability   | Lingua insists on error-free records.                          |
| Qu11 | SERVQUAL - Responsiveness  | Employees of Lingua give me prompt service.                    |
| Qu12 | SERVQUAL - Responsiveness  | Employees of Lingua are always willing to help me.             |
| Qu15 | SERVQUAL - Assurance   | I feel safe in transactions with Lingua.                       |
| Qu17 | SERVQUAL - Assurance The employees of Lingua have the knowledge to answer my |  |
|      |  | questions.   |
| Qu20 | SERVQUAL - Empathy   | Lingua has employees who give me personal attention.           |
| Qu22 | SERVQUAL - Empathy   | Employees of Lingua understand my specific needs.              |

# Behavioral intentions (Zeithaml, Berry, & Parasuraman, 1996):

Scale reliability for desirably intentions (9 items):  $\alpha = .965$ Scale reliability for undesirable (4 items):  $\alpha = .758$ 

| ID    | Scale - Construct | Item   |
|-------|-------------------|--|
| BIB01 | Loyalty           | I say positive things about Lingua to other people.  |
| BIB02 | Loyalty           | I recommend Lingua to someone who seeks my advice.   |
| BIB03 | Loyalty           | I encourage friends and relatives to do business with Lingua.  |
| BIB04 | Loyalty           | I consider Lingua my first choice for services.  |
| BIB05 | Loyalty           | I intend to do more business with Lingua in the next few years.  |
| BIB06 | Switch            | I intend to do less business with Lingua in the next few years.  |
| BIB07 | Switch            | I intend to take some of my business to a competitor that offers better prices.                              |
| BIB08 | Pay more          | I will continue to do business with Lingua, if its prices increase somewhat.                                 |
| BIB09 | Pay more          | I am willing to pay a higher price than competitors charge for the benefits I currently receive from Lingua. |
| BIB10 | External response | Switch to a competitor, if you experience a problem with Lingua<br>Sprachaufenthalte's service.              |
| BIB11 | External response | I will complain to other customers, if I experience a problem with Lingua's service.                         |
| BIB12 | External response | I will complain to external agencies, if I experience a problem with Lingua's service.                       |
| BIB13 | Internal response | I will complain to Lingua' employees, if I experience a problem with Lingua' service.                        |

# **Appendix 6: Assumptions for (M)ANOVA (Experiment)**

For expressive display:

|                                   | condition | value | df | p     |
|-----------------------------------|-----------|-------|----|-------|
| Mood $t_0$                        | NM        | .186  | 17 | .120  |
|                                   | PM        | .241  | 17 | .009  |
| Mood $t_1$                        | NM        | .195  | 17 | .083  |
|                                   | PM        | .284  | 17 | .001  |
| Satisfaction                      | NM        | .175  | 17 | .175  |
|                                   | PM        | .144  | 17 | .200* |
| Service quality                   | NM        | .155  | 17 | .200* |
|                                   | PM        | .172  | 17 | .195  |
| Desirable behavioral intentions   | NM        | .159  | 17 | .200* |
|                                   | PM        | .113  | 17 | .200* |
| Undesirable behavioral intentions | NM        | .129  | 17 | .200* |
|                                   | PM        | .190  | 17 | .103  |

## Tests for normality: Kolmogorov-Smirnov

Notes: N = 34, equal group size

\*This is a lower bound of the true significance.

#### Test of equality of variances: Levene

|                                   | F     | df1 | df2 | р    |
|-----------------------------------|-------|-----|-----|------|
| Mood $t_0$                        | 1.426 | 1   | 32  | .241 |
| Mood $t_1$                        | 3.178 | 1   | 32  | .084 |
| Satisfaction                      | .347  | 1   | 32  | .560 |
| Service quality<                  | 1.117 | 1   | 32  | .298 |
| Desirable behavioral intentions   | .574  | 1   | 32  | .454 |
| Undesirable behavioral intentions | .048  | 1   | 32  | .829 |

Notes: N = 34, equal group size

#### Test of equality of covariances: Box's M

V = 18.898, F = 1.632, df1 = 10, df2 = 4895.618, p = .091

### For customer mood:

|                                   | median-split mood t <sub>1</sub> | value | df | р     |
|-----------------------------------|----------------------------------|-------|----|-------|
| Satisfaction                      | negative mood                    | .205  | 17 | .056  |
|                                   | positive mood                    | .181  | 17 | .140  |
| Service quality                   | negative mood                    | .205  | 17 | .055  |
|                                   | positive mood                    | .180  | 17 | .144  |
| Desirable behavioral intentions   | negative mood                    | .135  | 17 | .200* |
|                                   | positive mood                    | .173  | 17 | .190  |
| Undesirable behavioral intentions | negative mood                    | .144  | 17 | .200* |
|                                   | positive mood                    | .111  | 17 | .200* |

## Tests for normality: Kolmogorov-Smirnov

Notes: N = 34, equal group size

\*This is a lower bound of the true significance.

## Test of equality of variances: Levene

|                                   | F     | df1 | df2 | р    |
|-----------------------------------|-------|-----|-----|------|
| Satisfaction                      | 0.049 | 1   | 32  | .826 |
| Service quality<                  | 0.105 | 1   | 32  | .748 |
| Desirable behavioral intentions   | 2.208 | 1   | 32  | .147 |
| Undesirable behavioral intentions | 0.044 | 1   | 32  | .835 |

Notes: N = 34, equal group size

## Test of equality of covariances: Box's M

V = 17.565, F = 1.517, df1 = 10, df2 = 4895.618, p = .126

| Items     | Expressive<br>display | Mood  | Customer<br>satisfaction | Service<br>quality | Desirable<br>behavior | Undesirable<br>behavior |
|-----------|-----------------------|-------|--------------------------|--------------------|-----------------------|-------------------------|
| Condition | 1.000                 |       |                          |                    |                       |                         |
| M01t1     |                       | 0.945 |                          |                    |                       |                         |
| M02t1     |                       | 0.898 |                          |                    |                       |                         |
| M03t1     |                       | 0.954 |                          |                    |                       |                         |
| M04t1     |                       | 0.860 |                          |                    |                       |                         |
| Zu01      |                       |       | 0.973                    |                    |                       |                         |
| Zu02      |                       |       | 0.975                    |                    |                       |                         |
| Zu03      |                       |       | 0.973                    |                    |                       |                         |
| Zu04      |                       |       | 0.957                    |                    |                       |                         |
| Qu02      |                       |       |                          | 0.592              |                       |                         |
| Qu04      |                       |       |                          | 0.685              |                       |                         |
| Qu08      |                       |       |                          | 0.636              |                       |                         |
| Qu09      |                       |       |                          | 0.768              |                       |                         |
| Qu11      |                       |       |                          | 0.762              |                       |                         |
| Qu12      |                       |       |                          | 0.863              |                       |                         |
| Qu15      |                       |       |                          | 0.760              |                       |                         |
| Qu17      |                       |       |                          | 0.803              |                       |                         |
| Qu20      |                       |       |                          | 0.915              |                       |                         |
| Qu22      |                       |       |                          | 0.882              |                       |                         |
| BIB01     |                       |       |                          |                    | 0.971                 |                         |
| BIB02     |                       |       |                          |                    | 0.831                 |                         |
| BIB03     |                       |       |                          |                    | 0.962                 |                         |
| BIB04     |                       |       |                          |                    | 0.904                 |                         |
| BIB05     |                       |       |                          |                    | 0.867                 |                         |
| BIB06_r   |                       |       |                          |                    | 0.914                 |                         |
| BIB07_r   |                       |       |                          |                    | 0.771                 |                         |
| BIB08     |                       |       |                          |                    | 0.955                 |                         |
| BIB09     |                       |       |                          |                    | 0.817                 |                         |
| BIB10     |                       |       |                          |                    |                       | 0.851                   |
| BIB11     |                       |       |                          |                    |                       | 0.808                   |
| BIB12     |                       |       |                          |                    |                       | 0.707                   |
| BIB13     |                       |       |                          |                    |                       | 0.682                   |

# **Appendix 7: Factor loadings (Experiment)**

# **Curriculum Vitae**

# Janice Karen Ashia Spiess, M.Sc.

| Date of Birth: | 4 <sup>th</sup> February 1979 |
|----------------|-------------------------------|
| Nationality:   | Swiss, (Ghanaian)             |

# Education

| 2007 - 2011 | University of St. Gallen:<br>PhD-Program, Business Administration   |
|-------------|---|
| 2000 - 2006 | University of Zurich:<br>M.Sc., Psychology, Journalism and Media Sciences, and Business<br>Administration |

# Additional

| 07/2010 - 08/2010   | University of Michigan, Ann Arbor:                               |
|---------------------|--|
| & 07/2009 - 08/2009 | Summer School in Quantitative Methods of Social Research, Inter- |
|                     | University Consortium for Political and Social Research (ICPSR)  |

# **Work Experience**

| 05/2011 - present | Swisscom IT Services                                |
|-------------------|---|
| 06/2007 - 01/2011 | Executive MBA, University of St. Gallen             |
| 09/2005 - 11/2008 | Regionale Suchtpräventionsstelle Bezirk Andelfingen |
| 10/2005 - 12/2007 | Checkport Schweiz AG                                |
| 06/2005 - 03/2006 | Götte & Freund Rechtsanwälte                        |
| 02/2005 - 09/2005 | Regionale Suchtpräventionsstelle Bezirk Andelfingen |
| 04/2004 - 01/2005 | Tyco Healthcare Group AG                            |
| 05/2002 - 03/2004 | Partner Reinsurance Company Ltd.                    |
| 02/2001 - 03/2001 | Tyco Healthcare Group AG                            |
| 02/2000 - 09/2000 | Tyco Healthcare Group AG                            |