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‘Like a Fish out of Water’

The Big Five and Context Related Variables as
Predictors for Expatriate Adjustment

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Lüneburg, 23. Juni 2006

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Abstract

Content of this empirical study is the examination of the influence of personality and context related variables on socio-cultural as well as psychological adjustment. A sample of 139 German speaking expatriates in China participated in standardized interviews and filled out a personality questionnaire (NEO-PI-R). Other-ratings of adjustment were provided by supervisors, colleagues, or employees (N=69) of the interviewee. Results show that with exception of Conscientiousness the Big Five predict adjustment. Likewise, context related variables were found to be related to the adjustment of expatriates.

Keywords: foreign assignment, expatriate, Big Five, cross-cultural adjustment

Zusammenfassung

Inhalt dieser empirischen Studie ist die Untersuchung des Einflusses von Persönlichkeit und kontextspezifischen Variablen auf die soziokulturelle und psychologische Anpassung. Eine Stichprobe von 139 deutschsprachigen Auslandsmitarbeitern in China nahm an standardisierten Interviews sowie an einem Persönlichkeitstest (NEO-PI-R) teil. Die Fremdeinschätzung der Anpassung erfolgte durch Vorgesetzte, Kollegen oder Mitarbeiter (N=69) der Interviewten. Die Ergebnisse zeigen, dass mit Ausnahme von Gewissenhaftigkeit, die Big Five Anpassung vorhersagen können. Ebenfalls zeigen kontextspezifische Variablen einen Einfluss auf die Anpassung der Auslandsmitarbeiter.

Schlagwörter: Auslandsentsendung, Auslandsmitarbeiter, Big Five, interkulturelle Anpassung

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Abbreviations and Statistical Symbols

CEO	Chief Executive Officer
cf.	compare
<i>d</i>	effect size of mean differences according to Cohen (1988)
etc.	et cetera
e.g.	for example
GLOBE	Global Leadership and Organizational Behavior Effectiveness
HR	Human Resource
i.e.	that is
<i>N</i>	number of members in the total sample size
<i>n</i>	number of members in a limited portion of the total sample
NEO-PI-R	Neuroticism, Extraversion, Openness-Personality Inventory-Revised
<i>r</i>	Pearson product moment correlation coefficient
<i>SD</i>	Standard Deviation

Introduction

Sending people abroad is a challenging as well as a complex task for multinational companies. Due to the fact that today's business world is global and the "continuing growth of expatriates numbers across the globe" (PricewaterhouseCoopers, 2005, p. 7) the delegated manager or expert has become more and more important for organizations (Aycan, 1997a; Javidan & House, 2002). The temporary employment abroad, so-called expatriation, is common for a lot of specialists and executive staff. Many organizations base their decision for selection to international assignments on technical knowledge and willingness of the employee (Deller, 1997, 2000, 2005; Mendenhall, Kühlmann, Stahl, & Osland, 2002; Mendenhall & Oddou, 1985; Sergeant & Frenkel, 1998). Employees abroad must also be able to deal successfully with new roles and norms within in the foreign country. Furthermore, they are confronted with new social situations and not only with an unfamiliar work environment and, at least in most cases with extended job responsibilities (Black & Gregersen, 1999; Deller, 2005; Selmer, 2004). All in all, they feel 'like a fish out of water'. Research suggests that employees who are sent abroad need to become adjusted for performing well and likewise completing the assignment successfully (Arthur & Bennett, 1995; Black, 1988; Mendenhall & Oddou, 1985). Consequently, taking into account that selection decisions are frequently based on technical knowledge, the reported failure rates are not surprising and may result in early return from overseas (Forster, 1997; Tung, 1998; van Oudenhoven, van der Zee, & van Kooten, 2001). But, as Harzing (1995) argues, no empirical research has been done to examine the high failure rates when measured as premature return. However, it remains a challenge for organizations to ensure that the employee will meet the demands abroad.

Additionally, research points out that poor adjustment often leads to personal dissatisfaction as well as to insufficient performance during the assignment (Kaye & Taylor, 1997; Selmer, 2002; Shaffer & Harrison, 1998; van Vianen, de Pater, Kristof-Brown, & Johnson, 2004). Further, imaginable results are the damage of relationships to clients, suppliers, or the host countries' government which possibly result in damage of the companies' reputation or the loss of market shares (Aycan, 1997a; Black & Mendenhall, 1991; Mendenhall & Oddou, 1985). The multidimensionality of adjustment becomes clear when thinking of the results of maladaptation: dissatisfaction with the assignment as well as low performance. While dissatisfaction with the social environment is an indicator for poor general adjustment, inadequate performance is an indicator for poor work adjustment (Aycan, 1997a; Dalton & Wilson, 2000). Both facets of adjustment will be explained later.

Performance is the criterion of highest interest for organizations (Austin & Villanova, 1992), the additional aspect that adjustment impacts performance makes international assignments so special when compared to domestic work settings. Assuming that adjustment is an important predecessor of performance, we need to know about adjustment. Therefore, a better understanding of those factors which primarily influence adjustment is desirable. This article aims to examine how personality characteristics and context related variables such as contact to hosts or pre-departure training relate to adjustment.

This research is important for several reasons. First, to our knowledge no study exists which has explored adjustment over time by depicting the process in comparison with personality characteristics as well as context related variables. Second, the study has been conducted in China. Due to the development of the Chinese economy, many companies feel a need to invest in China. With a lot of German companies establishing subsidiaries in a rather new market, the number of German employees sent to China is large. Further, no other study is known to have explored the adjustment of *German speaking expatriates* on the Chinese mainland. Usually, studies conducted on expatriate adjustment include several nationalities in their sample. Likewise, most of the published studies have been conducted with students, particularly with American students. Finally, this study differentiates between socio-cultural and psychological adjustment which most other studies do not. Concluding, this study seeks to examine how German speaking expatriates adjust to the unfamiliar work and living environment in China.

The Study

In this paper we report selective results of an investigation which was conducted in China. The research in China is one part of an extensive study carried out in a number of different countries, namely: Argentina, Egypt, Italy, Korea, Russia, and the United States. All face-to-face interviews included several measurements which were identical across all countries. The results of all these countries will be consolidated and reported by Deller and Albrecht (in press). Therefore, we do not report results of all measures applied within the study but rather we refer to a special part of the comprehensive investigation in this paper.

Theoretical Framework

Expatriation

Expatriation already started hundreds years ago when humans went abroad for their country e.g., as military members or traders (Sinangil & Ones, 2005). Nowadays, individuals who are working and living in a foreign country are mostly employees of multinational organizations and are colloquially referred to as *expatriates*. Aycan and Kanungo (1997) use a narrow time definition for expatriation of “usually more than six months and less than five years in one term” (p. 250). The study of PricewaterhouseCoopers (2005) indicates more flexibility in handling expatriation, than in the past. Today, organizations apply long-term as well as short-term assignments (PricewaterhouseCoopers, 2005). Therefore, we support the broader definition of expatriates of Sinangil and Ones (2005): “Expatriates are individuals who go overseas to accomplish a job-related goal” (p. 425).

Inherently, a job transfer is a stressful event, but it seems to be even more stressful when it takes part in an international context. Besides a new country with values and norms different from their own, expatriates enter a new work environment “where work role expectations are often unfamiliar and ambiguous” (Aryee & Stone, 1996, p. 152). In addition to living and working in another culture, succeeding in business is the task and the goal for expatriates.

Culture

The entry into foreign markets comprises a lot of difficulties. The main problem does not appear to be the development status of the host country or the geographical distance from the homeland, but rather the culture. Culture plays a major role in business life and similarly in private life. Work methods and work etiquette, which go without saying at home, are different abroad (Thomas & Schenk, 2001) especially when looking at countries like China and Germany where the *cultural distance* is enormous (Hofstede, 1980). The term cultural distance suggests that adjusting to a culture that is very distant or different from one’s own is much more difficult (Stahl & Caligiuri, 2005; van Vianen, et al., 2004) compared to countries which are cultural similar like e.g., Germany and The Netherlands. In order to be successful abroad it is necessary to understand cultural similarities as well as differences to manage global business challenges and establish strong business relationships (Brislin & Kim, 2003; Jun & Gentry, 2005). GLOBE (Global Leadership and Organizational Behavior Effectiveness) is a research project that attempts to describe the similarities as well as the

dissimilarities. “Its intent is to explore the cultural values and practices in a wide variety of countries, and to identify their impact on organizational practices and leadership attributes” (House, Javidan, Hanges, & Dorfman, 2002, p. 3).

Researchers have generated hundreds of definitions of culture. Usually they refer to culture as shared values, norms, motives, and beliefs (cf. Aycan et al., 2000; Torbiörn, 1982). Likewise, the GLOBE research program defines culture as “*shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives that are transmitted across generations*” (House & Javidan, 2004, p. 15). As we refer to GLOBE for our study we also stick to GLOBE’s definition of culture.

GLOBE’s umbrella purpose is the development of a theoretical concept via empirical data “to describe, understand, and predict the impact of specific cultural variables on leadership and organizational processes and the effectiveness of these processes” (House et al., 2002, p. 4). As aforementioned, GLOBE’s mission is to analyze the similarities and dissimilarities between cultures. Hence, to study them they used cultural clusters in which similar countries are grouped together. Via support of 170 investigators data were collected from 62 societies (House & Javidan, 2004). They grouped the nations into 10 distinct clusters, named as follows: Anglo, Latin Europe, Nordic Europe, Germanic Europe, Eastern Europe, Latin America, Sub-Saharan Africa, Middle East, Southern Asia and Confucian Asia (Gupta & Hanges, 2004). Nine core culture dimensions have been identified which differentiate between the clusters. These are Uncertainty Avoidance, Power Distance, Institutional Collectivism, In-Group Collectivism, Gender Egalitarianism, Assertiveness, Future Orientation, Performance Orientation, and Human Orientation (for further explanations see, House & Javidan, 2004, pp. 11-13). By using a seven-point scale the interviewees in a culture-cluster answered questions concerning organizational and societal *practices* (*What Is* or *What Are*) as well as organizational and societal *values* (*What Should Be*) (House & Javidan, 2004). This differentiation was used because values and practices can change and differ; consequently, they do not always go side by side (House et al., 2002).

In the following we will argue, why we carried out the study in China: China is part of the Confucian Asia cluster. Austria, Germany (former West), Germany (former East), The Netherlands, and Switzerland belong to the Germanic Europe cluster. Whereas Confucian Asia shows high *practical* scores in Institutional Collectivism and In-Group Collectivism Germanic Europe shows only low practical scores in these cultural dimensions. Furthermore, Germanic Europe has high practical scores in Assertiveness, Future Orientation, and

Uncertainty Avoidance while Confucian Asia has only mid-scores. Both clusters differ in practical scores with the exception of Performance Orientation and Power Distance. In contrast to culture practices the Germanic European cluster clearly differs in culture *values* from the Confucian Asia cluster in all cultural dimensions with the exception of Human Orientation, Institutional as well as In-Group Collectivism, and Power Distance (Gupta & Hanges, 2004). These comparisons reflect the cultural distance between China and Germanic Europe. The Chinese culture with its religions, values, norms, customs, languages, family structures, thinking, and acting is completely different from those in Germanic Europe. Western people behold China as a “hardship country” (Björkman & Schaap, 1994, p. 148). Summarized, the GLOBE project shows that both cultures differ enormously. Therefore, adjusting to the Chinese culture should be quite difficult for German speaking expatriates and we presume that effects are observable. Hence, this is one aspect of our motivation for conducting the study in China.

Furthermore, China was chosen for several purposes. First, this country “has experienced the fastest rate of economic growth in the world, almost double the growth rate of other southeast Asian nations” (Tung & Worm, 1997, p. 138) and thus provides one of the largest future markets for German companies. Second, China is of major importance to German based companies. From 1995 to 2004 German exports to China rose annually on an average of about 16 percent. Likewise, the imports from China to Germany increased during the same period at about the same percentage rate (Statistisches Bundesamt, 2005). Third, the amount of direct investment in China, by German companies, has grown. Since 1999 Germany is the biggest European investor in China (Auswaertiges Amt, 2005). Hence, there are a large number of German subsidiaries and thus the number of German expatriates working and living in China has increased enormously in the last years. China has only a limited pool of skilled workers and managers although a large pool of labor is available (Kaye & Taylor, 1997). The major explanation for this lack of skilled workers is the Cultural Revolution from 1966 to 1976 where “a whole Chinese generation was denied access to education, and workers were rewarded for political and ideological allegiance, rather than for superior productivity” (Sergeant & Frenkel, 1998, p. 18). And finally, PricewaterhouseCoopers (2005) reported in its study that China is the country with the “highest anticipated growth over the next two years” (p. 3).

Criteria

Adjustment.

An academic as well as a practical interest exists in understanding the underlying psychological processes of expatriation and particularly adjustment. Adjustment to a new environment is one of the most researched phenomena in the expatriate management literature. Although Harzing (1995) argues that one has to be cautious with relying on the reported failure rates because they are mostly not based on empirical research, the transition of employees remains a challenge for both the company and the expatriate (Breiden, Mirza, & Mohr, 2004). Aycan (1997b) conceptualizes *adjustment* in the context of expatriation “as the degree of fit between the expatriate manager and the environment” (p. 1) both the work and non-work environment. Stahl and Caligiuri (2005) state more precisely that “adjustment can be conceptualized as changes in a direction of reduced conflict” (p. 603). Bhaskar-Shrinivas, Harrison, Shaffer, and Luk (2005) refer to adjustment as “the vital construct underlying the rewards and costs of expatriate experiences to individuals” (p. 257). Finally, we support the definition of Black (1990) who regards cross-cultural adjustment “as the degree of psychological comfort and familiarity of an individual with the new culture and situation” (p. 123).

Researchers use the terms adaptation, adjustment, and acculturation interchangeably. Therefore, we think it is necessary to clarify the terminology and explain why we choose to focus on adjustment. “Adaptation is the outcome of the acculturation process. Adaptation signifies changes in the expatriate in response to environmental demands. The process of adaptation can result in reaction, adjustment, or withdrawal” (Ones & Viswesvaran, 1997, p. 79). Aycan (1997b) presents four phases which take place in the acculturation process. These phases are sequential: (1) pre-departure preparation, (2) post-arrival initial contact, (3) appraisal and coping as well as (4) psychological and adjustment outcomes. Consequently, acculturation is regarded to be a process. Reaction, withdrawal, and adjustment are adaptation strategies to the new environment (Aycan, 1997b); the actual state of which can be measured at any time during the acculturation process.

Adjustment is defined by Ruben and Kealey (1979) as well as by Oberg (1960) and Torbiörn (1982) to be a unitary construct. Black, Mendenhall, and Oddou (1991) found support for the multidimensionality of adjustment. Therefore, some researchers used a single scale, whereas others used multiple scale measures to assess adjustment. Black et al. (1991) as well as Black, Gregersen, Mendenhall, and Stroh (1999) argue that individuals not only adjust to the general new environment but also to the work environment as well as to interacting

with host nationals. Hence, adjustment in these different areas does not necessarily go along with each other. Also, McEvoy and Parker (1995), Shaffer, Harrison, and Gilley (1999) as well as Mendenhall et al. (2002) support Black et al.'s (1991, 1999) three dimensions of overall adjustment and provide empirical evidence of its existence. These dimensions include: *Interaction adjustment*, which refers to the comfort associated with interacting with host country nationals (Black et al., 1991, 1999). *Work adjustment* is the degree to which the expatriate feels comfortable with the job and tasks including all job-related variables (Black, 1988). Finally, *general adjustment* describes the extent to which the expatriate feels comfortable with non-work factors such as living conditions, including, health care service, local food, housing, transportation, entertainment etc. (Black & Stephens, 1989). Black et al. (1991) as well as Mendenhall and Wiley (1994) further distinguish between anticipatory adjustment and in-country adjustment as two phases of adjusting to a foreign culture. *Anticipatory adjustment* happens before the expatriate leaves his/her home country. The degree of anticipatory adjustment depends on the availability of information about norms, values and behavioral rules of the host culture. Whereas, *in-country adjustment* consists of the three facets described above: interaction adjustment, work adjustment, and general adjustment (Black et al., 1991). In this study we focus on in-country adjustment.

Searle and Ward (1990) as well as Ward and Kennedy (1993) differentiate between socio-cultural and psychological adjustment. *Socio-cultural adjustment* describes the extent of the “ability to fit in and negotiate interactive aspects of the new culture” (Searle & Ward, 1990, p. 450). While *psychological adjustment* describes the subjective well-being, mood, or satisfaction of the expatriate with the life abroad (Searle & Ward, 1990).

Aycan (1997a, 1997b) regards both, the concept of Black et al. (1991) and the concept of Searle and Ward (1990) as being related. She states that interaction adjustment is similar to socio-cultural adjustment and general adjustment is similar to psychological adjustment (Aycan, 1997a, 1997b).

Likewise, Selmer (2004) differentiates between socio-cultural and psychological adjustment. He considers the three dimensional construct of Black et al. (1991) to be equivalent to socio-cultural adjustment. Consequently, he regards socio-cultural adjustment to be a broad dimension which includes work, interaction, and general adjustment as sub-dimensions. Since Selmer (2004) does not provide a clear definition of what is meant by the term ‘socio-cultural’ we refer to Webster’s Dictionary (1986) definition: the word connection ‘socio-cultural’ marks the close relationship between social and cultural aspects of social groups and their value systems. Being at work the expatriate has to adjust to the new work

environment by adapting to roles, values and norms and likewise to the social group at work. Looking at interaction adjustment as well as at general adjustment the expatriate has likewise to cope with the foreign cultural norms and values in order to adjust to the new culture. Therefore, we stick to Selmer's (2004) distinction and regard socio-cultural adjustment as a broader, higher level construct of the three sub-dimensions: work, interaction, and general adjustment. Further, we examine psychological adjustment by measuring the mood of the expatriates at particular points of time during the acculturation process. Therefore, psychological adjustment as adjustment over time is described below.

Adjustment over time.

Plenty of research has been conducted about the temporal process of adjustment to a new environment abroad (cf. Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2004; Gullahorn & Gullahorn, 1963; Lysgaard, 1955; Torbiörn, 1982). Several scholars suggest a U-curve pattern of adjustment (cf. Bhaskar-Shrinivas et al., 2004; Davis, 1971; Lysgaard, 1955; Ruben & Kealey, 1979; Torbiörn, 1982), first reported by Lysgaard (1955), which describes the level of adjustment changing over time (Church, 1982). Most all of the above mentioned authors use the widespread fundamental description of the '*U-curve theory*'. The description generally involves four stages. The initial stage is referred to as the *honeymoon stage*. In this stage, the individual is fascinated by the new environment, is optimistic, excited, and behaves in accordance to his/her frame of reference (Torbiörn, 1982). "The *frame of reference* includes all those values, attitudes, opinions, ideas, and knowledge which the individual has accumulated as a result of his experiences" (Torbiörn, 1982, p. 57/58). Oberg (1960) reported that the approximate length of this phase ranges "from a few days or weeks to six months" (p. 178). The duration depends on how soon the individuals are involved in close relationships with host nationals (Gullahorn & Gullahorn, 1963). The next stage, labelled as *culture shock* or *crisis*, is characterized by "negative emotional reactions experienced by sojourners as a result of the loss of familiar, culture-specific cues" (Ward & Searle, 1991, p. 209). The individual feels confused, frustrated, and inadequate due to not understanding the values and normative expectation of the host culture which results in expression of negative attitudes toward the host country and the search for contact with fellows (Black & Mendenhall, 1991; Gullahorn & Gullahorn, 1963; Oberg, 1960). When the individual becomes more familiar with the host culture and increases his/her language abilities, he/she enters the next phase called *recovery* or *adjustment* (Church, 1982; Oberg, 1960). The individual is open for the host culture and learns how to behave appropriately in the new country step by step (Black &

Mendenhall, 1991). Finally, the *adjustment* or *mastery* phase is the last stage in the U-curve theory. The individual “accepts the customs of the country as just another way of living” (Oberg, 1960, p. 179). The severity and duration of the adjustment process depends on the individual’s personality (Gullahorn & Gullahorn, 1963). Therefore, the length of the adjustment process over time varies between individuals (Haslberger, 2005). Depending on the author, the term adjustment is used to describe different phases of the process. In our paper we refer to the third phase as ‘recovery’ and to the last phase as ‘adjustment’.

Black and Mendenhall (1991) criticize that no theoretical framework is provided explaining the U-curve. Hence, they try to explain the curve by referring to the social learning theory of Bandura (1977). During the *honeymoon phase* expatriates pay attention to those elements which are familiar to them. As mentioned above, Torbiörn (1982) uses the term ‘frame of reference’ to explain the familiarity. Expatriates will behave in such a way which is appropriate to their home country but mostly inappropriate to the host culture which may lead to negative feedback. Likewise, it is imaginable that they do not understand the negative feedback of host nationals because the way of giving feedback differs from what they are used to (Black & Mendenhall, 1991). Chinese people for instance never express negative feedback directly whereas German people do. Further, “there is a relative lack of time for a large set of negative reinforcement to have accumulated during the initial encounter stage of adjustment, so individuals might *not* be compelled to recognize or “attend” to these negative consequences” (Black & Mendenhall, 1991, p. 237). Hence, they ignore the negative feedback due to the desire to keep their positive self-concept (Black & Mendenhall, 1991). As soon as the expatriates recognize the negative feedback they enter the *culture shock* stage. As explained by social learning theory people learn mainly from those models with which they can identify (Bandura, 1977). Therefore, those expatriates who have the possibility to mingle with host nationals will learn from them sooner; assuming the expatriate regards the model as attractive (Black & Mendenhall, 1991). The culture shock phase is followed by the *recovery phase*. Step by step the expatriates learn to behave in an appropriate manner. This in turn reduces negative feedback and increases satisfaction as well as feelings of self-worth in the expatriate (Black & Mendenhall, 1991). Finally, the expatriate compasses the *adjustment stage*.

Nevertheless, several researchers question the existence of a U-shaped curve (Chang, 1973; Furnham & Bochner, 1986; Golden, 1973; Klineberg & Hull, 1979; Ward, Okura, Kennedy, & Kojima, 1998). Black and Mendenhall (1991) suggest that adjustment over time may follow a J-shaped curve or a linear pattern. However, conducting a meta-analysis

Bhaskar-Shrinivas et al. (2004) showed that “duration of assignment does have a non-linear relationship with cultural adjustment, as the best-fitting empirical curve followed a general (although complex) U pattern” (p. 27). Having described adjustment and changes in adjustment over time, in the following part we will explain the construct of mood accordingly.

Mood

Some researchers use the terms mood and emotion interchangeably (Schmidt-Atzert, 1996). *Emotions* which are affective reactions are usually be viewed as caused by specific significant events (Frijda, 2004; Gendolla, 2000). They are based on a cause, of which one is aware (Abele, 1995). For example, if somebody is happy about something then he/she can say exactly why he/she is happy. In contrast, *mood* is a subjective condition of a person, which is nondirectional: the person does not know exactly why he/she is in a positive or negative mood (Silberer & Jaekel, 1996). The reason is, that mood results from a number of small single events, therefore mood is “not object related” (Gendolla, 2000, p. 379) and is considered to be an intrapersonal state (Frijda, 2004). “Moods are naturally influenced by, for example, the diurnal rhythm ... and the pleasantness of the environment in general” (Gendolla, 2000, p. 379). We expect that a large cultural distance leads to a multitude of impressions that influence the emotional state of an individual. Thus, it would be hard to single one aspect out. Consequently, we are interested in the construct mood and not in emotions because we do not want to know a specific emotion, rather the mood of individuals abroad. We stick to Parkinson, Totterdell, Briner, and Reynolds (1996) who define: “Mood reflects changing non-specific psychological dispositions to evaluate, interpret, and act on past, current, or future concerns in certain patterned ways” (p. 216).

Searle and Ward (1990) use subjective well-being as well as satisfaction to describe psychological adjustment. Similarly to emotion *satisfaction* relates to a specific person, event or object (Silberer & Jaekel, 1996) in contrast to mood, which is more general and broader. Some researchers like Torbiörn (1982) or Klineberg and Hull (1979) operationalized adjustment as satisfaction. *Subjective well-being* is “people’s emotional and cognitive evaluations of their lives, includes what lay people call happiness, peace, fulfillment, and life satisfaction” (Diener, Oishi, & Lucas, 2003, p. 403). Subjective well-being is of course much wider than mood and hence much more complex when it comes to understanding and measuring this construct. However, we elected mood, first, due to its overarching character, second, because we regard this construct in the context of psychological adjustment as important for expatriates for being effective on their overseas assignment. Additionally, we

would like to mention that Ward and Kennedy (1993) assess psychological well-being by using the Profile of Mood States (POMS) of McNair, Lorr, and Droppleman (1981). It must be mentioned that they regard subjective well-being as being equal to mood.

Summarizing, we refer to Selmer's (2004) distinction and examine *socio-cultural adjustment* by using Black et al.'s (1991) model, which has dominated the research literature and we examine *psychological adjustment* as adjustment over time which describes the mood of the expatriate with the life abroad.

Predictors

In the following section we present predictors for socio-cultural adjustment as well as psychological adjustment. We refer to personality and to context related variables such as support of the organization or language proficiency. If socio-cultural and psychological adjustment is related, it is likely that they can be predicted by the same variables. Ward and colleagues (1998) expect both concepts to be closely related but still distinct constructs. In order to get a more precise picture of how these concepts are related or differ, we will test each predictor in terms of its relation to both adjustment constructs.

Mendenhall, Dunbar, and Oddou (1987) argue that "the criterion of "technical knowledge" should be retained" (p. 337) as one selection tool for international assignments. But technical knowledge is not sufficient for adjusting successfully abroad. Therefore, on the following pages we want to analyze possible factors which are also important for the adjustment of future expatriates.

Personality.

The importance of personality characteristics as a predictor for the criterion adjustment has been discussed by many scholars (Caligiuri, 2000a; Deller, 1997, 2000; Ones & Viswesvaran, 1997, 1999). Individuals with different personalities may react in different ways to the new environment abroad and therefore may have different problems with adjustment.

In the literature, it is widely argued that personality is organized hierarchically (Digman, 1997; Hampson, John, & Goldberg, 1986; Markon, Krueger, & Watson, 2005; Ones, Viswesvaran, & Dilchert, 2005). The Big Five model of personality includes the following dimensions: Emotional Stability, Extraversion, Openness, Agreeableness, and Conscientiousness – it must be mentioned that these traits are sometimes named differently

(Goldberg, 1993). Digman (1997) researched that the Big Five dimensions Conscientiousness, Agreeableness, and Emotional Stability relate to a higher order factor, named as alpha, and Extraversion as well as Openness relate to a second higher order factor, named as beta. Despite the reported findings above we stick directly to the Big Five, because the higher order factors only “provide basic information about superordinate personality” (Markon et al., 2005, p. 154) and basic information are not sufficient for describing different personalities in our study abroad.

Therefore, we bear on the *Big Five* model of personality which is also referred to as the five-factor model. McCrae (2002) reported an extensive interest throughout the world in this model of personality and its application. McCrae and Costa (1989) define that “the five-factor model is a descriptive classification of traits into broad domains” (p. 451). They developed the Neuroticism, Extraversion, Openness - Personality Inventory (NEO-PI) which is based on the Big Five structure (Costa & McCrae, 1992). The inventory was revised and the new edition will be called NEO-PI-Revised (NEO-PI-R). The questionnaire assesses 30 personality traits, six facets for every broad dimension of the five-factor model. The broad factor *Emotional Stability* presents the difference between people who are robust in their emotions and those who are emotionally sensitive which will be regarded as Neuroticism (Ostendorf & Angleitner, 2004). People who are emotionally stable are better able to deal with stressful situations (Ones & Viswesvaran, 1997). *Extraversion* describes people who show gregariousness, warmth, positive emotions, assertiveness, and who are seeking excitement (Ostendorf & Angleitner, 2004). This factor is related to interpersonal interactions (Swagler & Jome, 2005). McCrae and Costa (1992) state that introverted people are not the opposite of extraverted people, because they are reserved rather than unfriendly. *Openness* to experience, also referred to as Culture or Intellect, characterizes people who have “imagination, curiosity, and creativity” (Goldberg, 1993, p. 27). The factor *Agreeableness* consists of traits such as altruism, trust or modesty. The counterparts are generally characterized by mistrustfulness or geocentricism (Ostendorf & Angleitner, 2004). Finally, the last factor called *Conscientiousness* describes people who are among other things dutiful or deliberate. As Ones and Viswesvaran (1997) reported Conscientiousness can also be called “will to achieve” (p. 70).

Digman (1997) states there are also criticisms of the five-factor model.

First, it has little to offer with regard to the causes of personality, because it is merely descriptive in nature. Second, because it is based on typical behavior, it cannot account for exceptions to these general traits, exceptions that are the effects of situations that depart from the usual. (p. 1246)

Despite the critics, we stick to the Big Five in our study for several reasons. First, a great deal of research has been done for formulating and evaluating the five-factor structure (McCrae & Costa, 1989) and to examine this model of personality (Goldberg, 1990; Digman, 1997). Second, a lot of studies examine the overlap of the Big Five (applying the NEO-PI) and other established personality inventories with the result that “the variance accounted for by the NEO-PI is high, the Big Five can be argued to be comprehensive” (Hough & Furnham, 2003, p. 134). Third, the factors of the Big Five model of personality are “dimensions of enduring dispositions that somehow find expression in every culture” (McCrae, 2001, p. 842). Therefore, the five-factor model of personality can be regarded as being similar across different cultures (Hough & Furnham, 2003; McCrae, 2001; Poortinga, van de Vijver, & van Hemert, 2002; Yang et al., 1999). Fourth, “many researchers have contributed evidence that the Big Five are robust and generalizable across different types of assessment, rating sources, cultures, language [sic], and genders as well as a variety of factor extraction and rotation methods” (Hough & Ones, 2005, p. 235).

The question is finally: Are we permitted to compare the personality structure of German speaking expatriates with reported results in the published research which are mainly based on studies with American students or employees abroad? Ostendorf and Angleitner (2004) adapted the American version of the NEO-PI-R to the German speaking countries over several years. Their goal was to accomplish an equivalent inventory with high congruency to the American version. As Poortinga et al. (2002) reported “inspection of factor content showed a reasonably good replication of all Big Five factors across Germanic languages” (p. 287). Summarized, they found evidence that the Big Five dimensions “can be recovered quite consistently across a broad range of literate societies” (Poortinga et al., 2002, p. 281), including Germany, Austria, and Switzerland.

As mentioned above, personality is an important characteristic for predicting adjustment (Caligiuri, 2000a; Deller, 1997, 2000; Ones & Viswesvaran, 1997, 1999).

Unfortunately, only little research has been done regarding the *Big Five as a predictor* for the criterion adjustment (cf. Caligiuri, 2000a; Deller, 1997; Shaffer, Harrison, Gregersen, Black, & Ferzandi, 2006; Swagler & Jome, 2005). Research on expatriate adjustment is confusing because different personality traits have been used for predicting expatriate adjustment. Ones and Viswesvaran (1997) reason the cause is an absence of an integrative framework and suggest therefore the five-factor model as “one potential organizing framework” (p. 69).

Emotional Stability

Mendenhall and Oddou (1985) regard the ability to reduce stress as a competency for the adjustment to a new culture. Those people who cope with stressful, ambiguous situations are better adjusted than counterparts who fail to cope, since being emotionally stable helps in coping with stressful situations. Consequently, expatriates who are less emotionally stable undergo a lot of stress in the new living and working environment abroad (Ones & Viswesvaran, 1997; Swagler & Jome, 2005). Conversely, expatriates who are high in Emotional Stability may be well-balanced and optimistic and may be able to overcome or respond with calmness to stressful situations. Deller (2000) as well as Swagler and Jome (2005) found significant correlations between Emotional Stability and adjustment. Ones and Viswesvaran (1997) assume that expatriates who are not able to overcome the daily life and interaction strains score low on Emotional Stability. This indicates that Emotional Stability facilitates general and interaction adjustment. Likewise, work adjustment is facilitated by the personality characteristic of Emotional Stability due to the fact that a new work environment is similarly associated with stress. Shaffer et al. (2006) reported a positive relationship between Emotional Stability and work adjustment. Thus, we posit the following:

Hypotheses 1a-b: Emotional Stability is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Extraversion

Significant correlations between Extraversion and psychological adjustment are reported by several researchers (cf. Searle & Ward, 1990; Swagler & Jome, 2005; Ward & Searle, 1991). Likewise, positive relationships with socio-cultural adjustment have been reported (Swagler & Jome, 2005). Also, Deller (2000) found positive correlations between Extraversion and self-ratings of adjustment. Furnham, Petrides, Tsaousis, Pappas, and Garrod (2005) observed that “extraverts were more likely to rate their relationships with their co-

workers as important for feeling happy at work” (p. 17). This indicates that people that score high in this personality dimension, enjoy the interaction with others (Costa & McCrae, 1992) which in turn facilitates interaction adjustment. Considering these findings we assume that people who are sociable, active, and communicative will adjust more easily to the interaction with host nationals. Hence:

Hypotheses 2a-b: Extraversion is a positive predictor of (a) interaction adjustment and (b) psychological adjustment.

Openness

Expatriates need to be open to new experiences if they want to be comfortable abroad. They should be able to establish new relationships, to accept unfamiliar work processes as well as new living conditions. Ones and Viswesvaran (1997) suspect that ‘Openness to experience’ “will be a particularly good predictor of acceptance of overseas assignment, adjustment to the new culture, and completion of expatriate assignment” (p. 83). Aycan (1997a) as well as Swagler and Jome (2005) assume that Openness facilitates cross-cultural adjustment. Unfortunately, Swagler and Jome (2005) did not report significant correlations. But Deller (2000) discovered significant correlations between Openness and the Alienation Adjustment Scale. Further, researchers discuss the willingness to communicate with host nationals (Black, 1990; Mendenhall & Oddou, 1985). Willingness to communicate can be explained by Openness as a personality characteristic (Caligiuri, 2000a). “Openness is further defined as one’s receptivity to learn and change in the new situation” (Caligiuri, 2000a, p. 65). Consequently, people who are high in Openness are less likely to have stereotype thinking in right and wrong but rather accept different values, norms, and behaviors of the new culture. Thus, we expect:

Hypotheses 3a-b: Openness is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Agreeableness

People who are high in Agreeableness can be characterized as being helpful, trustful, and modest. These are attributes which help to establish satisfactory relationships with others (Furnham et al., 2005). The ability of the expatriate “to form and maintain work and non-work social alliances is adaptive for his or her success on the assignment” (Caligiuri, 2000b,

p. 73). Deller (2000) found significant positive correlations between Agreeableness and other-ratings (supervisor) of adjustment. Also, Swagler and Jome (2005) reported significant correlations between Agreeableness and psychological as well as socio-cultural adjustment. Furnham et al. (2005) argue that Agreeableness is significant for building positive work relationships. Moreover, Ones and Viswesvaran (1997) assume that people high in this factor will receive more aid from their host colleagues. Taking all these findings into account, we do not suppose that people who are high in Agreeableness easily adjust to all facets of socio-cultural adjustment. We rather assume that Agreeableness is related to interaction adjustment. Thus, we suppose:

Hypotheses 4a-b: Agreeableness is a positive predictor of (a) interaction adjustment and (b) psychological adjustment.

Conscientiousness

Ones and Viswesvaran (1997) “do not expect conscientiousness to be relevant for adjustment” (p. 85). However, Deller (2000) found a significant positive correlation between this dimension of personality and self-ratings of adjustment. Further, Swagler and Jome (2005) who likewise did not assume any correlation found significant correlations with adjustment. Shaffer and colleagues (2006) assume that Conscientiousness is positively related to work adjustment. Shaffer et al. (2006) suppose that people who are diligent and self-disciplined may spend more time on job related tasks thus performing well, which in turn should result in work adjustment. We likewise support their assumption. Hence, the hypotheses are:

Hypotheses 5a-b: Conscientiousness is a positive predictor of (a) work adjustment and (b) psychological adjustment.

Context related variables.

Researchers (e.g., Kraimer, Wayne, & Jaworski, 2001; Shaffer et al., 1999) found that several factors besides personality such as demographic variables or environmental characteristics facilitate adjustment. Therefore, context variables like prior international experience or social support are examined with regard to their relations to facets of adjustment.

Language proficiency

More than twenty years ago Church (1982) reported that the most studied context variable besides biographical variables such as nationality or age is language proficiency as a predictor for expatriate adjustment. Nicholson and Imaizumi (1993) found that interaction adjustment is predicted mainly by fluency in the host country's language. Also Bhaskar-Shrinivas et al. (2004), Kraimer et al. (2001) as well as Shaffer et al. (1999) reported that host country language ability eased interaction adjustment but also general adjustment. In these studies, no correlation was found between language fluency and work adjustment. The strongest reported correlation across all these studies exists between interaction adjustment and language proficiency. Selmer (2004) states "interaction adjustment is largely based on linguistic ability" (p. 798). In contrast, Kraimer and Wayne (2004) also examined the influence from host country language proficiency on the expatriates' adjustment. Unfortunately, they did not fragment expatriate adjustment into interaction, general, and work pattern; although they measured them they only reported an influence of language proficiency on overall expatriate adjustment. Although Caligiuri (2000a) states that "language skills, are generally necessary for interpersonal communication and relationship building, and effective functioning at home and at work" (p. 68); she did not measure overall adjustment rather general adjustment. She noted a small correlation between language proficiency and general adjustment.

Taking all reported research findings into account, we assume that the greater the proficiency in host country language the easier the communication with host nationals which in turn facilitates the understanding of the host culture as well as reducing uncertainty. Fluency in the host country's language eases the interaction and general adjustment. Although, we did not find previous studies underlining the importance of language skills for work adjustment we think language skills facilitate work adjustment particularly in China. Even though young and well-educated people in China are familiar with English (Björkman & Schaap, 1994; Tung & Worm, 1997), it can be expected that only a small part of the

workforce has English skills. Hence, understanding Chinese may also help to understand the indirect communication style in China (Kaye & Taylor, 1997; Tung & Worm, 1997). Particularly, taking into account that provinces of China differ in their dialect. Therefore, we think Chinese language skills also facilitate work adjustment. We propose the following:

Hypotheses 6a-b: Language proficiency is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Prior international experience

Several researchers (e.g., Aycan, 1997a; Black, 1988; Church, 1982; Searle & Ward, 1990; Torbiörn, 1982) suggest that previous experience in living and working abroad may facilitate the adjustment in the current country. Taking into account that living and working in another culture is a stressful event it should be easier for people to adjust who have experience with overseas assignments than for those who do not have any experience. It can be assumed that expatriates with prior international experience are able to formulate a realistic picture about living and working abroad and therefore feel more confident, because “experienced expatriates are likely to have gone through trial-and-error processes of discarding ineffective coping strategies and retaining effective ones” (Shaffer et al., 1999, p. 562). Therefore, they are able to anticipate possible difficult situations abroad and to cope with them by using developed relocation skills (Bhaskar-Shrinivas et al., 2004; Black et al., 1991). Whereas, those without international experience may have only experienced short interesting business travels abroad with a life in a hotel and organized arrangements during the whole business journey. Thus, we hypothesize the following:

Hypotheses 7a-b: Prior international experience is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Culture novelty – Confucian Asia

Culture novelty can be defined as the perceived discrepancy between home and host culture. We suppose the greater the distance between the home and the host culture the more the expatriate has to learn in order to understand the values, norms, and behaviors of host nationals. As Björkman and Schaap (1994) reported China is “different from most countries ... the overseas experience gained elsewhere may therefore be of limited direct help in China” (p. 150). Therefore, we suspect that expatriates who had prior contact within the Confucian

Asia cluster which consists of China, Hong Kong, Japan, Singapore, South Korea and Taiwan (Gupta & Hanges, 2004) should adjust more easily when compared to those who are newcomers. As Torbiörn (1982) reported cultural novelty mainly has an impact on expatriates for the first two years. Thus, we suppose:

Hypotheses 8a-b: Prior international experience within the Confucian Asia cluster is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Cross-cultural training

Pre-departure training facilitates adjustment and cross-cultural interaction because the expatriate receives necessary information and learns appropriate behavior in the host culture (Black, 1988). Several researchers ascertain that expatriates are not well prepared for their tasks in China (Kaye & Taylor, 1997; Sergeant & Frenkel, 1998; Tung & Worm, 1997). Kealey, Protheroe, MacDonald, and Vulpe (2005) state that “cross-cultural training ... has no doubt been generally effective in equipping personnel with most of the knowledge and skills needed to live and work successfully in another culture” (p. 289). Pre-departure training is essential for all three facets of socio-cultural adjustment simply because the expatriate gets helpful suggestions for all facets of living and working abroad. We hypothesize:

Hypotheses 9a-b: Cross-cultural training is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Initiative

Deller (2000) argues that most expatriates are sent abroad not because of their own initiative rather at the request of the employer. He reported that 53.7% of the expatriates were sent abroad because of the initiative of the employer. Although, we did not find other previous studies underlining the importance of initiative we consider initiative to be an important predictor for adjustment. We presume that people with their own initiative are more motivated and therefore more willing to learn the appropriate behavior resulting in adjustment. Therefore, we suggest:

Hypotheses 10a-b: Self-initiative is a positive predictor of (a) socio-cultural adjustment and (b) psychological adjustment.

Support of co-workers

As van Vianen et al. (2004) state expatriates may feel better adjusted if they get social support of host nationals. Black et al. (1991) as well as Bhaskar-Shrinivas et al. (2004) suggest that social support will provide the expatriate with necessary information about the work role and work expectancies. Taking this into account it should reduce uncertainty and in turn facilitate work adjustment of the expatriate. Nevertheless, Shaffer et al. (1999) reported that social support of co-workers facilitates interaction adjustment whereas supervisor support does not facilitate any adjustment dimensions. Likewise, Aryee and Stone (1996) reported that co-worker support is positively related to adjustment, not to interaction adjustment, rather to work adjustment. According to all these findings, we also expect that support of host co-workers facilitates work adjustment. We do not expect a significant correlation between social support of supervisor and work adjustment, because the most supporting part is taken by colleagues. Therefore:

Hypotheses 11a-b: Satisfaction with the social support of co-workers in the host country is a positive predictor of (a) work adjustment and (b) psychological adjustment.

Logistical support

Black et al. (1991) expect that support of the organization regarding housing, schools, and so on, may facilitate adjustment because it reduces uncertainty. They assume that logistical support facilitates interaction and general adjustment rather than work adjustment, because it deals with challenges outside work. Shaffer et al. (1999) also expect that logistical support is positively related to interaction and general adjustment. They only found support for interaction adjustment. Likewise, we assume that logistical support, mostly provided by the Human Resource (HR) department is positively related to interaction and general adjustment, rather than to work adjustment. Researchers often do not differentiate between logistical support provided by the home or host company. We assume that the logistical support of the host company is much more important for expatriates particularly in China. During the first time in China, the organizational support of the host HR is helpful to clarify specific problems e.g., with public authorities or with housing, which the expatriate usually cannot handle due to his/her language problems or his/her nescience on how to handle such things in the foreign country. Likewise, during the assignment the HR management of the host company can more easily handle specific problems arising abroad. As McEvoy and

Parker (1995) suggest the organizational support of the home company may become important particularly for the repatriation during the later stage of the assignment. Therefore, we suggest:

Hypotheses 12a-c: Satisfaction with the logistical support of the HR management in the host country is a positive predictor of (a) interaction adjustment, (b) general adjustment, and (c) psychological adjustment.

Support of other expatriates

Caligiuri (2000a) assumes that “expatriates who spend time interacting with other people in the host country (not just host nationals) may have greater opportunity to learn about aspects of daily living (e.g., where to shop, the best providers of medical care) and develop a support network of friends” (p. 75). The important detail of Caligiuri’s (2000a) sentence is written in the first parenthesis. She suggests that *other expatriates* could help to adjust to the general environment. Tung and Worm (1997) asked their interviewees for the mechanisms which helped them to adjust to the Chinese culture. The reported mean indicates that “socializing primarily with other expatriates” (Tung & Worm, 1997, p. 146) was perceived to be more helpful than “socializing primarily with host country nationals” (Tung & Worm, 1997, p. 146). Likewise, Wang and Kanungo (2004) suppose “socializing only with local partners is not sufficient for the expatriate to adjust to the local environment” (p. 787). Also Aycan (1997a) states that “the socialization process with other expatriates is helpful in reducing the stress of adjustment” (p. 451). Therefore, we expect that support of fellows is helpful to exchange experience, to give advice, feedback, as well as emotional support, and to feel a little bit homelike (Furnham & Bochner, 1986). Altogether this support source seems to be necessary to reduce frustration in expatriates (Wang & Kanungo, 2004). We propose the following:

Hypotheses 13a-b: Support of other expatriates is a positive predictor of (a) general adjustment and (b) psychological adjustment.

Contact with host nationals in the leisure time

Mendenhall et al. (1987) argue that “the degree of integration within the host culture ... is necessary for the successful completion of the overseas assignment” (p. 339). As Bandura (1977) suggests, people are able to learn from others by observing them. It seems to

be logical that expatriates who have extensive contact to host nationals in their leisure time will be better adjusted compared to those without. As mentioned above, people mainly learn from models with which they can identify (Bandura, 1977). People who identify with others normally share common interests, such as hobbies or occupational activities; relational ties exist. Van Vianen et al. (2004) argue that “sharing basic values will encourage the interactions with host nationals” (p. 699). We suppose that people will be able to learn more and faster culturally appropriate skills when interacting with host nationals, assuming that the host model is attractive to the expatriate. We presume that expatriates with a considerable amount of contacts will show a greater culture shock (which is reflected by the lowest point of the curve) because they will be more confronted with their inadequate behavior compared to expatriates with less contact to host nationals. We suppose the more and deeper the contact to hosts, the more the culture shock due to the fact that the expatriate is immersed in the new culture. Thus, we hypothesize:

Hypotheses 14a-b: Contact with host nationals in the leisure time is a positive predictor of (a) interaction adjustment and (b) psychological adjustment.

Mood curve.

As reported above, lots of research has been conducted about the shape of adjustment over time (cf. Bhaskar-Shrinivas et al., 2004; Gullahorn & Gullahorn, 1963; Lysgaard, 1955; Torbiörn, 1982). Some researchers suppose that adjustment over time follows a U-curve pattern; based on the ‘U-curve theory’ which involves four stages, named as follows: honeymoon, culture shock, recovery, and adjustment (cf. Bhaskar-Shrinivas et al., 2004; Davis, 1971; Lysgaard, 1955; Ruben & Kealey, 1979; Torbiörn, 1982). However, some scholars question the existence of a U-curve pattern (cf. Chang, 1973; Furnham & Borchner, 1986; Golden, 1973). Nevertheless, we suggest that psychological adjustment follows a U-shaped curve. We assume that psychological adjustment increases during the honeymoon phase, followed by the decrease of psychological adjustment (culture shock) and finally recovery and adjustment occur. Thus, we suppose:

Hypothesis 15: Psychological adjustment follows a U-shape over time.

Method

Participants

To recruit participants several sources were used. First, the German Chamber of Industry and Commerce in China was addressed to seek their assistance in this study. They supported the study by sending a database with contact information about all German organizations and companies resident in China via email. Although this registry is not exhaustive, the directory contains over 600 companies. We addressed all companies with a German or English speaking contact person and an available email address. Taking into account that most of the emails did not reach the addressee, of the 144 mails sent out, 19 were returned, which equals a response rate of 13.2%. Second, we used a business web based platform for getting in touch with German speaking expatriates (including Germans, Swiss as well as Austrians) in China. We contacted 190 business people working primarily in Shanghai. Thus, although the companies' response rate was low, the subject response rate with 102 (54%) was much higher. Finally, we used field connections. Altogether the sample consisted of 139 German speaking expatriates (five were Swiss and only one was Austrian) on temporary assignment in China, representing a variety of industries (i.e., automotive, financial services, information technologies, chemicals, pharmaceuticals).

Several important demographic variables were collected during the interview. The majority ($N=110$, 79.1%) of interviewees were male and on average they had spent two and a half years in China at the time of the interview. Participants' ages ranged from 24 to 63, the average was 36 years ($SD=7.2$). Although, more than twenty years ago, Church (1982) postulated that expatriates are "generally older and more mature" (p. 546), Björkman and Schaap (1994) reported a distribution of age of expatriates in China that resembles the one in our study. Tung and Worm (1997) reported in their study about European expatriates in China that nearly 70% "of the respondents were between the ages of 20 and 35 years" (p. 141).

Seven percent of the participants grew up outside of Germany. Likewise, the same percentage reported having grown up in a binational household. Eighty percent of the interviewees were married (48.9%) or were in a permanent relationship (30.9%) and 14.4% of them did not have their partner in China. One fifth of the partners hold the Chinese nationality and 64% were of German, Austrian or Swiss nationality (16% another nationality). Only 39 interviewees reported to have children and five of them reported that they do not live with them in China. Eighty seven percent of the expatriates hold a university or an equivalent degree as highest qualification; nine percent of the interviewees reported to have a doctoral

degree as their highest education level. The other four percent reported to have a high school degree (1%) or other kinds of education degree (3%) as highest education level. The total time of working in the country of assignment ranged from one to 135 months at the time of the interview. On the one hand we found that the majority of contracts are for a limited time period (76.3%). Resembling the numbers that are reported in the literature for the average period of assignment for expatriates to be between three to five years (Tung, 1988), most of the interviewees reported to hold 36, 48 or 60 months contracts. On the other hand 23.7% of the contracts were unlimited or automatically extended. Of the total sample 28.1% were CEO's of the local unit, 51.1% filled a position as manager and the remaining others a position as technical specialist (e.g., for a certain project task).

Measures

To examine the importance of personality variables and context variables for the adjustment of expatriates, a structured interview guideline was designed by the research team. This questionnaire was conceived in German due to the fact that our intention was to survey German speaking expatriates. In accordance to the school grading system in Germany, rating scales for the designed context related items as well as adjustment items range from one which indicates a very positive value to five which indicates a very negative value. To compare these data with the reported data in the research literature which based on the US format (1 = very negative and 5 = very positive) we recoded our data reverse.

Predictor measures.

NEO-PI-R

The NEO-PI-R is a paper-pencil measurement based on the five-factor model of personality, which measures: Emotional Stability, Extraversion, Openness, Agreeableness, and Conscientiousness (Costa & McCrae, 1992; Ostendorf & Angleitner, 2004). The NEO-PI-R is based on lexical findings of personality psychology and measures 30 facets as sub-dimensions of the Big Five. Each facet is assessed by eight items, hence each dimension comprises 48 items and the whole questionnaire comprises 240 items. Forty-four percent of the items are reverse coded (Ostendorf & Angleitner, 2004). Items are rated on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Three control questions assess if the person answers all questions, and if he/she answers the questions honestly and correctly. The NEO-PI-R can be used as self-evaluation or as other-evaluation. For our

purpose we used the self-evaluation. We applied the German version of the NEO-PI-R which was adapted by Ostendorf and Angleitner (2004) for German speaking countries over several years. The duration generally takes 40 minutes. The congruency of the German version to the original version has been proven and reliabilities for the Big Five dimensions range from .87 to .92 (Muck, 2004; Ostendorf & Angleitner, 2004).

Context related variables

We examine the context related variables by using a structured questionnaire. This questionnaire started with biographical data such as gender, age, education; followed by context-related variables such as language ability (Do you speak Chinese? If yes, how well? – Sprechen Sie chinesisches? Wenn ja, wie gut?), previous international experience (Have you already worked, before your assignment to China, abroad? If yes, in which countries? – Haben Sie bereits vor Ihrer Entsendung nach China im Ausland gearbeitet? Wenn ja in welchen Ländern?), or support of other expatriates (How much support do you receive from other expatriates? – Wie viel Unterstützung erhalten Sie durch andere Expatriates?).

Criteria measures.

Socio-cultural adjustment

Black et al. (1991, 1999) developed an adjustment model which consists of three dimensions, named as follows: interaction, work, and general adjustment. Likewise, in our study we refer to this model due to the fact that researchers delivered evidence for its existence (cf. McEvoy & Parker, 1995; Shaffer et al. 1999; Mendenhall et al., 2002). We generated one item for each dimension which we formulated as self-ratings in German (see Appendix A1) and as other-ratings in German (see Appendix A2) as well as in English (see Appendix A3). Likewise, we phrased one item to measure overall adjustment. Therefore, the adjustment measure consists of 4 items for self-ratings as well as for other-ratings.

Psychological adjustment

We operationalized psychological adjustment in terms of the individuals' mood. Our intention is to measure changes in the mood from the year before assignment to the end of the second year abroad. In order to measure changes in mood, the German speaking expatriates plotted a curve concerning their moods over time. The vertical axis represents the degree of adjustment and the horizontal axis represents the time. We decided to split the year into quarters (x-axis). Therefore, the expatriates plotted at three monthly intervals, four mood

points for every year. We considered this procedure as applicable taking into account that the accurate capacity of memory is limited. The time is mapped on the x-axis from 0/4 to 2/4. The number before the diagonal slash labeled the year (0 = the year before assignment, 1 = first year in China, 2 = second year in China) and the number after the diagonal slash labeled the quarter (1-4). Mood values (y-axis) are on a 5-point Likert-scale from 1 = very negative to 5 = very positive. First, the expatriates plotted the mood for the four quarters before they came to China. Second, they plotted the eight mood-time-points for the first two years in China respectively (see Appendix B).

Procedure

After agreeing to support our study interviewees were asked to fill out the web based Occupational Personality Questionnaire (SHL, 2001) prior to the interview, by using the link which they received via email. For those who did it we were able to give feedback concerning their occupational personality as an incentive for taking part in our study. All participants were promised that their individual responses would remain confidential and were being collected only for research purposes. First of all, the expatriates were asked to plot a retrospective curve of their psychological adjustment over time. In the next step, demographic figures as well as information concerning e.g., language skills, work experience abroad, cross-cultural training, support of the company as well as support of co-workers were collected via a structured questionnaire followed by the measurement for personality named NEO-PI-R (Costa & McCrae, 1992; Ostendorf & Angleitner, 2004). Finally, participants completed the self-ratings of interaction, work, and general adjustment. At the end of the interviews they were asked to give a blank rating-sheet for adjustment to a supervisor, colleague, or employee. Another method was that the interviewer gave the survey directly to the selected other or sent the questionnaire to them via mail. Likewise, this person was promised that their responses would be kept confidential. When the Occupational Personality Questionnaire (SHL, 2001) was completed online prior to the interview, the interviewees got the feedback on their occupational personality after finishing the face-to-face interview. The duration of the interviews was on average one and a half to two hours.

Results

In the following section we first start with the explanation of the correction for measurement error. Second, we argue why we do not report statistical significance tests for the analyses. Third, we compare adjustment ratings of other-ratings to ensure that there is no effect which bias our results. And finally, results of our study in China will be reported.

Correction for range restriction and unreliability

Correcting correlations for range restriction as well as for unreliability is common and well accepted in research. *Correcting for range restriction* in the predictor is necessary, because “the effects of sample selection processes that result in an observed sample ... [are] not representative of the population of interest” (Sackett & Yang, 2000, p. 112). Our study aims to give advice for the selection of future expatriates in China. However, we were interviewing current German speaking expatriates in China and not future expatriates. Further, all of our interviewees participated voluntarily, which likewise restricted our sample. Due to the fact, observed correlations from our sample are likely to deviate from the population of interest, we corrected for range restriction in the predictor NEO-PI-R by using the following formula:

Figure 1. Correction for range restriction

$$\hat{p}_{xy} = \frac{\left(\frac{S_x}{s_x}\right)r_{xy}}{\sqrt{1 + r_{xy}^2\left(\frac{S_x^2}{s_x^2} - 1\right)}}$$

S_x	Standard deviation for variable x for the unrestricted population
s_x	Standard deviation for variable x for the sample (restricted population)
r_{xy}	Correlation between x and y obtained from the restricted sample

(Sackett & Yang, 2000, p. 114)

Unfortunately, we were not able to correct for range restriction for other predictors due to the lack of given standard deviations for the unrestricted population of the other predictors.

Multi-source ratings from colleagues, employees, or supervisors are an often used method for measuring job performance, with peers and supervisors being the two most common sources of ratings (Viswesvaran, Schmidt, & Ones, 2002). We adopted this method

for measuring the adjustment of our expatriates. Mostly, performance ratings do not show sufficient interrater reliabilities (Viswesvaran, Schmidt, & Ones, 1996). “Low-reliability results in systematic reduction in the magnitude of observed relationships and can therefore distort theory testing (Viswesvaran et al., 1996, p. 557). Likewise, we assume that the adjustment ratings also do not show sufficient reliabilities taking into account that the type of questions with which performance will be measured in general is similar to the type of questions with which we measured adjustment. Viswesvaran et al. (1996) point out that “in personnel selection; the use of interrater reliabilities to correct criterion-related validity coefficients for unreliability in job performance ratings may result in substantial downward biases in estimates of actual operational validity” (p. 565). Interrater reliability can be defined as the extent to which raters agree on the performance or in our case on the adjustment of different expatriates. Consequently, we use the reported mean interrater reliability of .52 of supervisory ratings of overall job performance by Viswesvaran et al. (1996) for *correcting for criterion unreliability* in other-ratings. Other-ratings in our study are not only obtained from supervisors but also from colleagues or employees. Hence, a second question comes up: Are we allowed to use the mean interrater reliability of .52 for correcting all other-ratings? Findings of Viswesvaran et al. (2002) hallmark that:

The moderating effect of the rating content on the convergence between peer and supervisor ratings is not as strong as it is implied by some cognitively based hypotheses (e.g., evaluation difficulty) proposed to explain the rating processes. Our findings are also consistent with the conclusions of Mount et al. (1998) that source effects (e.g., peer, supervisors) are not strong in ratings. (p. 351)

Thus, we correct all other-ratings with the value of .52. We compute:

Figure 2. Correction for unreliability

$$r_{corr} = \frac{r_{xy}}{\sqrt{.52}}$$

r_{xy} Correlation between x and y

(Viswesvaran et al., 1996)

Point estimates of effect size

“What is wrong with NHST [Null Hypothesis Significance Testing]? Well, among many other things, it does not tell us what we want to know, and we so much want to know what we want to know that, out of desperation, we nevertheless believe that it does!” (Cohen, 1994, p. 997). The test of significance indicates the probability for the null hypothesis will be true provided that the null hypothesis is correct. But significance testing does not provide evidence of which hypothesis is to be accepted or rejected. We can not use significance tests as decision guidance because we do not know about the trueness of the null hypothesis (Cohen, 1994; Schmidt, 1992, 1996). The “appropriate statistics are point estimates of effect size and confidence intervals around these point estimates” (Schmidt, 1996, p. 116). Hence, we report point estimates of effect size and the confidence intervals around them. The effect size provides evidence about the size of a relationship between variables. “The larger this value [the effect size], the greater the degree to which the phenomenon under study is manifested” (Cohen, 1988, p. 10)¹. We report the effect size r , in the form of Pearson product-moment correlation coefficient which expresses the relationship between two variables. The correlation coefficient is well known; therefore we do not represent the formula. We will consider correlations around *.10 as small*, around *.30 as medium or moderate* and around *.50 as large* (Cohen, 1988). Furthermore, we report the effect size d , also named *Cohen’s d*, which analyzes the size of mean differences between two groups. The value d “provides an answer to such questions by expressing score distances in units of variability” (Cohen, 1988, p. 21). We use the value d to analyze psychological adjustment measured by the mood curve.

Figure 3. Cohen’s d

$$d_{xy} = \frac{\bar{x}_x - \bar{x}_y}{\sqrt{\frac{(n_x s_x^2) + (n_y s_y^2)}{n_x + n_y}}}$$

\bar{x}_x, \bar{x}_y population means of either population
 n_x, n_y number of members of either population
 s_x, s_y standard deviation of either population

(Cohen, 1988)

¹ For more information on statistical reasoning please contact the author.

In order to analyze the mood curves in relation to personality we split the groups in people who are high in a special Big Five dimension and those who are low in a special Big Five dimension according to the norms of Ostendorf and Angleitner (2004). The same holds true for context related variables. We differentiate between expatriates who score high and low in a special context variable according to our Likert-scale. Further, we follow the practical recommendation by Cohen (1988) and consider *d*-values around .20 as *small*, those around .50 as *medium or moderate* and around .80 as *large*.

Cohen (1988) reports the following formula which converts the *d*-values in *r*-values. Thus, we additionally report *r*-values for facilitating the readers' understanding.

Figure 4. *d*-values in terms of *r*-values

$$r_{xy} = \frac{d_{xy}}{\sqrt{d_{xy}^2 + \left(\frac{1}{p \times q}\right)}}$$

d_{xy} Cohen's *d* – effect size between x and y
 p Proportion of x's in combined x and y populations
 $q = 1 - p$ (i.e. proportions of y's)

(Cohen, 1988)

Support for the hypothesized relationships is established when the 95% confidence interval does *not* include zero. Those point estimates and their surrounding intervals are marked in *bold* numbers in the following tables. In the case that the confidence interval includes zero the reported point estimate is not statistically significant and therefore is not highlighted in bold numbers.

Comparing other-ratings of adjustment

The adjustment ratings consist of self- as well as other-evaluation. The other-ratings could be given by German observers, Chinese observers, or observers of other nationalities. In our study we obtained ratings from 45 German observers, 14 Chinese observers and ten observers of other nationalities. We computed *Cohen's d* to guarantee that the variance within the ratings is not the result of the observer's culture. Comparing German ratings with Chinese ratings we found a small difference between the two groups ($d = -.24$, lower bound = $-.49$ & upper bound = $.00$). As can be seen the confidence interval spans to zero therefore, we use great caution when considering that the negative *d*-value reflects that higher ratings of adjustment were given by Chinese raters. Likewise, comparing German ratings with ratings of

other nationalities we found a nearly moderate difference ($d = -.45$, lower bound = $-.67$ & upper bound = $-.24$). As above, the negative d -value reflects that higher ratings of adjustment were given by raters of other nationalities. There is almost no difference between Chinese raters and raters of other nationalities ($d = -.15$, lower bound = $-.55$ & upper bound = $.25$). It is to note that adjustment was rated higher by Chinese and other nationalities than by Germans. Taking into account the confidence interval spans to zero (comparing German ratings with Chinese ratings), we cannot definitely say that there is a difference in ratings.

Likewise, we want to ensure that variance in the ratings is not due to the raters' job status. We received 34 supervisor, 24 colleague and 12 employee ratings. We observed effect sizes by comparing supervisor ratings with colleague ratings ($d = .33$, lower bound = $.10$ & upper bound = $.57$). The positive d -value demonstrates that higher ratings of adjustment were given by supervisors. Comparing colleague- and employee-ratings we likewise found a small difference ($d = -.31$, lower bound = $-.62$ & upper bound = $.00$). As can be seen, the confidence interval spans to zero therefore, we likewise use great caution when accepting that the negative d reflects that higher ratings of adjustment were given by employee raters. We did not find a difference between supervisor- and employee-ratings ($d = -.01$, lower bound = $-.30$ & upper bound = $.29$). It seems to be that adjustment was rated higher by supervisors and employees than by colleagues. However, we found only a small d -value when comparing supervisors and colleagues, and equally a small d -value when comparing colleagues and employees. Therefore, we are not able to make a clear statement.

In the following section we report criteria-related results of our study in China. Table 1 represents descriptive statistics of the variables included in the study. Nunnally (1978) argues that "one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of .70 or higher will suffice" (p. 245). As can be seen in the following table the reported reliabilities of criteria and predictors in our study are all above .70. According to Nunnally (1978) we can conclude that our measures are reliable. Means of overall adjustment ratings demonstrate that other raters regard expatriates as better adjusted (4.27) than the expatriates regard themselves (3.95). Nevertheless, the means indicate that the expatriates perceive themselves to be well adjusted.

Table 1. Descriptive statistics

Variable	N of Items	Reliability	<i>n</i>	Mean	<i>SD</i>
<i>Criteria</i>					
Overall adjustment self-rating ^a	4	.75	139	3.95	.20
Work adjustment self-rating ^b	1		139	3.81	.71
Interaction adjustment self-rating ^b	1		139	3.76	.73
General adjustment self-rating ^b	1		139	4.21	.79
Overall adjustment other-rating ^a	4	.87	67	4.27	.04
Work adjustment other-rating ^b	1		67	4.31	.78
Interaction adjustment other-rating ^b	1		68	4.22	.91
General adjustment other-rating ^b	1		68	4.29	.86
Psychological adjustment ^{a, c}	12	.78	60	3.75	1.05
<i>Predictors</i>					
Emotional Stability ^a	48	.91	135	1.45	.47
Extraversion ^a	48	.88	135	2.51	.44
Openness ^a	48	.87	135	2.58	.39
Agreeableness ^a	48	.88	135	2.31	.48
Conscientiousness ^a	48	.90	135	2.56	.48
Language proficiency ^b	1		139	1.68	1.52
Prior international experience ^{b, d}	1		139	.94	1.43
Culture novelty ^{b, e}	1		139	.09	.33
Cross-cultural training ^b	1		139	1.61	.49
Initiative ^{b, f}	1		139	-	-
Support of co-workers ^b	1		137	3.88	1.00
Support Human Resources ^b	1		92	3.09	1.13
Support of other expatriates ^b	1		139	3.57	1.12
Contact with host nationals ^b	1		139	2.65	1.13

^a Reliability is reported as Cronbach's alpha.

^b No reliability is reported for single items.

^c Number of expatriates who have been living and working for two years in China.

^d Number of previous international assignments.

^e Number of Confucian Asian countries expatriates have worked in before.

^f No mean and standard deviation can be reported because it was measured as nominal data.

Personality

Emotional Stability

As can be seen in table 2, the hypothesis 1a on the relationship between Emotional Stability and socio-cultural adjustment can be partially confirmed. Emotional Stability shows a moderate correlation with self-ratings but no correlation between other-ratings of adjustment.

Table 2. Emotional Stability: Correlates of socio-cultural adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Emotional Stability ^b	135	.36	.18	.52	66	-.05	-.45	.34

^a Correlations are corrected for unreliability in the criterion

^b Correlations are corrected for range restriction in the predictor
Uncorrected correlations can be found in appendix C

Further, we expected Emotional Stability to be a positive predictor of psychological adjustment (hypothesis 1b). Therefore, we supposed that expatriates who score high in Emotional Stability are in a better mood over time than those who score low in Emotional Stability. We found considerable effects along the mood curve which can be seen in the following table and figure. Table 3 shows that the *d*-values are consistently positive. The largest difference is obvious in the first quarter of the second year ($d = 1.68$). The means differ by more than one and a half standard deviation. Finally we can fully confirm hypothesis 1b.

Table 3. Emotional Stability: *d*-values and *r*-values
High vs. Low

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	95	.85	.79	.91	.20
	0/2	95	.63	.51	.75	.15
	0/3	95	.22	.03	.42	.05
	0/4	95	1.18	1.10	1.25	.27
<i>First year in China</i>	1/1	95	.57	.43	.70	.14
	1/2	93	1.03	1.02	1.04	.24
	1/3	86	1.17	1.09	1.25	.29
	1/4	73	1.56	1.23	1.90	.34
<i>Second year in China</i>	2/1	62	1.68	1.22	2.14	.38
	2/2	51	1.03	1.01	1.05	.27
	2/3	40	1.21	1.07	1.36	.30
	2/4	37	.78	.65	.91	.21

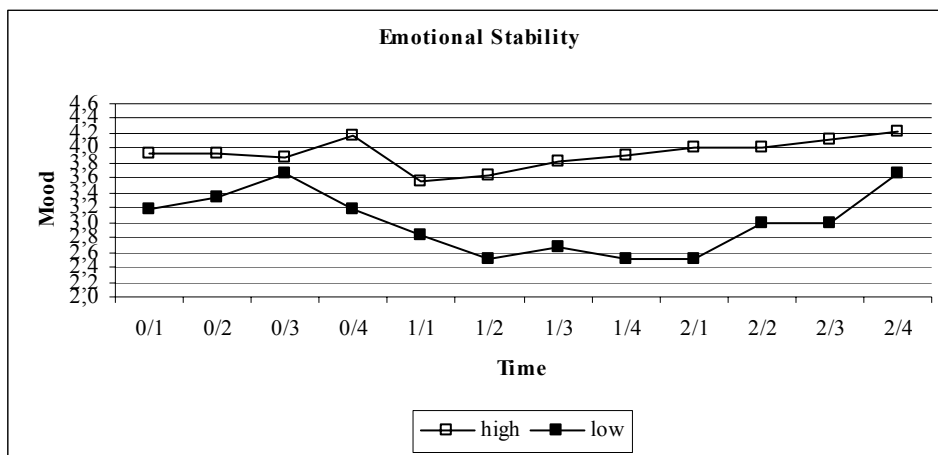


Figure 5. Emotional Stability

Graph of effect of mood on the relationship between high Emotional Stability and low Emotional Stability.

Extraversion

Hypothesis 2a suggested a positive correlation between Extraversion and interaction adjustment. We did not find any significant correlation between interaction adjustment and self- as well as other-ratings. Mentionable is the correlation with other-ratings, as can be seen in table 4 the confidence interval span is from .00 to .71.

Table 4. Extraversion: Correlates of interaction adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Extraversion ^b	135	.09	-.10	.29	66	.36	.00	.71

^a Correlations are corrected for unreliability in the criterion

^b Correlations are corrected for range restriction in the predictor

Uncorrected correlations can be found in appendix D

Comparing expatriates who are high in Extraversion and those who are low in Extraversion we computed the following *d*-values as well as *r*-values which can be seen in table 5. Positive *d*-values are observed for the first two quarters in the year before expatriation as well as from the second quarter of the first year in China to the end of our examination. The reported *d*-values range from .28 to .96. Hence, expatriates who are high in Extraversion are in a better mood over time with the exception of the first quarter abroad (see figure 6).

*Table 5. Extraversion: d-values and r-values
High vs. Low*

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	84	.76	.67	.85	.31
	0/2	84	.62	.49	.75	.26
	0/3	84	.21	.00	.41	.09
	0/4	84	.21	.00	.41	.09
<i>First year in China</i>	1/1	84	-.05	-.26	.17	-.02
	1/2	82	.35	.15	.54	.15
	1/3	76	.28	.07	.49	.12
	1/4	66	.96	.94	.98	.38
<i>Second year in China</i>	2/1	56	.94	.91	.97	.37
	2/2	48	.58	.38	.77	.25
	2/3	41	.56	.35	.77	.25
	2/4	37	.80	.68	.92	.36

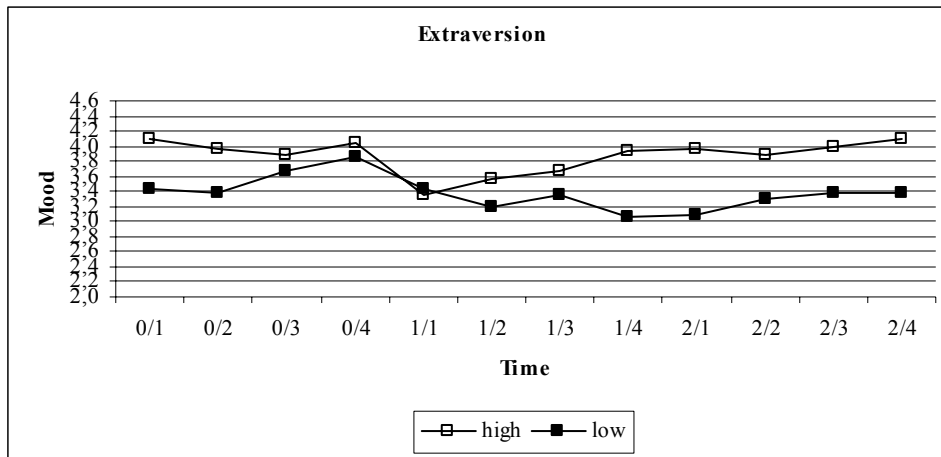


Figure 6. Extraversion
Graph of effect of mood on the relationship between high Extraversion and low Extraversion.

Openness

According to hypothesis 3a, the Big Five factor Openness was expected to correlate positively with socio-cultural adjustment. We observed a positive relationship between Openness and self-ratings of socio-cultural adjustment. No significant correlation was found with other-ratings of overall adjustment.

Table 6. Openness: Correlates of socio-cultural adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Openness ^b	135	.28	.10	.46	66	.13	-.25	.51

^a Correlations are corrected for unreliability in the criterion

^b Correlations are corrected for range restriction in the predictor

Uncorrected correlations can be found in appendix E

We expected Openness to be a positive predictor of psychological adjustment (hypothesis 3b). As can be seen in table 7, psychological adjustment is not related to Openness over time. We observed only a small significant effect size for the second quarter of the first year in China. Therefore, German speaking expatriates who differ in Openness do not differ in their mood. Figure 7 graphically displays the effect of mood on the relationship between high Openness and low Openness.

Table 7. Openness: *d*-values and *r*-values
High vs. Low

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	78	.10	-.12	.32	.05
	0/2	78	.11	-.11	.33	.06
	0/3	78	-.05	-.27	.18	-.02
	0/4	78	.15	-.06	.37	.08
<i>First year in China</i>	1/1	78	.15	-.07	.36	.07
	1/2	76	.38	.18	.57	.18
	1/3	71	-.26	-.48	-.04	-.13
	1/4	61	.15	-.10	.40	.07
<i>Second year in China</i>	2/1	52	.18	-.08	.45	.09
	2/2	43	.24	-.04	.53	.12
	2/3	35	.15	-.18	.48	.07
	2/4	32	.08	-.27	.43	.04

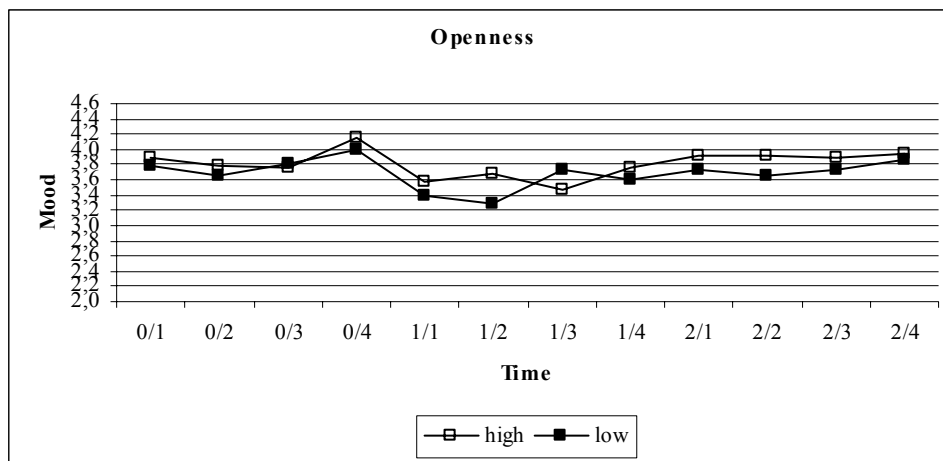


Figure 7. Openness
 Graph of effect of mood on the relationship between high Openness and low Openness.

Agreeableness

Hypothesis 4a supposed a positive relationship between interaction adjustment ratings and the Big Five dimension Agreeableness. The following table indicates no significant correlations due to the fact that the confidence interval includes zero for self- as well as for other-ratings.

Table 8. Agreeableness: Correlates of interaction adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Agreeableness ^b	135	.11	-.06	.29	66	.29	-.05	.62

^aCorrelations are corrected for unreliability in the criterion

^bCorrelations are corrected for range restriction in the predictor
 Uncorrected correlations can be found in appendix F

Table 9 represents *d*-values and *r*-values for the mood of expatriates who are high in Agreeableness compared to those who are low in Agreeableness. Expatriates who rated themselves high in this Big Five factor are in a better mood from the third quarter of the first year to the end of the second year except for one quarter. The *d*-values are nearly all moderate to large. As can be seen in figure 8 Hypothesis 4b can be partly confirmed.

Table 9. Agreeableness: *d*-values and *r*-values
High vs. Low

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	64	.24	.00	.47	.11
	0/2	64	.44	.25	.64	.21
	0/3	64	-.02	-.27	.23	-.01
	0/4	64	.19	-.04	.43	.09
<i>First year in China</i>	1/1	64	.10	-.14	.35	.05
	1/2	62	.05	-.20	.30	.03
	1/3	58	.46	.26	.67	.22
	1/4	50	1.07	1.03	1.11	.46
	2/1	44	.26	-.02	.54	.12
<i>Second year in China</i>	2/2	41	.65	.47	.83	.28
	2/3	36	.99	.99	1.00	.42
	2/4	33	.81	.69	.93	.34

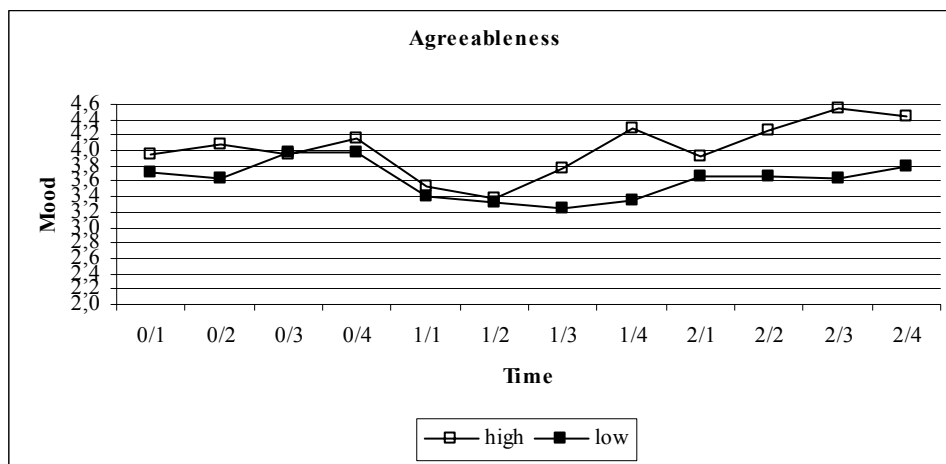


Figure 8. Agreeableness
Graph of effect of mood on the relationship between high Agreeableness and low Agreeableness.

Conscientiousness

Hypothesis 5a suggested that Conscientiousness is a positive predictor of work adjustment. We did not find any significant correlation (table 10). Thus, we have to reject hypotheses 5a.

Table 10. Conscientiousness: Correlates of work adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	n	r	95% CI for r		n	r	95% CI for r	
			Lower	Upper			Lower	Upper
Conscientiousness ^b	135	.07	-.12	.26	65	-.07	-.45	.30

^a Correlations are corrected for unreliability in the criterion

^b Correlations are corrected for range restriction in the predictor
Uncorrected correlations can be found in appendix G

Similar results were found for psychological adjustment. As can be seen in table 11, no significant *d*-values were found for the acceptance of hypothesis 5b. Expatriates who are high in Conscientiousness are not in a better mood than those who score low in Conscientiousness (see figure 9). Therefore, this Big Five dimension is not a predictor for psychological adjustment.

Table 11. Conscientiousness: *d*-values and *r*-values
High vs. Low

	time	n	d	95% CI for d		r
				Lower	Upper	
<i>One year before China</i>	0/1	77	.27	.07	.48	.12
	0/2	77	.04	-.19	.26	.02
	0/3	77	.04	-.18	.27	.02
	0/4	77	.10	-.13	.32	.04
<i>First year in China</i>	1/1	77	.10	-.12	.32	.04
	1/2	75	.18	-.04	.40	.08
	1/3	68	-.07	-.30	.17	-.03
	1/4	58	-.25	-.49	.00	-.10
<i>Second year in China</i>	2/1	49	.17	-.11	.44	.07
	2/2	39	.28	-.01	.57	.13
	2/3	34	-.05	-.39	.29	-.02
	2/4	32	.10	-.25	.44	.05

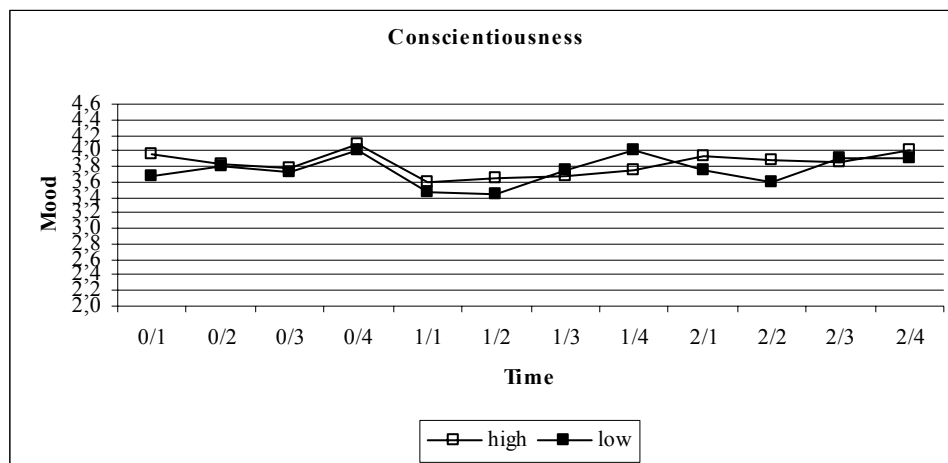


Figure 9. Conscientiousness

Graph of effect of mood on the relationship between high Conscientiousness and low Conscientiousness.

Context related variables

Language proficiency

According to hypothesis 6a language proficiency was expected to be positively related to socio-cultural adjustment. As can be seen in table 12 language proficiency shows a moderate correlation with self-ratings of socio-cultural adjustment and a rather large correlation with other-ratings. Correlations with both self- and other-ratings of adjustment are significant because the 95% confidence intervals do not include zero.

Table 12. Language proficiency: Correlates of socio-cultural adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Language proficiency	139	.30	.14	.45	68	.49	.20	.78

^aCorrelations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix H

Further we assumed that language proficiency is a positive predictor of psychological adjustment (hypothesis 6b). Therefore, we supposed that expatriates who speak the foreign language fluently, or close to fluently, are in a better mood over time than those who do not speak Chinese fluently or who have only inadequate language skills. As can be seen in table 13 as well as figure 10 the results are not consistent. The reported positive significant *d*-values are only small and adumbrate a direction that those who have adequate Chinese language skills are in a better mood.

Table 13. Language proficiency: *d*-values and *r*-values
Adequate vs. inadequate language ability

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	100	.30	.15	.45	.13
	0/2	100	.17	.01	.34	.08
	0/3	100	-.23	-.39	-.07	-.10
	0/4	100	.21	.05	.37	.09
<i>First year in China</i>	1/1	100	.15	-.02	.31	.07
	1/2	99	-.04	-.21	.13	-.02
	1/3	93	-.23	-.40	-.06	-.10
	1/4	78	.01	-.18	.20	.00
<i>Second year in China</i>	2/1	69	.32	.14	.51	.15
	2/2	59	.32	.12	.52	.15
	2/3	47	.16	-.08	.40	.08
	2/4	45	.30	.07	.53	.15

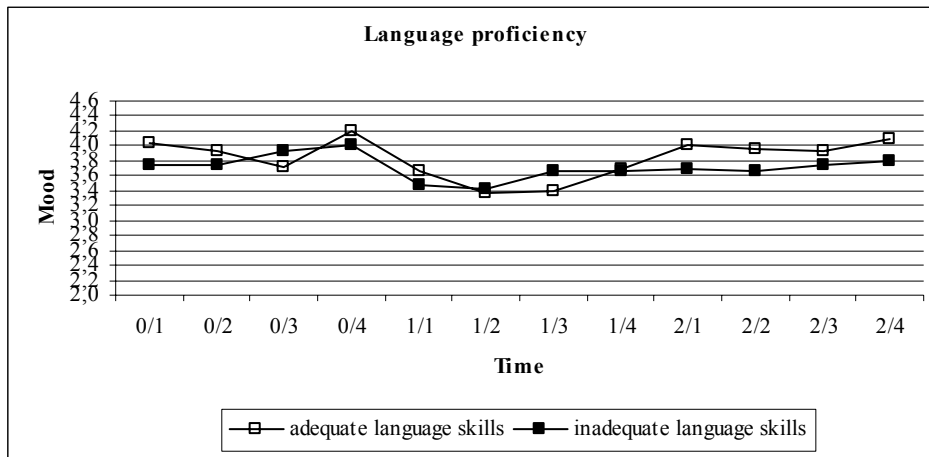


Figure 10. Language proficiency
Graph of effect of mood on the relationship between adequate language skills and inadequate language skills.

Prior international experience

Hypothesis 7a suggested a positive relation between previous overseas experience and socio-cultural adjustment. As can be seen in table 14 we can not confirm the hypothesis for self- as well as for other-ratings.

Table 14. Prior international experience: Correlates of socio-cultural adjustment ratings

Variable	Self-ratings				Other-ratings ^a			
	n	r	95% CI for r		n	r	95% CI for r	
			Lower	Upper			Lower	Upper
Prior international experience	139	-.01	-.18	.15	68	-.05	-.38	.28

^aCorrelations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix I

Further, we did not find noteworthy effect sizes between expatriates who had worked and lived abroad before their assignment to China and those who had not. As can be seen in the following table for the second quarter of the first year (1/2) a small positive *d*-value exists which indicates that those who had previous working and living experiences abroad were in a better mood than those who did not. This is moreover the lowest point of the curve for expatriates without prior international experience as can be seen in figure 11.

Table 15. Prior international experience: *d*-values and *r*-values
Yes vs. Now

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
One year before China	0/1	137	.06	-.11	.23	.03
	0/2	137	-.01	-.18	.15	-.01
	0/3	137	-.03	-.19	.14	-.01
	0/4	137	.13	-.03	.30	.07
First year in China	1/1	137	.03	-.14	.20	.02
	1/2	134	.19	.03	.36	.10
	1/3	126	.00	-.17	.18	.00
	1/4	106	.09	-.10	.28	.05
Second year in China	2/1	91	-.27	-.46	-.08	-.13
	2/2	77	-.23	-.45	-.02	-.12
	2/3	64	-.10	-.35	.14	-.05
	2/4	60	-.04	-.29	.22	-.02

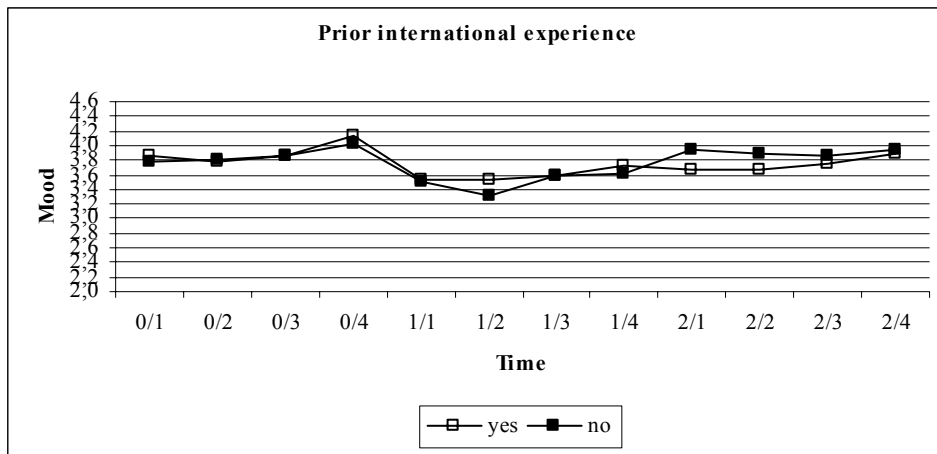


Figure 11. Prior international experience

Graph of effect of mood on the relationship between prior international experience and no prior international experience.

Culture novelty – Confucian Asia

Hypothesis 8a supposed that prior international experience within the Confucian Asia cluster is a positive predictor of socio-cultural adjustment. As can be seen in table 16, culture novelty does not have remarkable correlation with self- as well as other-ratings of socio-cultural adjustment. The slightly positive correlations support the theory that those who have no prior experience within the Confucian Asia cluster are better adjusted.

Table 16. Culture novelty: Correlates of socio-cultural adjustment ratings

Variable	Self-ratings adjustment				Other-ratings ^a adjustment			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Culture novelty	139	.06	-.11	.22	68	.17	-.16	.49

^a Correlations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix J

The results for psychological adjustment according to hypothesis 8b are represented in table 17 and in figure 12. For the first three quarters of the second year in China significant small and moderate *d*-values are found. These indicate that those people who are living within the Confucian Asia culture for the first time are in a better mood compared to those who have lived within the Confucian Asia culture before.

Table 17. Culture novelty: *d*-values and *r*-values
Yes vs. No

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
One year before China	0/1	135	-.11	-.28	.06	-.05
	0/2	135	-.09	-.26	.07	-.04
	0/3	135	.21	.05	.37	.09
	0/4	135	-.06	-.23	.11	-.02
First year in China	1/1	135	.16	.00	.33	.07
	1/2	132	.06	-.11	.23	.03
	1/3	125	-.03	-.21	.14	-.01
	1/4	105	-.15	-.34	.04	-.06
Second year in China	2/1	90	.51	.36	.66	.22
	2/2	76	.59	.44	.74	.26
	2/3	63	.25	.02	.49	.12
	2/4	59	.23	-.02	.47	.11

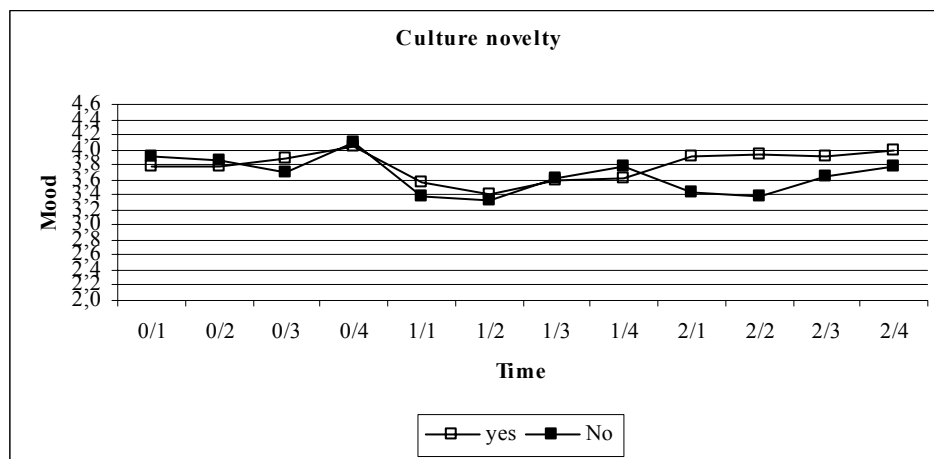


Figure 12. Culture novelty
Graph of effect of mood on the relationship between culture novelty and no culture novelty.

Cross-cultural training

The relationship between socio-cultural adjustment and cross-cultural training (hypothesis 9a) can not be confirmed because the confidence interval includes zero as can be seen in table 18. We would like to mention that more than 60 percent of our interviewees did not receive pre-departure training. These findings underline the results from Tung and Worm (1997) as well as Kaye and Taylor (1997).

Table 18. Cross-cultural training: Correlates of socio-cultural adjustment ratings

Variable	Self-ratings adjustment				Other-ratings ^a adjustment			
	n	r	95% CI for r		n	r	95% CI for r	
			Lower	Upper			Lower	Upper
Cross-cultural training	139	.01	-.16	.18	68	.29	-.03	.61

^a Correlations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix K

Further, we expected that cross-cultural training is a positive predictor of psychological adjustment (hypothesis 9b). As can be seen in table 19 people who took part in cross-cultural training are in a better mood in the third and fourth quarter before expatriation as well as in the first and second quarter after arrival. The observed *d*-values are small. No other effect size between these two groups was found.

Table 19. Cross-cultural training: *d*-values and *r*-values
Yes vs. No

	time	n	d	95% CI for d		r
				Lower	Upper	
<i>One year before China</i>	0/1	137	.09	-.08	.26	.04
	0/2	137	.15	-.01	.32	.07
	0/3	137	.35	.20	.50	.17
	0/4	137	.24	.08	.40	.12
<i>First year in China</i>	1/1	137	.36	.21	.51	.17
	1/2	134	.17	.01	.34	.08
	1/3	126	.01	-.17	.18	.00
	1/4	106	.13	-.06	.32	.06
<i>Second year in China</i>	2/1	91	.03	-.17	.24	.02
	2/2	77	.09	-.14	.31	.04
	2/3	64	-.06	-.31	.19	-.03
	2/4	60	-.02	-.27	.24	-.01

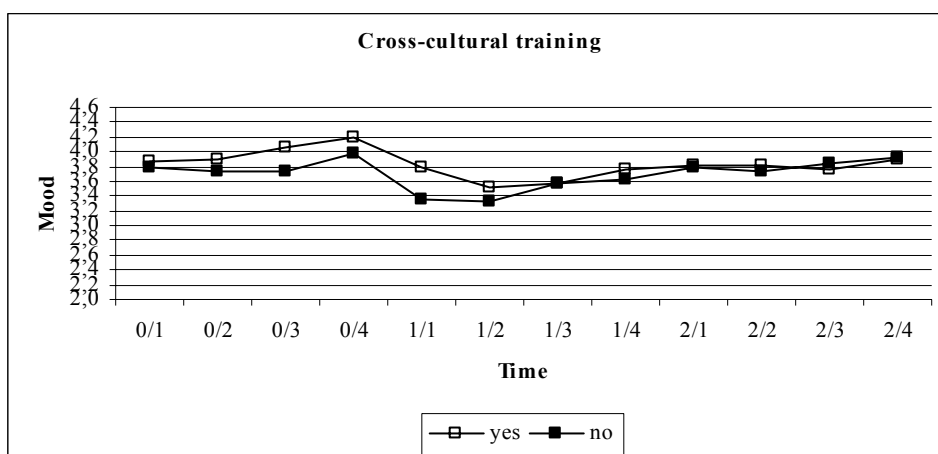


Figure 13. Cross-cultural training

Graph of effect of mood on the relationship between cross-cultural training and no cross-cultural training.

Initiative

Forty percent of the interviewees reported that they went abroad on the initiative of their employer or their spouse (other-initiated) and the same amount expressed a wish to go abroad (self-initiated). The remaining expatriates (20.1%) made the decision together with their employer/spouse (mutually-initiated). Hypothesis 10a suggested that self-initiative is a positive predictor of socio-cultural adjustment. Table 20 shows the results for self-ratings of socio-cultural adjustment. It is observable that people who initiated the assignment themselves as well as those where employer/spouse and employee mutually agreed on the assignment are better adjusted than people who went abroad on another's initiative. Further, no effect size is visible for self-initiated versus mutually initiated.

Table 20. Initiative: d-values and r-values of self-ratings of socio-cultural adjustment

Criteria	Self-ratings adjustment				
	n	d	95% CI for r		r
			Lower	Upper	
Self-initiated vs. Other-initiated	111	.39	.23	.55	.19
Self-initiated vs. Mutually-initiated	83	-08	-.30	.13	-.04
Other-initiated vs. Mutually-initiated	84	-.45	-.62	-.28	-.21

Table 21 shows *d*-values of overall other-ratings of adjustment. Likewise, an effect size for self-initiated and other-initiated was found which indicates that people who are self-initiated are better adjusted than people who went abroad initiated by the employer or the spouse. No other effect size was found.

Table 21. Initiative: d-values and r-values of other-ratings of socio-cultural adjustment

Criteria	Other-ratings adjustment				
	n	d	95% CI for r		r
			Lower	Upper	
Self-initiated vs. Other-initiated	50	.35	.11	.60	.17
Self-initiated vs. Mutually-initiated	43	.22	-.06	.53	.11
Other-initiated vs. Mutually-initiated	43	-.15	-.44	.15	-.07

Finally, results show that people who went abroad on their own initiative are better adjusted than people who went abroad on their employer's or spouse's initiative. The same results hold true for psychological adjustment (hypothesis 10b), as can be seen in table 22. People who went to China on their own initiative are in a better mood over time compared to people where the company or the spouse initiated the assignment. The reported *d*-values as well as *r*-values are all rather moderate. No significant *d*-values were found for the second quarter of the year before assignment as well as for the first quarter of the second year in China (cf. figure 14).

Table 22. Initiative: *d*-values and *r*-values
Self-initiated vs. Other-initiated

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	109	-.29	-.46	-.21	-.14
	0/2	109	-.03	-.22	.06	-.02
	0/3	109	.45	.30	.52	.22
	0/4	109	.55	.42	.61	.26
<i>First year in China</i>	1/1	109	.29	.11	.37	.14
	1/2	106	.56	.43	.63	.27
	1/3	98	.44	.28	.52	.21
	1/4	83	.40	.21	.48	.19
<i>Second year in China</i>	2/1	74	.20	-.02	.31	.10
	2/2	64	.83	.75	.87	.38
	2/3	53	.28	.03	.40	.14
	2/4	49	.42	.19	.54	.21

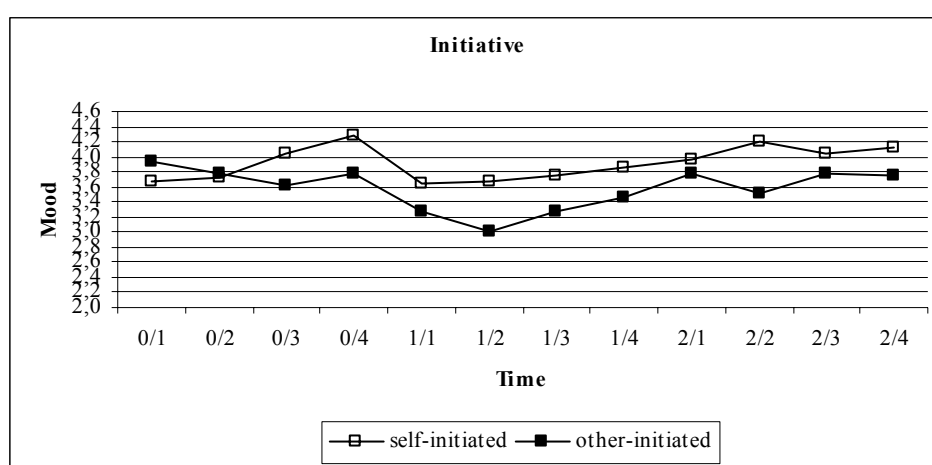


Figure 14. Initiative
 Graph of effect of mood on the relationship between one's own initiative and others initiative.

Support of co-workers

Hypothesis 11a supposed that social support of co-workers in the host country is positively related to work adjustment. As can be seen in table 23 the predicted positive relationship can be confirmed for self-ratings but not for other-ratings.

Table 23. Support of co-workers: Correlates of work adjustment ratings

Variable	Self-ratings adjustment				Other-ratings ^a adjustment			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Support of co-workers	137	.22	.06	.38	67	.16	-.17	.49

^a Correlations are corrected for unreliability in the criterion
 Uncorrected correlations can be found in appendix L

Expatriates who are satisfied with the social support of co-workers are in a better mood over time than those who are not satisfied with this support, as can be seen in table 24.

The year before arrival is not relevant for supporting the hypothesis 11b because the question was related to the time being abroad. No significant effect size was found for the first quarter in China but the following quarters show increasing *d*-values from moderate to large. For the second year in China the means differ by more than one and a half standard deviation. Taking a look at figure 15 the effect is much more visible. Therefore, we can confirm hypothesis 11b.

Table 24. Support of co-workers: *d*-values and *r*-values
Satisfied vs. Dissatisfied

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	108	-.37	-.53	-.20	-.12
	0/2	108	-.05	-.24	.14	-.02
	0/3	108	.10	-.09	.29	.03
	0/4	108	-.10	-.29	.08	-.04
<i>First year in China</i>	1/1	108	.07	-.11	.26	.02
	1/2	106	.42	.26	.58	.14
	1/3	103	.76	.68	.84	.24
	1/4	89	.76	.67	.85	.24
<i>Second year in China</i>	2/1	76	1.63	1.26	2.01	.45
	2/2	67	1.53	1.21	1.86	.45
	2/3	55	1.97	1.20	2.74	.49
	2/4	51	1.69	1.18	2.21	.45

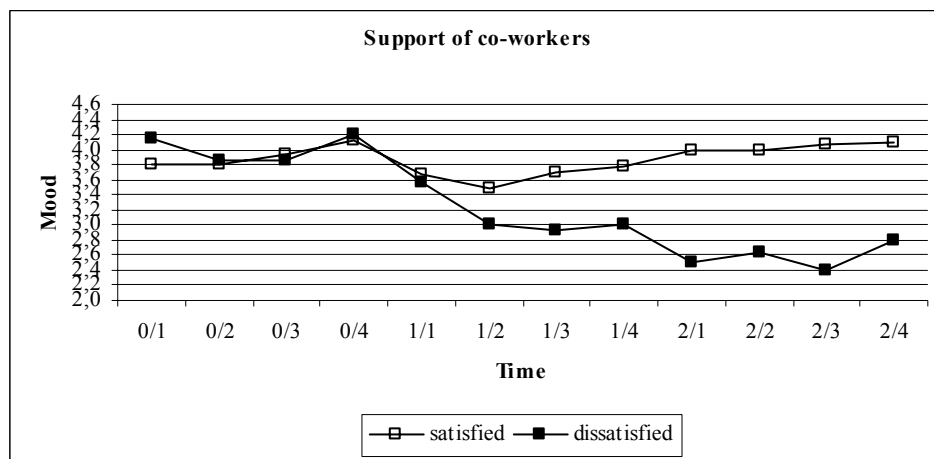


Figure 15. Support of co-workers

Graph of effect of mood on the relationship between people who are satisfied with the support of co-workers and people who are not satisfied with the support of co-workers.

Logistical support

Hypothesis 12 suggested that logistical support of the HR department is positively related to (a) interaction and (b) general adjustment. Contrary to this suggestion there is no noteworthy correlation, as can be seen in table 25.

Table 25. Logistical support: Correlates of interaction and general adjustment ratings

Variable	Self-ratings adjustment				Other-ratings ^a adjustment			
	n	r	95% CI for r		n	r	95% CI for r	
			Lower	Upper			Lower	Upper
HR: Interaction adjustment	92	.15	-.05	.35	39	.18	-.25	.62
HR: General adjustment	92	.00	-.20	.21	39	.12	-.32	.56

^a Correlations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix M

Logistical support was expected to be positively related to psychological adjustment (hypothesis 12c). As can be seen in table 26 there are only partially significant effect sizes which indicate that means difference between expatriates who are satisfied and those who are not satisfied with the logistical support of the HR department. Only in the second year is the difference observable (figure 16), in that people who are satisfied with the support of the HR department are in a better mood compared to those who are dissatisfied.

Table 26. Logistical support of the HR department: d-values and r-values
Satisfied vs. Dissatisfied

	time	n	d	95% CI for d		r
				Lower	Upper	
<i>One year before China</i>	0/1	54	.25	-.01	.50	.12
	0/2	54	-.08	-.35	.19	-.04
	0/3	54	.09	-.18	.36	.04
	0/4	54	-.09	-.36	.18	-.04
<i>First year in China</i>	1/1	54	.02	-.24	.29	.01
	1/2	54	.51	.32	.71	.24
	1/3	49	-.23	-.50	.04	-.11
	1/4	41	-.18	-.48	.12	-.09
<i>Second year in China</i>	2/1	32	.13	-.22	.47	.06
	2/2	28	1.02	1.00	1.03	.45
	2/3	24	.71	.51	.91	.33
	2/4	24	.40	.06	.74	.19

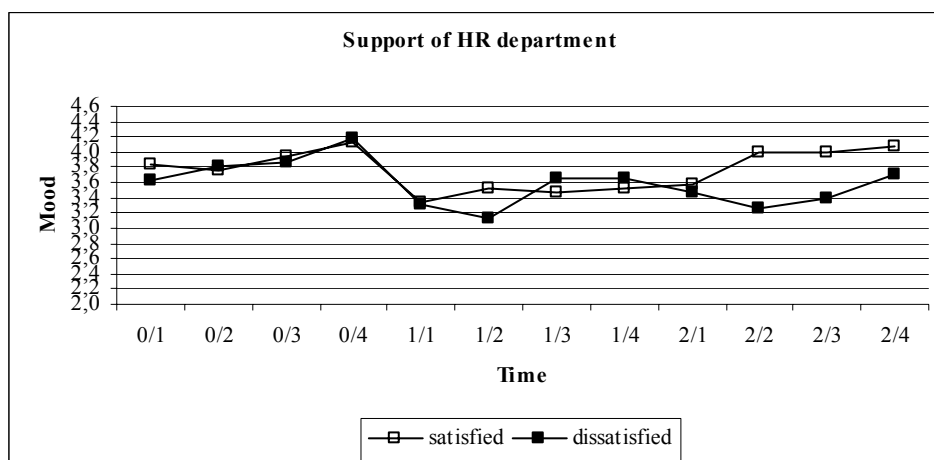


Figure 16. Support of the HR department

Graph of effect of mood on the relationship between people who are satisfied with the support of the HR department and people who are not satisfied with the support of the HR department.

Support of other expatriates

The research literature presents a lot of evidence that support of other expatriates is helpful abroad, especially in China (Tung & Worm, 1997; Wang & Kanungo, 2004). We can not confirm hypothesis 13a that ‘expatriate support’ will be positively related to general adjustment. We found a zero correlation for self-ratings and nearly the same correlation for other-ratings.

Table 27. Support of other expatriates: Correlates of general adjustment ratings

Variable	Self-ratings adjustment				Other-ratings ^a adjustment			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Support of other expatriates	139	.00	-.16	.17	68	.04	-.29	.37

^a Correlations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix N

The same results as reported above appeared for psychological adjustment (hypothesis 13b). No effect sizes are observable between expatriates who get frequent support of other expatriates and those who do not. One effect size is presented which is not crucial because the question was related to the time being abroad (cf. figure 17).

*Table 28. Support of other expatriates: d-values and r-values
Frequent vs. Unfrequent*

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	108	-.12	-.30	.07	-.05
	0/2	108	-.20	-.38	-.02	-.08
	0/3	108	.33	.16	.50	.14
	0/4	108	.13	-.06	.31	.05
<i>First year in China</i>	1/1	108	-.15	-.34	.03	-.06
	1/2	106	-.08	-.27	.11	-.03
	1/3	99	-.13	-.33	.06	-.05
	1/4	83	-.11	-.33	.10	-.05
<i>Second year in China</i>	2/1	73	-.04	-.27	.19	-.02
	2/2	63	.22	-.02	.45	.09
	2/3	52	.07	-.20	.35	.03
	2/4	50	-.12	-.39	.16	-.05

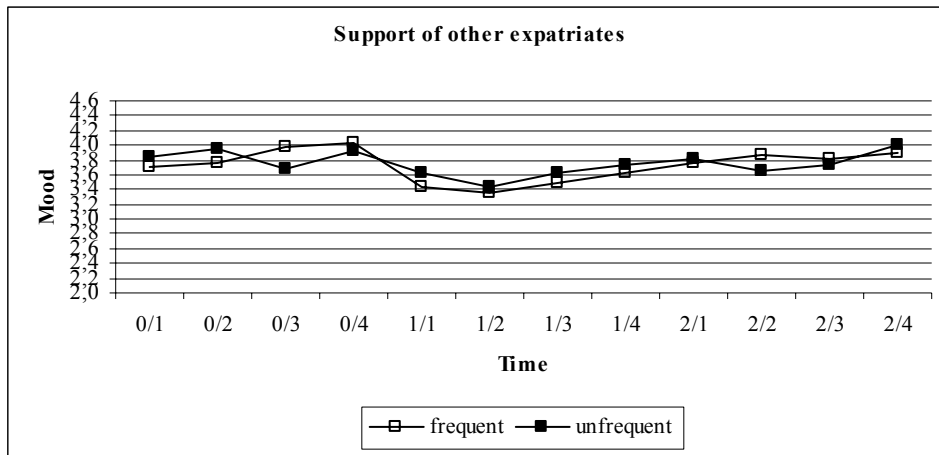


Figure 17. *Support of other expatriates*
Graph of effect of mood on the relationship between people who are satisfied with the support of other expatriates and people who are not satisfied with the support of other expatriates.

Contact with host nationals in leisure time

We assumed that people who have frequent contact with hosts in their leisure time will be better adjusted to interact with host nationals when compared to those who do not. As can be seen in table 29, we can completely confirm hypothesis 14a. In both adjustment ratings a moderate correlation exists with the predictor ‘contact with host nationals’.

Table 29. *Contact with host nationals: Correlates of interaction adjustment ratings*

Variable	Self-ratings adjustment				Other-ratings ^a adjustment			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Contact with host nationals	139	.30	.15	.45	68	.36	.05	.67

^aCorrelations are corrected for unreliability in the criterion
Uncorrected correlations can be found in appendix O

Hypothesis 14b supposed that contact with host nationals in leisure time is a positive predictor of psychological adjustment. Table 30 shows *d*-values and *r*-values for the mean differences between frequent and unfrequent contact to host nationals in leisure time. As can be seen, only for the second quarter of the first year in China, no effect size is observable (we refer only to the time abroad). For the following quarters small to large *d*-values are given. Therefore, expatriates who have frequent contact to host nationals in their leisure time are in a better mood than expatriate without frequent or any contact (cf. figure 18).

Table 30. Contact with host nationals in leisure time: *d*-values and *r*-values
Frequent vs. Unfrequent

	time	<i>n</i>	<i>d</i>	95% CI for <i>d</i>		<i>r</i>
				Lower	Upper	
<i>One year before China</i>	0/1	95	-.07	-.27	.13	-.03
	0/2	95	-.13	-.33	.07	-.06
	0/3	95	-.10	-.30	.10	-.05
	0/4	95	.32	.13	.50	.15
<i>First year in China</i>	1/1	95	.27	.08	.46	.13
	1/2	93	-.07	-.27	.13	-.03
	1/3	87	.46	.30	.63	.21
	1/4	73	.40	.20	.59	.18
<i>Second year in China</i>	2/1	63	.72	.60	.84	.32
	2/2	52	.37	.13	.60	.17
	2/3	40	.70	.55	.86	.31
	2/4	38	.85	.77	.94	.37

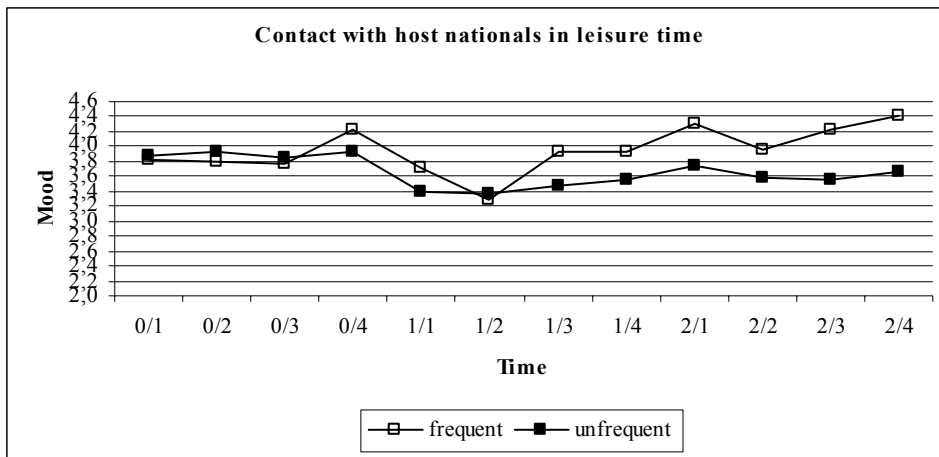


Figure 18. Contact with hosts in the leisure
 Graph of effect of mood on the relationship between people who have frequent contact to hosts in leisure time and people who have not frequent contact to hosts in leisure time.

Mood curve

Hypothesis 15 suggested that psychological adjustment follows a U-shape over time. As can be seen in figure 19, the mood increases before arrival and plunges down in the first quarter abroad (1/1). The curve has the lowest point at the second quarter of the first year (1/2) in China which indicates the existence of a culture shock phase. Afterwards, the expatriate's mood increases towards the end of the time period examined. The first (0/1) and the next to last quarter (2/3) of our examination indicate nearly the same mood as can be clearly seen in figure 19. The supposed honeymoon phase is not observable in our data because the U-curve theory does not consider the time before arrival (0/1-0/4) but only the time abroad (1/1-2/4). Therefore, hypothesis 15 can only be partially confirmed, in that psychological adjustment over time follows a U-shaped curve.

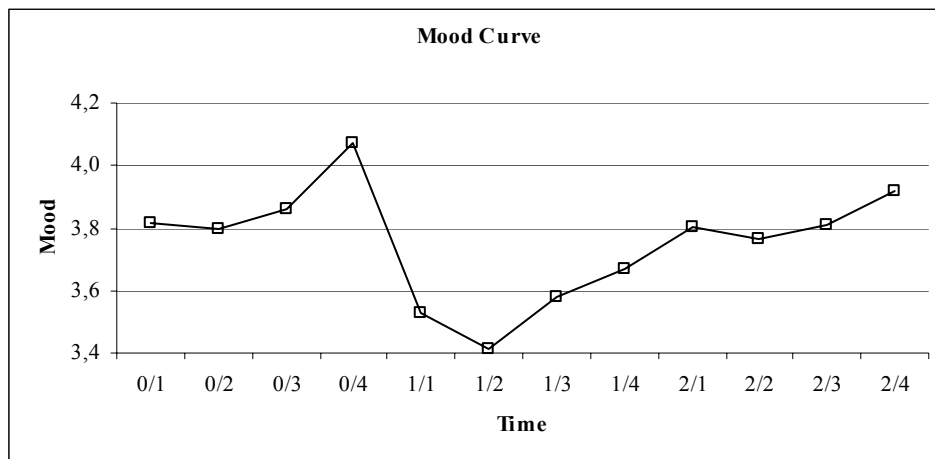


Figure 19. Mood curve

Further, we want to focus more specifically on the mood curve. First, we analyze the changes up to and after arrival. Second, the fluctuation margin of the curve will be shown. Third, we analyze at which point in time the curve turns into negative values after arrival. Fourth, we show the maximum and minimum of the curve. And finally, we analyze patterns in reported moods.

Changes up to and after arrival

The matrix in table 31 shows that 50.4 percent of the expatriates have *no changes* in mood three months before arrival, which can be seen in the column *total*. After arrival 21.2 percent of these expatriates show a *drop* in mood, 6.6 percent a *lift* in mood, and nearly the half of the interviewees who do not show any changes before arrival also do not show any changes after arrival (22.6 %). The mood of 32.8 percent of the expatriates increased before arrival. After arrival more than the half of those do not show any change (17.5%). Only in three cases does the mood increase once more, and for those remaining the mood goes down. Finally, those expatriates who show a drop in mood before arrival also show, in the most of the cases ($n = 15$), a drop after arrival. It becomes apparent that most of the expatriates (50.4%) do not show any change in mood before arrival as well as one third of the expatriates showing a rise before arrival. In contrast the majority of expatriates (45.3%) experience a drop in mood after arrival, whereas only a tenth (11.7%) shows a lift in mood.

Table 31. Mood over time: Changes up to and after arrival in percent

		Arrival to after arrival							
		no change		lift		drop		total	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>
Three months before arrival	no change	22.6	31	6.6	9	21.2	29	50.4	69
	lift	17.5	24	2.2	3	13.1	18	32.8	45
	drop	2.9	4	2.9	4	11.0	15	16.8	23
	<i>total</i>	43.0	59	11.7	16	45.3	62	100	137

Fluctuation margin of the curve

Table 32 demonstrates the fluctuation margin of the curve one year before arrival, for the first and the second year in China, and for one year before arrival as well as for the first and the second year abroad. As can be seen in the first row, 11.7 percent of the expatriates show a fluctuation around three mood scores before arrival. These expatriates experience both positive and negative moods before the assignment to China. The first and second year (cf. the second row) indicates that twice as many expatriates fluctuate between positive and negative mood (27.7%). Examining the complete curve we found that nearly half of the interviewed expatriates (46.7%) fluctuate between three mood scores. Further, it can also be observed that the percentage of expatriates with no changes in their mood (no fluctuation) decreases; the longer the individuals are in China. Whereas, 21.1 percent of the expatriates did not show any fluctuation before arrival, only one tenth (9.5%) showed no fluctuation after arrival. Finally we can conclude that the fluctuation of mood increases after arrival in China.

Table 32. Fluctuation margin of the mood curve

	1 score		2 scores		3 scores		4 scores		no fluctuation		total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
One year before arrival	52	38.0	37	27.0	16	11.7	3	2.2	29	21.1	137	100
First and second year in China	26	19.0	54	39.4	38	27.7	6	4.4	13	9.5	137	100
One year before arrival and the first and second year in China	10	7.3	42	30.7	64	46.7	14	10.2	7	5.1	137	100

The first negative mood point

Third, we analyze at which point in time the curve first becomes negative after arrival. As can be seen in table 33, 39.4 percent of the German speaking expatriates did not draw a curve which reflected a negative mood at any time. The following figures refer to all expatriates, including those who did not experience being in a negative mood at any time. The

majority of expatriates are in a negative mood for the first three months after arrival (17.5% compared to all expatriates) as well as 6 month after arrival (12.4%). The last quarter before arrival as well as the third and fourth quarter of the first year in China indicates the same value (7.3%). The remaining 8.8 percent refer to the whole second year. Finally, it is apparent that the decline of mood takes place mostly during the first year in China and more precisely during the first quarter.

Table 33. The first negative mood point

	time	n	%
<i>One year before China</i>	0/1	0	0
	0/2	0	0
	0/3	0	0
	0/4	10	7.3
<i>First year in China</i>	1/1	24	17.5
	1/2	17	12.4
	1/3	10	7.3
	1/4	10	7.3
<i>Second year in China</i>	2/1	4	2.9
	2/2	6	4.4
	2/3	0	0
	2/4	2	1.5
no negative mood		54	39.4
<i>total</i>		<i>137</i>	<i>100</i>

Maximum and minimum of the curve

Table 34 represents the maximum and minimum of the curve. The table is subdivided like table 32. Interesting results can be found by comparing one year before arrival and the first and second year after arrival. As can be seen “three” is the highest mood-score of six percent of the expatriates, indicating that their mood is neutral (neither positive nor negative) during the first and second year in China. In contrast, only 1.5 percent of the expatriates have the same value before arrival. Further observable is that only 2.9 percent of the expatriates plotted the lowest point, which is score one (*very bad mood*) as minimum value before arrival, whereas after arrival 16.8 percent reported that they were in very bad mood. The same is true for *bad mood* (score two) which increased after arrival. Whereas scores three (*neutral mood*), four (*positive mood*) and five (*very positive mood*) decreased after arrival, compared to the year before arrival, by regarding the minimum of the curve.

Table 34. Maximum and minimum of the mood curve

	score	Maximum		Minimum	
		<i>n</i>	%	<i>n</i>	%
One year before arrival	1	0	0.0	4	2.9
	2	0	0.0	35	25.6
	3	2	1.5	42	30.7
	4	60	43.8	45	32.8
	5	75	54.7	11	8.0
	<i>total</i>		<i>137</i>	<i>100</i>	<i>137</i>
First and second year in China	1	0	0.0	23	16.8
	2	1	0.7	59	43.1
	3	8	5.9	29	21.2
	4	57	41.6	21	15.3
	5	71	51.8	5	3.6
	<i>total</i>		<i>137</i>	<i>100</i>	<i>137</i>
One year before arrival and the first and second year in China	1	0	0.0	26	19.0
	2	0	0.0	71	51.8
	3	1	0.7	27	19.7
	4	39	28.5	12	8.8
	5	97	70.8	1	0.7
	<i>total</i>		<i>137</i>	<i>100</i>	<i>137</i>

Patterns in reported moods

Finally we analyze patterns in the reported mood curve (cf. table 35). By referring to the year before arrival as well as to the first and second year after arrival we found that 65.7 percent of the expatriates show the pattern down-up. This pattern indicates that the first shift in direction of mood is reflected by first going down then up. Only 14.6 percent shows the pattern up-down and the remaining expatriates indicate no change (7.3 %), up only (7.3 %), and down only (5.1 %).

Table 35. Patterns in reported moods

	Patterns	<i>n</i>	%
One year before arrival and the first and second year in China	no changes	10	7.3
	up-only	10	7.3
	up-down	20	14.6
	down-only	7	5.1
	down-up	90	65.7
	<i>total</i>		<i>137</i>

Discussion

Researchers report that the majority of expatriates will be selected only based on their technical knowledge or by their managerial skills (e.g., Deller, 1997; Mendenhall et al., 2002; Seargent & Frenkel, 1998). Mendenhall et al. (1987) outline that technical knowledge is essential as *one* part of a set of selection criteria for international assignments. When asking our interviewees “How were you selected for the international assignment?” nearly 70 percent reported that they were recommended by their supervisor. They did not report any kind of special selection procedure such as Assessment Center or structured interviews with the supervisor and the HR department. It seems to be that mostly technical knowledge, managerial skills, or the goodwill of the supervisor decide about expatriation. But managerial skills and technical knowledge are not sufficient for adjusting successfully abroad. Some of the reported results indicate that personality and context related variables are related to adjustment. Thus, in the following section we discuss our findings.

Discussion of Results

Ward et al. (1998) suggest that the concepts of socio-cultural adjustment as well as of psychological adjustment are inter-related but also “conceptually and empirically distinct” (p. 279). They suppose that psychological adjustment is e.g., influenced by social support and personality, whereas socio-cultural adjustment is e.g., influenced by the amount of contact with host nationals and cultural knowledge. When discussing our findings we will refer to Ward et al.’s (1998) assumption.

Personality.

Emotional Stability

We hypothesized a positive relationship between Emotional Stability and socio-cultural adjustment. As can be seen in our results (table 2, p. 32) a positive moderate correlation exists between Emotional Stability and self-ratings of adjustment and no significant correlation with other-ratings of adjustment. Supposable for the non-existence of a correlation may be that expatriates try to hide their difficulties in adjustment or that they behave according to host national norms when somebody, especially the supervisor, is around. Another explanation could be that the interviewee and the other rater perceived different aspects while rating the adjustment. Whereas the expatriate regards psychological

well-being as important for adjustment, the other rater is only able to observe behavior which does not necessarily correspond to the expatriate's well-being. A third explanation may be that psychological adjustment (measured in mood values) is more influenced by Emotional Stability than socio-cultural adjustment, which includes work, interaction, and general adjustment as sub-dimensions. By arguing in this way, we support the assumption of Ward et al. (1998). Likewise, Swagler and Jome (2005) reported significant correlations with psychological adjustment, which were measured by the Profile of Mood States (McNair et al., 1981). Our results indicate considerable effects along the mood curve (table 3, p. 33). Expatriates who are high in Emotional Stability are in a better mood over time than those who are low in this personality dimension. Although the other-ratings did not support our hypothesis we regard Emotional Stability as an essential personality dimension which facilitates adjustment and especially psychological adjustment.

Extraversion

A positive relationship between Extraversion and interaction adjustment was supposed. Our results did not indicate a relationship for self-ratings as well as for other-ratings (table 4, p. 34). The confidence interval for other-ratings spans from .00 to .71 therefore we can assume a positive tendency ($r=.36$) between Extraversion and other-ratings of adjustment. A possible reason for the non-existence of relationship between interaction adjustment and Extraversion could be that people who are extraverted are self-confident, dominant, and assertive (McCrae & Costa, 1992). These are personality dimensions which would not be regarded as strengths in the Chinese culture. Chinese people are rather wary which is observable in the indirect style of communication. When looking at psychological adjustment of the expatriates we observed small to large effect sizes from the second quarter of the first year in China until the end of our examination (table 5, p. 34). These findings indicate that extraverted expatriates are in a better mood over time than expatriates who score low in this dimension. All things considered these findings support the assumption of Ward et al. (1998) that psychological adjustment is influenced by personality rather than socio-cultural adjustment.

Openness

Openness was suggested to correlate positively with socio-cultural adjustment. Unfortunately, this was only confirmed for self- but not for other-ratings of adjustment (table 6, p. 35). Nevertheless, other-ratings of adjustment showed a positive tendency ($r=.13$), but

the confidence interval included zero. However, Openness seems to have an impact on socio-cultural adjustment. Therefore, we can conclude that expatriates who are open for new ideas, values, norms, and behavior are more open-minded for unconventional ways and for a new culture, and therefore are better adjusted. Despite our predictions, Openness was not related to psychological adjustment as can be seen in table 7 (p. 36). This result was also confirmed by Swagler and Jome (2005) who likewise did not find a significant correlation. A possible explanation could be that our specific sample is more open in general. Therefore, variance was restricted and we did not find any influence on mood. Unfortunately, we could not correct for range restriction. Finally, we can conclude that Openness is partially related to socio-cultural adjustment but not to psychological adjustment.

Agreeableness

Agreeableness is an important dimension when it comes to interpersonal interaction (Ostendorf & Angleitner, 2004). Therefore, we supposed a positive relationship between interaction adjustment and Agreeableness. No correlation emerged for Agreeableness and interaction adjustment (table 8, p. 36), but the mood values indicate moderate to large effect sizes from the third quarter of the first year to the end of our examination with the exception of one quarter, as can be seen in table 9 (p. 37). These results contradict the finding of Swagler and Jome (2005) who reported small significant correlations between Agreeableness and socio-cultural adjustment but support the finding that Agreeableness correlates moderate with psychological adjustment. Therefore, Agreeableness seems to be rather related to psychological adjustment. An explanation for the relation to psychological adjustment could be the culture. Whereas the GLOBE cluster “Confucian Asia” shows high practical scores in Institutional Collectivism and In-Group Collectivism, the Germanic Europe cluster shows only low practical scores in these cultural dimensions. This supports the explanation of Swagler and Jome (2005): “Being more agreeable may especially facilitate the cross-cultural adjustment in an Asian country such as Taiwan [or China], where collectivistic values of cooperation, working toward the group, maintaining harmony in interpersonal situations, and saving face are important” (p. 533).

Conscientiousness

None of the Conscientiousness related hypotheses was confirmed (table 10, p. 38; table 11, p. 38). This supports the findings of Ones and Viswesvaran (1997) who do not expect a relationship between Conscientiousness and adjustment. An explanation for these

findings could be that Conscientiousness is more important for job performance than for adjustment. A second assumption may be that expatriates who are conscientious do not have better perceptual skills which are helpful for adjustment, which was supposed by Leiba-O'Sullivan (1999). Finally, we conclude that the personality dimension Conscientiousness has no influence on adjustment in our study.

Context related variables.

Language proficiency

As expected we found a positive relationship between language ability and socio-cultural adjustment for self- as well as for other-ratings (table 12, p. 39). The reported correlations are moderate for self-ratings and even nearly large for other-ratings. These findings are, not surprisingly, in contrast to the results for psychological adjustment which are inconsistent. No significant *d*-values have been found for the first year in China (table 13, p. 39). This indicates that the mood of expatriates does not differ according to their language ability. One possible explanation could be that most of our expatriates (nearly 80% of our sample fill a position as CEO or as a manager) have the support of a secretary or somebody else who speaks English to aid them in work-related as well as in private-related situations. Noteworthy are effect sizes of mood values for the second year in China, which indicate that language ability has a positive impact on mood. Conceivable is that expatriates get language support e.g., by having a Chinese assistant who speaks English for the starting time in China. This support becomes less after a while which results in a change in mood. People who speak Chinese fluently or who are close to fluently are in a better mood during the second year than those who do not speak Chinese or who have inadequate language skills. Therefore, language ability influences socio-cultural adjustment and partially psychological adjustment.

Prior international experience

None of the prior international experience-related hypotheses was confirmed. We found slightly negative values for socio-cultural adjustment (table 14, p. 40). One reason for this result could be that previous international experience inhibits an examination of a new culture rather than facilitates adjustment. Primarily, we supposed that expatriates with international experience would be more able to formulate a realistic picture of living and working abroad. Regarding these findings it is supposable that this kind of picture is realistic but only for a specific culture and not for cultures in general. A second explanation could be that living experiences and not only working experiences are important for adjustment.

Unfortunately, we only asked for previous work experience. We suppose that people who do not have working but other experience abroad (e.g., studying abroad, working as an Au-pair, or passing a High School year) have also learned to cope with ambiguous situations.

Referring to McEvoy and Parker (1995) who reported that previous international experience is important at the beginning of the assignment, we can not confirm their findings as can be seen in table 15 (p. 41). We only found for the second quarter of the first year in China a significant positive *d*-value. Surprisingly are the negative *d*-values for the second year in China which underline the findings for socio-cultural adjustment and our assumption that prior international experience may inhibit adjustment.

Culture novelty – Confucian Asia

Likewise, culture novelty did not show remarkable correlations with socio-cultural adjustment. As can be seen, the reported correlations adumbrate a relationship as reported above (table 16, p. 41). Above we argued that expatriates with international experience may have a realistic picture about living and working abroad but only for a specific culture and not in general. At first glance, the results for culture novelty contradict this assumption. But we did not collect the time of the first stay in a Confucian Asia country. As we know China has experienced an enormous economic growth during the last few years (PricewaterhouseCoopers, 2005), which is much more abundant in the main cities such as Shanghai or Beijing, where we interviewed the expatriates. The fact that working and living conditions have changed rapidly during the last few years could be a possible explanation why culture novelty is not related to adjustment. Therefore, the ‘alleged’ cultural knowledge about China does not seem to facilitate adjustment. Likewise, psychological adjustment underlines this assumption, especially for the second year in China (table 17, p. 42). Expatriates who are in a Confucian Asia country for the first time are in a better mood than those who have prior “Confucian Asia” experience.

Cross-cultural training

Surprisingly, cross-cultural training did not appear to be related to socio-cultural adjustment. We found a nearly zero correlation for self-ratings but for other-ratings a slightly positive significant correlation (table 18, p. 43). One possible explanation for the nearly zero correlation could be that cross-cultural training was not perceived as helpful by the expatriates. However, we found significant *d*-values for the last half year before assignment as well as for the first half year abroad (table 19, p. 43). Therefore, it seems to be that

expatriates who took part in an intercultural training were in a better mood at the beginning of the assignment because they were aware of Chinese values, norms, and behaviors. Finally, we conclude that cross-cultural training is related to psychological adjustment, but only for the first half year abroad, and not related to socio-cultural adjustment.

Initiative

As can be seen in table 20 and 21 (p. 44) the findings indicate that expatriates who initiated the assignment themselves are better adjusted than people who went abroad on another's initiative. We likewise found significant *d*-values for psychological adjustment of the expatriates by comparing self-initiated and other-initiated which indicates that expatriates who self-initiated their assignments are in a better mood (table 22, p. 45). If somebody shows initiative we can suppose that he/she is highly motivated to achieve the assigned goals. Likewise, we can not presume that in cases where their employer/spouse made the first steps the expatriate has no interest in the assignment. Nevertheless, one possible explanation for the results could be that more and more international companies regard an expatriation as an essential criterion for an employee's future career. Thus, expatriates have to go abroad for their career development although sometimes they do not want to. This assumption may explain our findings. Asking expatriates for their motivation every tenth regarded career development as an important motivation. Finally, initiative seems to be a strong predictor for socio-cultural adjustment as well as for psychological adjustment.

Support of co-workers

We supposed that support of co-workers in the host country has an impact on adjustment. Social support of co-workers in the host country showed a positive relationship with self-ratings of work adjustment. Other-ratings of work adjustment showed a positive tendency ($r=.16$) but the confidence interval include zero (table 23, p. 45). These results could arise due to different perspectives of self- and other-ratings of adjustment. Whereas expatriates rated themselves they are likely to take their well-being into account while rating socio-cultural adjustment as well as psychological adjustment. Other-ratings are unlikely to take this into consideration. They are only able to observe behavior which does not necessarily correspond to the expatriate's well-being. This could be a reason why we found a significant correlation with self-ratings but not with other-ratings.

Our results for psychological adjustment (table 24, p. 46) support the assumption that people who get social support of co-workers in the host country are in a better mood than

those who do not. These findings also support the assumption of Ward et al. (1998) that social support influences psychological adjustment. Likewise, socio-cultural adjustment is partly influenced by co-worker's support for which we gave a possible reason above.

Logistical support

Further we did not find a relationship between logistical support of the HR department of the host country and interaction as well as general adjustment (table 25, p. 47). One possible explanation may be that the HR department of the home country is much more important, in that way that expatriates generally get their salary from the home base, are organizationally related to the HR department of the home country, and their repatriation will be arranged by the HR department at home. Likewise, a possible reason for the non-existence of a relationship may be that the support of co-workers is faster and more unbureaucratic and therefore more important for the adjustment. The results for psychological adjustment are not consistent in that the scores fluctuate over time (table 26, p. 47). But we found positive *d*-values for three quarters of the second year which indicate that expatriates who are satisfied with the HR support are in a better mood. This partly supports hypothesis 12c.

Support of other expatriates

Support of other expatriates did not appear to be related to general adjustment. We found a nearly zero correlation for self- as well as for other-ratings (table 27, p. 48). We assumed that the support of other expatriates may be helpful, especially for those who are in China for the first time, but not sufficient to facilitate adjustment to the general environment. For example living in expatriate conclaves rather inhibits the adjustment to another culture due to the fact that expatriates feel at home and they partly deny the fact that they are abroad. A further explanation may be that other expatriates support the withdrawal from host nationals and the host culture. Similarly, we did not find significant *d*-values (table 28, p. 48). The *d*-values are negative rather than positive which slightly indicates that expatriates who do *not* get support of their fellows are in a better mood than those who get support. These findings underline the explanations above. We can conclude that support of other expatriates does not have an impact on adjustment, neither for socio-cultural nor for psychological adjustment.

Contact with host nationals in leisure time

Our supposed relationship can be completely confirmed for self- as well as for other-ratings (table 29, p. 49). Expatriates who have frequent contact to host nationals in their leisure time are better adjusted to interacting with them than those who have not. Sharing interests, such as sport, literature, or music supports establishing relationships. Table 30 (p. 50) shows significant effect sizes for psychological adjustment. These sizes indicate that expatriates who have frequent contact to host nationals in their leisure time are in a better mood than those who have unfrequent or no contact to host nationals during their leisure time. Further, we supposed that expatriates with considerable amount of contact to host nationals show a deeper culture shock (reflected by the lowest point of the curve) because they are more confronted with their inadequate behavior, compared to expatriates with little or no contact to hosts. Unfortunately, we can not fully confirm this assumption. As can be seen in figure 18 (p. 50), the lowest point is in the second quarter of the first year in China. Those who have frequent contact are only slightly in a worse mood but a significant effect size is not observable. We can conclude that contacts to host nationals during leisure time are necessary for interaction adjustment as well as for psychological adjustment.

Mood curve.

Hypothesis 15 can be partially confirmed, in that psychological adjustment over time follows a U-shaped curve. Partially in that the supposed honeymoon phase is not observable although a U-shape over time becomes apparent. A possible explanation could be the measurement. Oberg (1960) reported an approximate length of the honeymoon phase (first phase) “from a few days or weeks to six months” (p. 178). Consequently, expatriates could have been in a honeymoon phase during the first 3 months abroad. Unfortunately, our scale did not allow measuring this precisely. Therefore, further research should more specific examine the first time abroad.

Analysis of the mood curve indicates that the majority of expatriates have a drop in mood after arrival. Further, evidence was found that the majority of expatriates showed the first negative mood three and six months after arrival and that the pattern in reported moods goes down then up, which indicates an increase of mood after arrival. Likewise these results contradict the fact that the majority of expatriates experience a ‘honeymoon’ phase after arrival. Overall, the findings underline the previous research literature which shows that expatriates experience a drop in their well-being or mood abroad, which increases after a while.

Limitations of the Study

One general limitation of this study is a measurement problem named *common method biases*. Common method variance problems “result from the fact that the predictor and criterion variables are obtained from the same source or rater” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, p. 881). The expatriates in our study provided information on both the independent variables, which are the Big Five dimensions and context related variables, as well as on the dependent variables, which are the degrees of socio-cultural as well as psychological adjustment. Black (1990) suggested longitudinal studies in which the personality of the expatriate can be measured before the assignment and adjustment can be measured at different intervals abroad, to be more valid. In the same way, this measurement problem “is likely to be particularly problematic in those situations in which respondents are asked to provide retrospective accounts of their attitudes, perceptions, and/or behaviors” (Podsakoff et al., 2003, p. 881). This was done for measuring psychological adjustment with the mood curve. Hence, longitudinal studies as well as supervisor, colleague, and employee ratings of adjustment which we used in our study are likewise helpful to avoid this bias. *Longitudinal studies* are therefore important because the predictors for adjustment may vary over time. Some predictors are more important shortly after arrival whereas others are important later in the adjustment process (Hechanova, Beehr, & Christiansen, 2003). Taking into account that *other-ratings* are helpful to avoid common method variance problems our study is limited by the relatively small number of other-ratings. We applied other-ratings in English or German but not in *Chinese*. It is supposable that some of the Chinese raters did not fully understand the questions in English, which they would have done, had they have been presented in their native tongue. Church (1982) states that language of presentation influences the response.

Yet another possible limitation is the *momentary mood* of expatriates which may influence the responses on the questions (Diener & Lucas, 2004; Podsakoff et al., 2003). A further effect that dilutes results is that we conducted the study in *Shanghai and Beijing*. Therefore, we asked those expatriates who were living in the most important cities in China. The infrastructure has improved rapidly over the last few years in these cities. Therefore, the expatriates have really good housing possibilities, leisure facilities, and shopping facilities. We assume that we would have got another picture had we asked expatriates in smaller cities.

Likewise, we did not analyze whether the relationship between the predictors and the criterion is *moderated* by data such as gender, age, or hierarchical level. We collected data from German speaking expatriates in China. However, this again does not allow us to

generalize our findings to other nationalities. We regard the *personality* of expatriates as very important because people are individual and perceive the world differently. Some expatriates are optimistic and some are pessimistic, which may have had an impact on the results concerning the criterion adjustment. And finally, Haslberger (2005) more generally argues that “yet data collection will influence participants’ thinking by focusing it on the topic” (p. 172).

Outlook

We just only studied the adjustment of expatriates but likewise the adjustment of family members is one antecedent for expatriate adjustment (cf. Black, 1988; Black & Stephens, 1989; Caligiuri & Lazarova, 2002; Torbiörn, 1982). Problems of adjustment for children may be a new school environment or missing leisure facilities and problems of adjustment for spouses may be employment problems (Aycan, 1997a). Researchers are aware of the importance of family adjustment but they mainly discuss the adjustment of the spouse (cf. Black & Stephens, 1989). We think it is worth and necessary to conduct more research on the *adjustment of children* who do not get enough attention as far as we know.

Only a few of published studies have investigated the influence of the five-factor model on adjustment (Deller, 2000; Shaffer et al., 2006; Swagler & Jome, 2005) rather than the influence on performance, has been explored more (e.g., Caligiuri, 2000b; Dalton & Wilson, 2000; Mol, Born, Willemsen, & van der Molen, 2005; Mount, Barrick, & Stewart 1998; Stierle, van Dick, & Wagner, 2002). Additionally, more research with the *Big Five* in the cross-cultural setting is desirable because this model describes central dimensions of personality and offers a comprehensive framework. Likewise studying *personality facets of the Big Five model* may explain our findings more specifically.

One last question, the influence of *holiday*, attracts our attention: What happens with adjustment when expatriates are on holiday at home? Is it imaginable that adjustment alters? If yes, in which direction? What happens with adjustment when expatriates take holiday in the country of assignment? Is such a holiday helpful for adjustment in that one learns more about the culture outside the business world? As far as we know, nobody has researched these questions which still have, in our opinion, an impact on adjustment.

Finally, when comparing other-ratings of adjustment we found a tendency that there is a difference between the nationality of raters and rater’s job status. However, it certainly is an aspect to keep in mind for further studies.

Conclusion

The study indicates that several factors are pivotal for expatriate adjustment. With the exception of Conscientiousness all other dimensions of the Big Five have an impact on at least one dimension of adjustment. The results indicate that Emotional Stability has an impact on socio-cultural adjustment which include general, work and interaction adjustment as well as psychological adjustment. Openness has an impact on socio-cultural adjustment whereas Extraversion and Agreeableness have an impact on psychological adjustment. Likewise, language ability and contact with host nationals during leisure time predict adjustment. These findings highlight how important living outside expatriate enclaves may be for adjustment. Social support of co-workers has been found to predict socio-cultural as well as psychological adjustment. A practical implication for organization could be to establish mentoring programmes for expatriates because these facilitate socialization. Also initiative is a clear antecedent of adjustment and should be considered when selecting future expatriates. Finally, adjustment is necessary in order for expatriates to feel comfortable 'like a fish in water'.

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Appendices

Appendix A1. Self-ratings adjustment

Ich bitte Sie nun um vier Einschätzungen, die Ihre Situation in China betreffen.

Bitte stellen Sie sich vor, dass eine Normalverteilung zu Grunde liegt. „Eins“ ist dabei eine absolute Spitzenleistung.

Verglichen mit dem Durchschnitt der in China <u>arbeitenden</u> Deutschen die Sie kennen: Wie gut haben Sie sich an die Arbeitsabläufe in China angepasst?				
1	2	3	4	5
sehr gut	besser als durchschnittlich	durchschnittlich	schlechter als durchschnittlich	sehr schlecht

Verglichen mit dem Durchschnitt der in China <u>lebenden</u> Deutschen die Sie kennen: Wie sicher sind Sie im Umgang mit Chinesen?				
1	2	3	4	5
sehr sicher	sicherer als durchschnittlich	durchschnittlich	weniger sicher als durchschnittlich	sehr unsicher

Verglichen mit dem Durchschnitt der in China <u>lebenden</u> Deutschen die Sie kennen: Wie gut haben Sie sich auf das Leben außerhalb der Arbeit (Essen, Verkehr, Gesundheitsvorsorge, etc.) in China persönlich eingestellt?				
1	2	3	4	5
sehr gut	besser als durchschnittlich	durchschnittlich	schlechter als durchschnittlich	sehr schlecht

Verglichen mit dem Durchschnitt der in China <u>lebenden</u> Deutschen die Sie kennen: Wie gut haben Sie sich insgesamt auf das Leben in China persönlich eingestellt?				
1	2	3	4	5
sehr gut	besser als durchschnittlich	durchschnittlich	schlechter als durchschnittlich	sehr schlecht

Appendix A2. Other-ratings adjustment – German version

Bevor Sie mit der Beantwortung der Fragen beginnen, bitte markieren Sie, ob Sie Kollege, Mitarbeiter oder Vorgesetzter des Expatriates sind.

Kollege Mitarbeiter Vorgesetzter

Bitte geben Sie Ihre Staatsangehörigkeit an:

chinesisch deutsch andere Nationalität: _____

Bitte beantworten Sie die folgenden Fragen, indem Sie einen **Haken** über die Zahl setzen, die Ihrer Bewertung entspricht.

Beispielsweise so:

1	2	3 ✓	4	5
Sehr gut	Gut	Durchschnittlich	Schlecht	Sehr schlecht

Jede Frage kann auf einer Skala von 1 bis 5 (entsprechend der Schulnoten) bewertet werden.

Zur Orientierung stehen unter einigen Fragen konkrete Verhaltensbeschreibungen.

Vielen Dank für Ihre Teilnahme!

Verglichen mit dem Durchschnitt der in China <u>arbeitenden</u> Deutschen die Sie kennen: Wie gut hat sich der Expatriate an die Arbeitsabläufe in China angepasst?				
1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

Verglichen mit dem Durchschnitt der in China <u>lebenden</u> Deutschen die Sie kennen: Wie sicher ist der Expatriate im Umgang mit Chinesen?				
1	2	3	4	5
Sehr sicher		Durchschnittlich		Sehr unsicher

Verglichen mit dem Durchschnitt der in China <u>lebenden</u> Deutschen die Sie kennen: Wie gut hat sich der Expatriate auf das Leben außerhalb der Arbeit (Essen, Verkehr, Gesundheitsvorsorge, etc.) in China persönlich eingestellt?				
1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

Verglichen mit dem Durchschnitt der in China <u>lebenden</u> Deutschen die Sie kennen: Wie gut hat sich der Expatriate insgesamt auf das Leben in China persönlich eingestellt?				
1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

Appendix A3. Other-ratings adjustment – English version

Before you start, please checkmark whether you are a colleague, supervisor or employee of the expatriate.

Colleague

Supervisor

Employee

Please indicate your nationality:

Chinese

German

other nationality: _____

Please rate the following questions by making a checkmark in the number cell that corresponds to your rating.

For example:

1	2	3 ✓	4	5
Very well	Well	Average	Bad	Very Bad

Each question can be rated on a scale, which ranges from 1 to 5.

A normal distribution is the basis.

For your better orientation there are closer descriptions of the addressed behavior written below some scales.

Thank you for taking part!

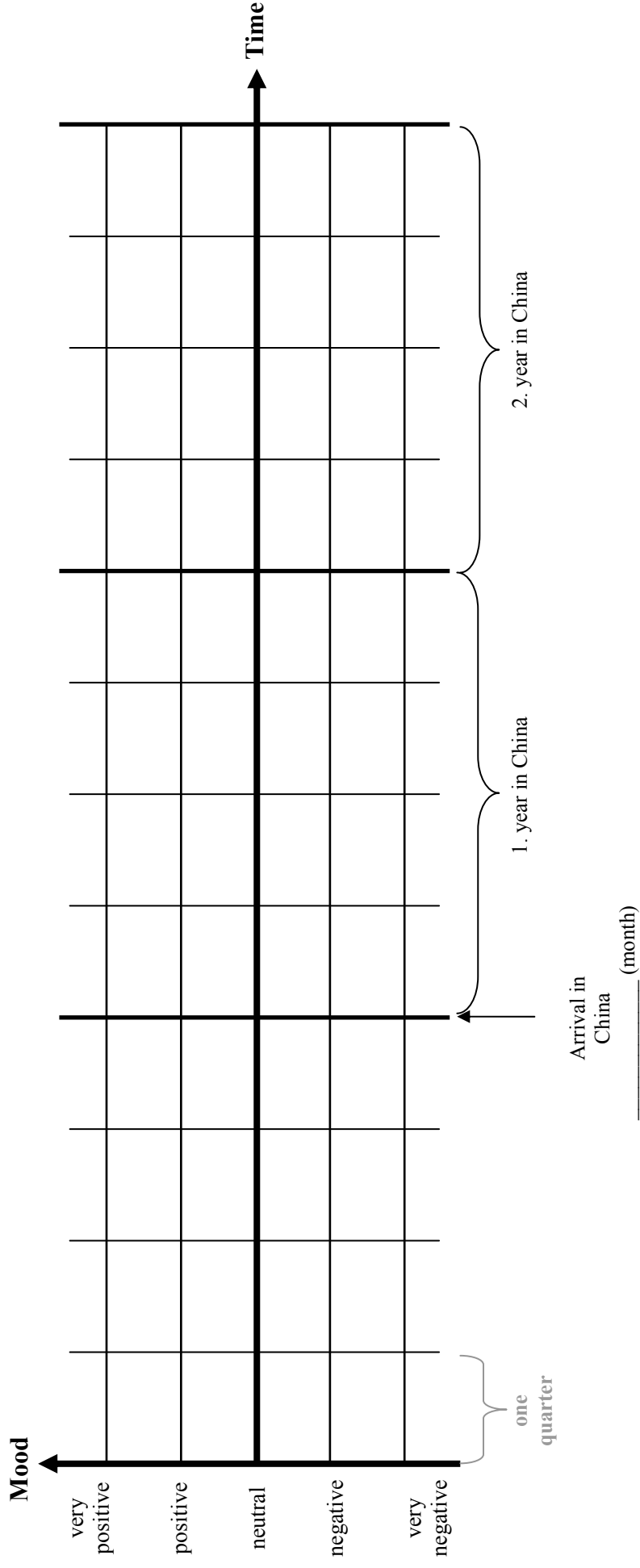
Compared to the average German working in China that you know: How well did the expatriate adjust to working in China?				
1	2	3	4	5
Very well		Average		Very badly

Compared to the average German working in China that you know, how confident is the expatriate when interacting with Chinese?				
1	2	3	4	5
Very confident		Average		Very unconfident

Compared to the average German working in China that you know, how well did the expatriate adjust to life outside of work in China (food, traffic, health, etc.)?				
1	2	3	4	5
Very well		Average		Very badly

How would you rate the expatriate's overall adjustment in comparison to an average German colleague living in China?				
1	2	3	4	5
Very well		Average		Very badly

Appendix B. Mood curve



Appendix C. Uncorrected correlates of socio-cultural adjustment ratings
Emotional Stability

Appendix C. Uncorrected correlates of socio-cultural adjustment ratings – Emotional Stability

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Emotional Stability	135	.30	.15	.46	66	-.03	-.28	.21

Appendix D. Uncorrected correlates of interaction adjustment ratings
 Extraversion

Appendix D. Uncorrected correlates of interaction adjustment ratings - Extraversion

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Extraversion	135	.08	-.09	.25	66	.23	.00	.46

Appendix E. Uncorrected correlates of socio-cultural adjustment ratings
 Openness

Appendix E. Uncorrected correlates of socio-cultural adjustment ratings - Openness

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Openness	135	.25	.09	.41	66	.08	-.16	.32

Appendix F. Uncorrected correlates of interaction adjustment ratings
Agreeableness

Appendix F. Uncorrected correlates of interaction adjustment ratings - Agreeableness

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Agreeableness	135	.11	-.06	.28	66	.20	-.03	.43

Appendix G. Uncorrected correlates of work adjustment ratings
Conscientiousness

Appendix G. Uncorrected correlates of work adjustment ratings - Conscientiousness

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Conscientiousness	135	.06	-.11	.23	65	-.05	-.29	.20

Appendix H. Uncorrected correlates of socio-cultural adjustment ratings
 Language proficiency

Appendix H. Uncorrected correlates of socio-cultural adjustment ratings – Language proficiency

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Language proficiency	139	.30	.14	.45	68	.35	.14	.56

Appendix I. Uncorrected correlates of socio-cultural adjustment ratings
 Prior international experience

Appendix I. Uncorrected correlates of socio-cultural adjustment ratings – Prior international experience

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Prior international experience	139	-.01	-.18	.15	68	-.04	-.28	.20

Appendix J. Uncorrected correlates of socio-cultural adjustment ratings
Culture novelty

Appendix J. Uncorrected correlates of socio-cultural adjustment ratings – Culture novelty

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Culture novelty	139	-.06	-.22	.11	68	-.12	-.36	.12

Appendix K Uncorrected correlates of socio-cultural adjustment ratings
 Cross-cultural training

Appendix K. Uncorrected correlates of socio-cultural adjustment ratings – Cross-cultural training

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Cross-cultural training	139	.01	-.16	.18	68	.21	-.02	.44

Appendix L. Uncorrected correlates of work adjustment ratings
Support of co-workers

Appendix L. Uncorrected correlates of work adjustment ratings – Support of co-workers

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Support of co-workers	137	.22	.06	.38	67	.12	-.12	.35

Appendix M. Uncorrected correlates of interaction and general adjustment ratings
Logistical support

Appendix M. Uncorrected correlates of interaction and general adjustment ratings – Logistical support

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
HR: Interaction adjustment	92	.15	-.05	.35	39	.13	-.18	.45
HR: General adjustment	92	.00	-.20	.21	39	.09	-.23	.40

Appendix N Uncorrected correlates of general adjustment ratings
Support of other expatriates

Appendix N. Uncorrected correlates of general adjustment ratings – Support of other expatriates

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Support of other expatriates	139	.00	-.16	.17	68	.03	-.21	.27

Appendix O. Uncorrected correlates of interaction adjustment ratings
 Contact with host nationals in the leisure time

Appendix O. Uncorrected correlates of interaction adjustment ratings – Contact with host in the leisure time

Variable	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI for <i>r</i>		<i>n</i>	<i>r</i>	95% CI for <i>r</i>	
			Lower	Upper			Lower	Upper
Contact with host nationals	139	.30	.15	.45	68	.26	.04	.49
