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Extraversion as a predictor of Expatriate Success

An empirical study of German Expatriates working in Costa Rica

Erstgutachter: Prof. Dr. Jürgen Deller
Zweitgutachterin: Dipl. Wirtschaftspsychologin (FH) Anne-Grit Albrecht

eingereicht von: Sunnhild Wichern
Mitteldorf 8
27383 Westervesede

Matrikelnummer: 300 10 87

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Eidesstattliche Erklärung

Hiermit versichere ich, dass ich die vorliegende Arbeit selbstständig angefertigt und keine anderen Hilfsmittel als die angegebenen genutzt habe. Die aus anderen Werken entnommenen Wortlaute und Gedanken habe ich in den einzelnen Fällen als solche durch Angabe der Quelle gekennzeichnet. Die Arbeit hat in gleicher Form noch keiner anderen Prüfungsbehörde vorgelegen.

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Abstract

Expatriate success divided into two criteria, expatriate adjustment and expatriate job performance, is analyzed in relation to extraversion and its facets. Measurements of the Big Five and scales of adjustment as well as job performance were used by interviewing a sample of 80 German, Austrian and Swiss expatriates working in Costa Rica.

The overall extraversion trait, gregariousness, assertiveness, and activity show meaningful effects on expatriate job performance.

By analyzing expatriate adjustment and its relationship with extraversion and corresponding facets moderate effects were found between activity and interaction adjustment. Positive emotions with interaction adjustment as well as positive emotions with general adjustment show the largest effects. Furthermore, small effects were found for activity and warmth in respect to expatriate adjustment. Finally, suggestions for further research concerning extraversion in expatriate management are given.

Zusammenfassung

Im Hinblick auf den Erfolg von Auslandsentsendungen wird das Persönlichkeitsmerkmal Extraversion in Verbindung mit zwei unterschiedlichen Kriterien untersucht, Anpassung und Arbeitsleistung. Für diese Untersuchung wurde eine Stichprobe mit 80 deutschen, österreichischen und schweizerischen Auslandsentsandten in Costa Rica erhoben.

Die größten Effekte in der Arbeitsleistung lieferten Gesamt-Extraversion bezogen auf die Gesamtarbeitsleistung und Durchsetzungsfähigkeit bezogen auf Führung.

In der Untersuchung von Anpassung und Extraversion mit seinen Facetten wurden mittelmäßige Effekte zwischen der Facette Aktivität und Anpassung in Interaktionen gefunden. Frohsinn lieferte die größten Effekte sowohl im Zusammenhang mit Anpassung in Interaktionen als auch mit genereller Anpassung. Außerdem zeigen die Ergebnisse kleinere Effekte von Aktivität und Herzlichkeit in Verbindung mit Anpassung. Weitere interessante Untersuchungsansätze zu Extraversion und Auslandsentsendungen werden am Ende der Studie vorgeschlagen.

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III Abbreviations and Statistical Symbols

α	Alpha: Internal consistency reliability of a variable (Cronbach's α)
GMAC	Global Relocation Services
GLOBE	Global Leadership and Organizational Behavior Effectiveness Research Project
N	number of members in the total sample size
n	number of members in a limited portion of the total sample
NEO-PI-R	Revised NEO Personality Inventory
r	Pearson product moment correlation coefficient
SD	Standard Deviation

1. Introduction

The present text treats the subject of German expatriates' success in working and living in Costa Rica. A survey report about global relocation trends indicates that 69% of the respondents who were company representatives of a range of industries reported an increase in the number of expatriates in the year 2006 (GMAC Global Relocation Services [GMAC], 2007). More than half of them (65%) believed that the expatriate population would continue increasing in 2007 (GMAC, 2007). This development is also predicted by a study of the German Association of Chambers of Commerce and Industry. German companies doing international business seem to expect a great commercial dynamic for the next years in Latin America which is on the third place after Rumania and Greece in a global comparison (Deutsche Industrie- und Handelskammer, 2007).

In expatriate management companies have to pass several challenges. The most important point builds cost management. GMAC's (2007) survey reports that 51% of the companies were reducing expenses for international assignments in response to economic conditions in 2006. A possible reason for high costs in expatriate management can be that ten percent of assignments are not completed because of premature return (GMAC, 2007). Respondents see responsible factors for that among other things in the inability to adapt (47%) and poor candidate selection (39%) (GMAC, 2007). Further studies mention poor expatriate performance to be problematic (Aycan & Kanungo, 1997).

The present study aims to reveal some contributions to efficient expatriate selection by considering one personality trait, called extraversion. This extraversion trait will be investigated in relation to expatriate adjustment and expatriate performance abroad which are considered to build expatriate success. For this purpose data from 80 German, Austrian and Swiss expatriates working in Costa Rica are analyzed. It is aimed to find relevant extraversion facets which can predict the adjustment and performance of German expatriates in Latin America in order to offer new contributions for expatriate selection.

2. Theory

The following section presents first cultural differences between Germany and Costa Rica, then relevant assumptions corresponding to the relationship of extraversion and expatriate job performance as well as expatriate adjustment.

Before starting with the theory of this study definitions should be clarified. Aycan and Kanungo (1997) define expatriates as employees who are sent in a foreign country for a pre-designed temporary time period between six month and five years. However, in expatriate management practice assignment durations seem to differ to a much larger degree (in long-term as well as in short-term assignments) (GMAC, 2007). Consequently within this study it is agreed with a broader definition by Ones and Viswesvaran (1997) who see expatriates as “individuals who go overseas for accomplishing a job related goal” (Ones & Viswesvaran, 1997 p. 64). In accordance with Aycan and Kanungo (1997) in this study the following criteria are considered to be relevant for expatriate success:

- adjusting to the new culture
- meeting the performance standards

Before examining these two criteria in relation to the personality trait extraversion and its facets it will be investigated cultural differences between Germany and Costa Rica in the following session.

2.1 Cultural differences between Germany and Costa Rica

To clarify that there are several cultural differences between the countries Costa Rica and Germany this study refers to the GLOBE study realized by House, Hanges, Javidan, Dorfman, and Gupta (2004) in 62 societies. Within the GLOBE study researchers distinguished between society practice and society values. Society practice refers to questions about the real actual facts (“the way things are”) whereas society values ask for personnel judgments to these facts (“the way things should be”) (Javidan, House, & Dorfman, 2004).

The analyzed societies were clustered into ten geographical groups: Latin America (including Costa Rica), Latin Europe, Confucian Asia, Nordic Europe, Anglo, Sub-Saharan Africa, Southern Asia, Germanic Europe (including Germany), Middle East, and Eastern Europe. Within the GLOBE study the following nine cultural dimensions were developed (House & Javidan, 2004):

- *Uncertainty avoidance* expresses the extent to which people of a society try to avoid unpredictable future events by relying on social norms and rituals.
- *Power distance* describes the degree to which people expect hierarchical organizations with different levels of power.

- *Collectivism I - institutional collectivism* is the extent to which collective actions are rewarded in a society.
- *Collectivism II - in-group collectivism* describes the individual level of pride and loyalty to an organization or family.
- *Gender egalitarianism* expresses the reduction of differences in a society between males and females.
- *Assertiveness* which is investigated as an extraversion facet in the present work can also be considered as cultural dimension, as mentioned in the Globe study (2004). Cultural *assertiveness* refers to confrontational and aggressive behaviors of individuals in a society.
- *Future orientation* describes the level of individual engagement in future-oriented behavior.
- *Performance orientation* refers to the degree to which members are encouraged to improve their performance.
- *Humane orientation* is the aspect to reward fair, friendly, and generous individuals for their behavior

A comparison of the cultural dimensions between Germany and Costa Rica shows that Germans have higher *performance orientation* than Costa Ricans (Javidan, 2004).

The results further indicate that in Costa Rica higher levels of both *in-group* and *institutional collectivism* (Gelfand, Bhawuk, Hisae Nishi, & Bechthold, 2004) as well as higher *power distance* can be found (Carl, Gupta, & Javidan, 2004) than in Germany.

In the dimensions *future orientation*, *assertiveness* and *uncertainty avoidance* one can establish that there is a discrepancy between the two society aspects. In all three mentioned dimensions the German data shows a higher level than the Costa Rican ones in questions referring to society practice, but a lower one in society value. This means in Germany can be found higher *future-oriented practice* but lower *future-oriented value*, higher *assertive practice* but lower *assertive value* and higher *uncertainty avoidance* in practice but lower one in value than in Costa Rica (Ashkanasy, Gupta, Mayfield, & Trevor-Roberts, 2004; Den Hartog, 2004; De Luque & Javidan, 2004).

Furthermore, in contrast to Costa Rica Germany seems to have high values in *gender egalitarianism* and *humane orientation* but low practices in these dimensions (Emrich, Denmark, & Den Hartog, 2004; Kabasakal, & Bodur, 2004).

The aforementioned cultural differences between Germany and Costa Rica proof that Germans going to Costa Rica are challenged to adjust to foreign values und practices.

Several researchers assume that the greater the cultural difference from their own one the more difficult it could be for expatriates to adjust and perform in this society (McEvoy & Parker, 1997; Deller, 1997; Black, Mendenhall, & Oddou, 1991). Hence personality may play an important role in expatriate success.

Each country seems to have individual conditions in living aspects (GMAC, 2007). In respect to Costa Rica it can be supposed that criminality, tropical climate with its influences on healthiness or possible disasters like hurricanes and the infrastructure can be challenging for German expatriates (Auswaertiges Amt, 2008). In addition to this the country of assignment can be an important aspect in expatriate adjustment because certain regions appear to have greater cultural barriers in the adjustment process than others (Gross, 2002). During the present paper it is assumed that German expatriates working in Costa Rica go through a challenging adjustment process even if cultural barriers seem to be small. Moreover, it is assumed that personality can have effects on the adjustment and performance process. Hence this study will focus on the personality trait extraversion as it can be expected to be a valid predictor of the expatriate's adjustment and job performance in unfamiliar situations.

2.2 Predictor Extraversion with its facets

As predictor of expatriate success the study refers to the Big Five personality traits which are openness, conscientiousness, extraversion, agreeableness and neuroticism (Ostendorf & Angleitner, 2004). They are known to be "robust and generalizable across different types of assessment, rating sources, cultures, language, and gender as well as a variety of factor extraction and rotation methods" (Hough & Ones, 2001, p. 235).

Within this study it will be concentrated on one of the five factors in detail called extraversion which is described by Hough and Ones (2001) as one of the most robust trait across cultures because it is replicated reliably in a great number of studies. Extraversion consists of six facets (Amelang, Bartussek, Stemmler, & Hagemann, 2006):

- *Warmth*
- *Gregariousness*
- *Assertiveness*
- *Activity*
- *Excitement-seeking*
- *Positive emotions*

Ostendorf and Angleitner (2004) describe the facets in detail as follows: *Warmth* should be seen as a facet being important for building interpersonal relations. It refers often to cordiality and kindness. *Gregariousness* relates to the individual preference of being with others. Dominant, energetic, and talkative people generally show a high level in *assertiveness*. The facet *activity* describes busy people with a great extent of energy. People high in *excitement-seeking* are always searching for stimulation and adventure. The facet *positive emotions* describes people who are optimistic, happy, and cheerful.

In the following it will be argued that extraversion plays an important role in expatriate job performance. Below relevant performance dimensions will be explained.

2.3 Criterion Expatriate Job Performance and Extraversion

2.3.1 Expatriate Job Performance

As Ones and Viswesvaran (1997) describe it is important to distinguish between performance and effectiveness. While performance can be viewed as evaluation of behavior and outcomes for organization goals, effectiveness is the evaluation of performance results (Ones & Viswesvaran, 1997).

About the construct expatriate job performance there are still discussions. Ones and Viswesvaran (1997) argue for nine components of job performance in a domestic context: productivity, quality, leadership, interpersonal relations, communication competence, administrative competence, effort and initiative, and compliance with/acceptance of authority. Caligiuri (1997) proposes a theory of expatriate performance including only four dimensions: technical performance, contextual performance divided into managerial and prosocial performance and expatriate-specific performance. Further Arthur and Bennett (1997) present eight job performance factors to be relevant which are: job-specific task proficiency, non-job-specific task proficiency, written and oral communication, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision/leadership, and management/administration.

The three performance models were compared to each other and grouped together by independent raters and finally developed as performance scale with eight dimensions, as basis for the present investigation:

- *Job-specific task proficiency* refers to the dimension quality proposed by Ones and Viswesvaran (1997) and to technical performance suggested by

Caligiuri (1997). This dimension measures the participant's performance in terms of responsibilities, technical tasks, and job-related knowledge.

- *Supervision* is similar to the component leadership proposed in the research of Ones and Viswesvaran (1997) and relates to the expatriate's ability to persuade others, set goals and develop subordinates.
- *Demonstrating effort* refers to Ones' and Viswesvaran's (1997) component effort and initiative and concentrates on job dedication, persistence and consistency.
- *Nonjob-specific task proficiency* describes tasks which are not directly related to the expatriate's job responsibility but to the organizational understanding, additional tasks and culture-related knowledge.
- The dimension *management and administration* refers to the expatriate's ability to work with different organizational groups.
- The dimension *self-sufficiency* refers to the expatriate's extent of working independently.
- *Oral and written communication* tests the competencies in gathering and transmitting oral and written information.
- *Facilitating peer and team performance* measures to which degree the expatriate supports team performance.

2.3.2 Expatriate Job Performance and Extraversion

In respect to construct validity of personality tests there are still discussions about the "bandwidth-fidelity-dilemma". This dilemma expresses the conflict between the bandwidths of the predictor and the corresponding criteria (Schuler & Höft, 2006). Schuler and Höft (2006) argue that specified predictors can only indicate specified criteria and not global ones. In reverse global predictors can only be valid for global criteria. Considering this aspect in formulating hypotheses is expected to have the effect of improved construct validity in order to be sure to address the right construct in the predictor. The present study aims to consider this aspect in setting up hypotheses by using comparable bandwidths for both the criteria as well as the predictors (Deller & Albrecht, 2007). First global measures of extraversion and overall job performance will be analyzed followed by a more detailed investigation of the relationship between special extraversion facets with special performance dimensions.

Within the first hypothesis the whole extraversion trait will be examined. Mol, Born, Willemsen, and van der Molen (2005) found in their meta-analysis a correlation of $r = .14$ between extraversion and job performance stating that among others extraversion “seem[s] to be indicator of success in the foreign assignment” (Mol et al., 2005, p. 612). Hurtz and Donovan (2000) found a rather low but stable relation between extraversion and sales as well as managerial jobs in domestic contexts. As expatriates often fulfill similar jobs to sales and management in the host country one can also expect extraversion to accounting for variance in expatriate performance. Hence expatriates scoring high in extraversion are expected to perform well in a foreign assignment which will be analyzed in respect to German expatriates in Costa Rica by the following first hypothesis.

Hypothesis 1: Extraversion is positively related to overall expatriate job performance.

In consideration of the bandwidth-fidelity-dilemma (Schuler & Höft, 2006) now the investigation will go into detail by matching relevant extraversion facets to different performance dimensions. In the following each extraversion facet will be considered individually beginning with *gregariousness*, then *assertiveness*, *activity*, *warmth*, *excitement-seeking* and *positive emotions*.

The whole extraversion trait was found to be the most important trait in leading (Judge, Bono, Ilies, Gerhardt, 2002). Going into detail the facet *gregariousness* may play an important role in the *supervision* dimension because gregarious people like interacting with others and building new contacts, are talkative and entertaining (Ostendorf & Angleitner, 2004). That could be the reason for the ability to establish a trustful and honest relationship to subordinates. Caligiuri (1995) for example, found that among other aspects sociability was an individual characteristic predictive of supervisor-rated technical performance. In addition to this there was found a relationship between *gregariousness* and interpersonal sensitivity of $r = .24$ (Furnham, Crump, & Whelan, 1997) which appears to be connected with *gregariousness*. Hence the following hypothesis will examine this relation in respect to expatriates in Costa Rica.

Hypothesis 2: *Gregariousness* is positively related to the performance dimension *supervision*.

Assertiveness seems to have an intuitive evident relationship with *supervision* because as a supervisor a certain level of dominance, assertiveness, determination, and self-assertion is generally advantageous. Within the study of Furnham et al. (1997) the researchers present the facet *assertiveness* to be connected with drive to lead ($r = .49$). Hence the link between *assertiveness* and *supervision* will be further investigated within the present study in hypothesis 3a.

Assertiveness can also be seen as important facet for *demonstrating effort* because assertive individuals are described to be dominant, energetic, leading, tough, and emphatic (Ostendorf & Angleitner, 2005) which can be viewed as an aspect of showing effort. Moreover, Furnham et al. (1997) reveal a correlation between *assertiveness* and drive to achieve of $r = .35$. Supposed that people with a high level of drive to achieve demonstrate a lot of effort these results support the following hypothesis.

Hypothesis 3a-b: *Assertiveness* is positively related to the performance dimensions (a) *Supervision* and (b) *Demonstrating Effort*.

Activity will be considered with regards to his relationship with expatriate job performance dimension *supervision* in the next hypothesis. Furnham et al. (1997) report a correlation between the facet *activity* and drive to lead of $r = .31$ which can be seen as a part of *supervision*. Moreover, for the *supervision* dimension *activity* seems to be important, because a supervisor has to act as role model for subordinates. In addition to this *supervision* includes as main tasks encouraging and motivating subordinates. Without any ambitions to be active supervisors probably will not succeed in leading subordinates adequately which influences their performance negatively. So as assumed in hypothesis 4a a certain level of *activity* can be expected by supervisors.

Activity also seems to be an important facet for the performance dimension *demonstrating effort* because energetic people with a high thirst of action (Ostendorf & Angleitner, 2004) are often described as individuals showing effort. Furnham et al. (1997) show a connection between these two aspects of $r = .43$. Further Ones and Viswesvaran (1997) suggest the *activity* component “likely to explain variance in the effort and initiative component of expatriate job performance” (Ones & Viswesvaran, 1997, p. 83). Hence there are suggestions about a certain link between *activity* and *demonstrating effort*.

Hypothesis 4a-b: *Activity* is positively related to the performance dimensions (a) *Supervision* and (b) *Demonstrating Effort*.

Warmth as extraversion facet will not be considered in relation to expatriate job performance as there seems to be no apparent link. The present study follows the assumption that *warmth* accounts more for interpersonal aspects like building new relationships and being accepted by others than for job performance. Hence this facet will be considered in detail in respect to expatriate adjustment.

Excitement-seeking neither will be analyzed with regards to job performance. In accordance with Ones and Viswesvaran (1997, p. 83) extraverts are “more likely to accept foreign assignments because they seek excitement and stimulation”. But it is not assumed that it will have any influence on job performance and its dimensions during the assignment.

Also *positive emotions* will not be considered in the analysis because this facet does not seem to show any direct link to job performance aspects like supervision, proficiency or management.

2.4. Criterion Expatriate Adjustment and Extraversion

2.4.1 Expatriate Adjustment

Adjustment in respect to expatriates generally can be defined as the degree of psychological comfort with various aspects of a host country (Parker & McEvoy, 1993; Caligiuri, 2000) or absence of stress (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005). During the last years a multifaceted framework proposed by Black, Mendenhall, and Oddou (1991) of international adjustment seemed to be accepted in expatriate research:

- *Adjustment to work or work adjustment*
- *Adjustment to interacting with host nationals or interaction adjustment*
- *Adjustment to general environment, general or cultural adjustment*

Interaction adjustment describes the aspect of socializing with host country nationals. *Work adjustment* refers to job requirements. *General adjustment* describes the degree of adjustment to the whole environment (Black, Mendenhall, & Oddou, 1991).

The three described adjustment criteria have to be relevant for living and working in a foreign country (Black, Mendenhall, & Oddou, 1991). Several researchers replicated this multifaceted model of cross-cultural adjustment by factor analyzing the structure

(Parker & McEvoy, 1993; McEvoy & Parker, 1997; Shaffer, Harrison, & Gilley, 1999). Within the current study this framework will also be accepted in order to add some new contributions in respect to its relationship with extraversion and its facets.

2.4.2 Expatriate Adjustment and Extraversion

In the following section the relationship between the three expatriate adjustment facets and extraversion will be examined. First in order to align the bandwidths of predictors and criterion accordingly to each other the global extraversion trait will be analyzed in reference to the global criterion expatriate adjustment. After that the extraversion facets will be considered individually linking to different adjustment facets.

Extraversion seems to be linked to *overall adjustment*. Results of a meta-analysis conducted by Bhaskar-Shrinivas et al. (2005) showed that there are small to large correlations between relational skills and all three facets of adjustment (general $r = .32$, interaction $r = .53$, and work adjustment $r = .15$). All three facets of expatriate adjustment were investigated meta-analytically by Hechanova, Beehr, and Christiansen (2003) in relation to frequency of interaction with host nationals. As one can imagine that extraverts seem to have very often contact to others this measurement could be referable to the personality trait extraversion. Hence Hechanova et al. (2003) found correlations for all three facets of adjustment, interaction ($r = .49$), general ($r = .24$) and work adjustment ($r = .28$) supporting our following hypothesis.

Hypothesis 5: Extraversion is positively related to the expatriate's *overall adjustment*.

Now the three adjustment scales will be analyzed in respect to the extraversion facets in detail beginning with *gregariousness*. It seems to be obvious that a certain level of *gregariousness* influences the expatriate's adjustment degree, especially the *interaction adjustment*. One can suppose extraverts being better able to build new relationships than introverts. Lucas, Diener, Grob, Suh, and Shao. (2000) argue that social interaction has more rewarding effects for extraverts than for introverts. This is the reason why extraverts are very sensitive to rewards and therefore comfortable in social situations. Further Caligiuri (1995) found sociability to be predictive for cross-cultural adjustment (corresponding to *general adjustment*) and supports the positive relationship in a later study again (Caligiuri, 2000). A typical characteristic of extraverts is to easily

build new contacts and to communicate a lot (Ostendorf & Angleitner, 2004). Frequent interactions with host nationals are established to facilitate adjustment (Hechanova et al., 2003). As the aspect of building new contacts refers to all three facets of adjustment one can expect a positive relationship between *gregariousness* and *interaction, work* as well as *general adjustment*.

Hypothesis 6a-c: *Gregariousness* is positively related to expatriate's (a) *work*, (b) *interaction* and (c) *general adjustment*.

Assertiveness may affect the expatriate's adjustment negatively because this characteristic refers to dominance, leading, and self-assertion (Ostendorf & Angleitner, 2004). These traits might be seen as a contradiction to adjustment as will be explained in the following. With this opinion agree Costa and McCrae (1992) who state that extraverts are sociable and feel comfortable being together with others in groups but are assertive, self-confident and dominant at the same time. They see a certain contradiction between being sociable and dominant because dominance can have negative effects on sociable aspects like interaction with others. Furthermore, researchers come to the idea that individuals high in sociability would have a large number of social ties, while individuals exhibiting high levels of *assertiveness* may have fewer social ties (Van Vianen, De Pater, Johnson, Kristof-Brown, & Klein, 2003). Dalton and Wilson (2000, p. 253) even suggest that "behaviors that characterize ambition and dominance may be negatively perceived in some cultures and outweigh the facets of extraversion related to warmth and gregariousness." This is the reason for the assumption that *assertiveness* may have negative influence on adjustment in all three facets.

Hypothesis 7a-c: *Assertiveness* is negatively related to the expatriate's (a) *work*, (b) *interaction* and (c) *general adjustment*.

Activity can be a relevant predictor of expatriate adjustment because the description of active people refers to a high level of energy and a hectic life (Ostendorf & Angleitner, 2004). Within their meta-analytic review Hechanova et al. (2003, p.221) state in their investigation that "frequency of interaction with host nationals moderately correlated with general and work adjustment ($r_{c [corrected]} = .24$ to $.28$) and was strongly correlated with interactional adjustment ($r_{c [corrected]} = .49$)." Frequent interaction with host

nationals can be seen as one example of the *activity* dimension. It can be transferred to many other life aspects. It is assumed that *activity* can be responsible for a greater learning effect concerning the host culture. Hence it will influence all three facets of expatriate adjustment.

Hypothesis 8a-c: *Activity* is positively related to the expatriate's
(a) *work*, (b) *interaction* and (c) *general adjustment*.

Warmth should be related to the three adjustment facets as well because it can be expected to account largely for interpersonal relationships which require sensitivity and understanding. There was found a connection between interpersonal sensitivity and social adaptability ($r = .42$) by Furnham et al. (1997) supporting the following assumption. Moreover, Sullivan and Hansen (2004) revealed *warmth* to be mainly responsible for the association between social interest and extraversion. This is the reason why *warmth* potentially has effects on all three facets of expatriate adjustment.

Hypothesis 9a-c: *Warmth* is positively related to expatriate's (a) *work*,
(b) *interaction* and (c) *general adjustment*.

Positive emotions appear to explain the positive relationship between extraversion and optimism (Furnham et al., 1997). Hence extraverts seem to be more optimistic than introverted people and consequently feel generally a greater satisfaction in everything they do. This could be the reason why extraverts may feel better adjusted to a foreign country than introverts. Moreover, extraverts can maintain a more positive balance than introverts what means that they are able to prolong positive affective states and therefore maybe feel easily comfortable in a foreign assignment (Lischetzke & Eid 2006). One can therefore believe that extraverts discourage less quickly than introverts, both in host and domestic contexts. This emotional mood maintenance and optimistic characteristic may influence *general* and *work adjustment* as well as *interaction* aspects of expatriate adjustment.

Hypothesis 10a-c: *Positive Emotions* are positively related to expatriate's
(a) *work*, (b) *interaction* and (c) *general adjustment*.

Excitement-seeking can be seen once again as relevant predisposition accounting for the acceptance of foreign assignments (Ones & Viswesvaran, 1997) but not necessarily for adjustment process itself.

3. Methods

This section presents first the general procedure of acquiring participants and conducting the data collection by interviewing them. After that the measurement of the personality trait extraversion and its six facets is described. Then the scales of the dependent variables expatriate job performance and expatriate adjustment will be explained. Finally, the whole sample is presented by demographic data.

3.1 Procedure

The Chamber of Commerce in Costa Rica made available 75 names with corresponding contact data of German, Austrian and Swiss expatriates working in Costa Rica. Via email the expatriates were briefly presented the investigation purposes and asked to take part to an interview. Some expatriates agreed quickly by suggesting an interview date. Before starting the journey already fifteen expatriates were willing to participate in an interview resulting in a response rate of 20%. Others were contacted later in Costa Rica by phone in order to check their participation agreement. During the data collection further participants were recruited by snowball-effect.

The interview started with questions about the expatriate's best and worst moments and experiences in Costa Rica as a warming up. Then the expatriates were asked about demographics like age, gender, education, and job affairs. After that the participants filled out the NEO-PI-R (Ostendorf & Angleitner, 2004) which is described in the next section as independent variable. Then the expatriates themselves estimated their adjustment and their job performance in the host country. Expatriates were asked for other-rated adjustment and performance given by their colleagues, supervisors or employees if possible.

3.2 Extraversion as independent variable

Within this research project the personality trait extraversion was measured by the self-rating version of the NEO-PI R developed by Ostendorf and Angleitner (2004) who translated the original version (Costa & McCrae, 1992) from English into the German language. This multidimensional personality questionnaire measures the stable Big Five personality traits extraversion, agreeableness, conscientiousness, emotional stability, and openness. Altogether it contains 240 items resulting in 48 per trait. As this study just focuses on the extraversion trait only the corresponding 48 items to this trait are considered in the statistical analysis. Each of the six extraversion facets (*warmth*, *gregariousness*, *assertiveness*, *activity*, *excitement-seeking*, and *positive emotions*) is tested eight times within the questionnaire. The participants were asked to assess every item which is expressed as a statement by using a 5-point-Likert-scale going from “strongly disagree” to “strongly agree”.

In this investigation the NEO-PI R was utilized because the instrument has good psychometric overall criteria, especially the constructs seem to be generalizable, universal across cultures and the instrument has a good predictive validity (Muck, 2006). Internal consistencies of the overall self-rated extraversion dimension range from .86 to .90 for people in the age between 21 and 50 in the test in general (Ostendorf & Angleitner, 2004). The extraversion facets’ internal consistency for instance is assessed to be satisfactory due to the low number of items per facet (Ostendorf & Angleitner, 2004).

3.3 Expatriate Job Performance as dependent variable

Expatriate job performance was measured by a 17-item questionnaire for both self- and other-rated version. Within the statistical analysis only the other-rated version will be considered assuming to receive more valid results. The questionnaire was available in English as well as in German. Three items tested *job-specific task proficiency* which measured the expatriate’s responsibility in respect to tasks, obligations, and technical tasks in comparison to an average German colleague living in Costa Rica as well as job-related knowledge. The dimension *supervision* was measured three times by assessing the expatriate’s ability to develop subordinates, to persuade others and setting goals. The expatriate’s dedication to the job, persistence under adverse conditions, consistency in performance, and punctuality in completing tasks referred to the dimension

demonstrating effort and was assessed in four items. *Non-job-specific task proficiency* included three items referring to the expatriate's understanding of long-term goals, engagement in additional task and culture-related job-knowledge. *Management and Administration, self-sufficiency, oral and written communication* as well as *facilitating peer and team performance* were measured once.

The items were rated on a 5-point-Likert-scale ranging from 1 to 5. To avoid misunderstandings sometimes behavioral examples were given on the endpoints and the middle points of the scale. For example to facilitate the assessment of the expatriate's ability in persuading others 1 was anchored with the description "persuades others of his own ideas and goals every time when a decision is pending", 3 was described as "persuades others of his own ideas and goals on an average level when a decision is pending" and 5 referred to the description "never persuades others of his own ideas and goals when a decision is pending". The whole expatriate job performance scale shows an internal consistency of .87 (Cronbach's α) which can be considered as good.

3.4 Expatriate Adjustment as dependent variable

The three facets of expatriate adjustment (Black, Mendenhall, & Oddou, 1991) were investigated by self and others-rated questionnaire with four items. So each facet was measured by one item. One additional question referred to overall expatriate adjustment. The expatriate's adjustment was judged in comparison to the average of Germans working in Costa Rica on a 5-point-Likert-scale. The end and middle points of the scale were described by corresponding explanation to avoid misunderstandings. The expatriate adjustment scale showed an internal consistency of .80 (Cronbach's α) and though is good.

3.5 Demographics of German Expatriates in Costa Rica

All in all for this research project 80 German expatriates working in Costa Rica were interviewed. From the list of 75 expatriates received by the German Costa Rican chamber of commerce 45 people took part to the interview which consequently results in response rate of 55.6%. The remaining 44.4% corresponding to 36 participants were recruited by snowball effect.

The average age of all participants together was 46.6 years ranging from 26 to 73 years. The majority (72.8%) of the sample was male. Almost three quarters (74.1%) of the expatriates were married and 9.9% had a life partner. The majority of the expatriate's partner (98.5%) and children (97.8%) lived in Costa Rica. More than 60 percent of the participants (64.2%) stated having worked already in another foreign country before their assignment in Costa Rica. University education had 60.5% of all participants and a doctoral degree had 16.0% of the sample while the others had different school degrees.

More than three quarters (77.8%) of the sample went to Costa Rica on the assumption that their working time in this country would be limited. The average duration of these assignments was 35 month. The remaining 22.2% went to Costa Rica without any intention of limitation in their stay. This group has already been in Costa Rica for several years in contrast to expatriates who were sent by their company recently. As a consequence all 80 expatriates together indicated that they have been in this country on the average level of 122 month which is interpreted as quite long in expatriate management (GMAC, 2007). A large part (43.2%) answered not to have any plans to go back to Germany.

4. Results

Before presenting the results in detail a short overview will be given by explaining the dealing with measurement errors, significant testing and exclusions from the study sample. After that, statistical data first concerning expatriate job performance and then expatriate adjustment will be presented.

Measurement Errors

Investigations aim to work with samples representative for a population in order to generalize observed results and to make use of them in practical contexts. The process of sample selection itself has the effect of selective exclusion resulting in a restricted sample (Cohen, Cohen, West, & Aiken, 2003). For example in the present study expatriates took part voluntarily. Hence expatriates who did not want to take part were excluded automatically although they could have delivered interesting data. Furthermore, in this study *current* expatriates were interviewed in order to find indications for the selection process in expatriate management. A sample of *potential* expatriates would have delivered a more exact sample in respect to the selection process because in the present

sample not everybody ran through a selection process. In accordance with Sacket, Lievens, Berry, and Landers (2007) the predictor will be corrected for range restriction in order to receive a representative sample with a typical Gaussian distribution with a mean and standard deviation equal to the German norm population. As a consequence the predictor is corrected as follows:

Figure 1. Correction for range restriction

$$\tilde{r}_{YX} = \frac{r_{YX_c}(sd_x/sd_{X_c})}{\sqrt{1 + r_{YX_c}^2 \left(\left(\frac{sd_x^2}{sd_{X_c}^2} \right) - 1 \right)}}$$

r estimated r
x variable x
y variable y
c restricted sample
r Pearson product moment correlation coefficient
sd standard deviation (Cohen et al., 2003, p. 58)

Furthermore one can expect the other-rated performance and adjustment ratings to have insufficient interrater reliabilities because other-ratings range from supervisors, colleagues to subordinates, though they are not homogeneous. Moreover, during the study the expatriate's adjustment and performance were rated by only one other person. As one person probably can not consider everything in the assessment a higher amount of other-raters for each expatriate would have revealed more extensive and detailed data. This is the reason why in statistical analyzes other-rated criterion are corrected for unreliability (Cohen et al., 2003) as follows. Self-ratings are not corrected for unreliability because they stem from a single source.

Figure 2. Correction for unreliability

$$r_{X_i, Y_i} = \frac{r_{XY}}{\sqrt{r_{XX}r_{YY}}}$$

r Pearson product moment correlation coefficient from the restricted sample
x variable x
y variable y (Cohen et al., 2003, p. 56)

Viswesvaran, Ones, and Schmidt (1996) revealed meta-analytically a mean interrater reliability of .52 between supervisory raters. As it is agreed with this value it is used during the correction for unreliability.

Within the analyses expatriate job performance and its dimensions will be considered only by other-ratings in order to receive more valid data. In the adjustment ratings both will be analyzed, self and other-ratings.

Null-Hypothesis Significance Testing

The results do not present statistical significance tests because it is agreed with the opinion that significance tests only provide information “whether the relationship exists at all” (Cohen et al., 2003, p. 5) but no size of the effect. Cohen (1994) suggests estimating effect sizes instead of using significance tests in order to reduce misinterpretations of the results. Thompson (2007) agrees with this by arguing that the greater a sample size the greater is the possibility to get significant correlations. Hence it will be considered the effect size in relation to surroundings of 95% confidence intervals and corresponding Pearson correlations (Bortz, 2005).

Sample Exclusions

As described in the demographic data the participants’ average age was 46.6 ranging from 26 to 73 which can be seen as quite old for expatriates. As a consequence for the analysis all participants older than 65 years were excluded in reference to German retirement age. Furthermore the sample includes a great part of expatriates who were originally sent to Costa Rica but then decided to stay there for a longer time than previously expected. That is the reason why this sample shows high average stay duration of 122 month. For receiving a sample representative for typical expatriates it was decided to exclude all participants who have already lived more than 180 months in the host country. As a result the sample size was reduced from 80 to 65 participants with a new average age of 43.1 years and an average stay duration of 71.1 months which seems to be better comparable with typical expatriates (GMAC, 2007). However, as Costa Rica is a quite small country the sample size of 65 participants can be viewed to be representative for German expatriates working in Costa Rica.

In the following section statistical results will be presented by correlations and confident intervals around them. Correlations of $r = .20$ will be judged as small ones, correlations of $r = .50$ as moderate ones and correlations of $r = .80$ as large ones.

Confident intervals including zero are not statistically significant. Confident intervals not including zero are marked in bold numbers in order to be recognized immediately.

Table 1. *Descriptive statistics of the variables included in the study*

Variable	<i>N</i> of Items	Cronbach's Alpha	<i>n</i>	<i>Mean</i>	<i>SD</i>
<i>Criteria Expatriate Job Performance</i>					
Overall job performance other-rating	17	.87	50	4.39	.41
Job specific task proficiency other-rating	3	.72	50	4.55	.52
Management and Administration other rating ¹	1		50	4.40	.67
Oral and written communication other rating ¹	1		50	4.30	.74
Supervision other-rating	3	.60	50	4.27	.52
Demonstrating effort other rating	4	.65	50	4.43	.53
Nonjob-specific task proficiency other-rating	3	.26	50	4.33	.47
Self-sufficiency other rating ¹	1		50	4.70	.46
Facilitating peer and team performance ¹	1		50	4.34	.75
<i>Criteria Expatriate Adjustment</i>					
Overall adjustment self-rating	4	.80	65	4.00	.65
Work adjustment self-rating ¹	1		65	3.89	.81
Interaction adjustment self-rating ¹	1		65	4.08	.80
General adjustment self-rating ¹	1		65	4.08	.85
Overall adjustment other-rating	4	.87	50	4.45	.59
Work adjustment other-rating ¹	1		50	4.48	.65
Interaction adjustment other-rating ¹	1		50	4.46	.71
General adjustment other-rating ¹	1		50	4.44	.70
<i>Predictors Extraversion</i>					
Overall Extraversion	48	.83	65	163.44	13.89
Warmth	8	.59	65	30.25	2.76
Gregariousness	8	.74	65	26.57	4.43
Assertiveness	8	.80	65	26.83	4.17
Activity	8	.68	65	27.65	3.54
Excitement Seeking	8	.51	65	22.18	4.10
Positive Emotions	8	.76	65	29.80	3.84

¹Reliability for single items cannot be given

Table 1 shows reliabilities of the predictor extraversion ranging from .51 to .83 which can be assessed to be acceptable referring to Amelang et al. (2006). Criteria reliability ranges from .60 up to .87. The job performance dimension nonjob-specific task proficiency reveals a rather low reliability of .26. As this dimension will not be analyzed individually it will not be considered in detail for this analysis. By comparing the extraversion means of the study sample with the norm sample presented by Ostendorf and Angleitner (2004) one can recognize that study mean is higher than the means of the norm sample in all six facets of extraversion. So the Gaussian distribution seems to be shifted to the right side indicating that German, Austrian and Swiss expatriates working in Costa Rica score higher on extraversion than non-expatriates.

4.1 Relationship between Expatriate Job Performance and Extraversion

Overall Expatriate Performance

Other-ratings of overall job performance are quite high with a mean of 4.39 on a 5-point Likert-scale and low standard deviation of .41 (table 3). Hypothesis 1 suggests a positive relation between overall expatriate job performance and the whole extraversion trait. Corresponding correlation $r = .44$ (see appendix C2) is assessed as moderate. As the confidence intervals include zero slightly (lower bound = .00 and upper bound .44) this relation seems to be interesting.

Supervision and Demonstrating Effort

Table 2. *Correlates of supervision ratings and demonstrating effort ratings*

	Other-ratings supervision ¹				Other-ratings demonstrating effort ¹			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Gregariousness ²	48	.34	-.15	.71				
Assertiveness ²	48	.46	-.01	.79	49	.18	-.32	.61
Activity ²	48	.26	-.23	.66	49	-.09	-.57	.43

¹Correlations are corrected for unreliability in the criterion

²Correlations are corrected for range restriction in the predictor

Uncorrected correlations for supervision can be found in appendix D1

Uncorrected correlations for supervision can be found in appendix E

Table 2 shows data of the performance dimension *supervision* hypothesized to relate to different facets of extraversion. Hypothesis 2 expects a positive relation between *gregariousness* and *supervision*. A moderate correlation of $r = .34$ was found with rather large confident interval including zero. Therefore hypothesis 2 seems not to be supported definitely. The relationship between *activity* and *supervision* (hypothesis 4a) show a small correlation of $r = .26$ with large confident intervals including zero. Hence there might be a small effect. Due to the confidence intervals there is still uncertainty about it as there is only a probability of 95% that the real value is within these bounds. *Assertiveness* and *supervision* (hypothesis 3a) show a moderate correlation of $r = .46$ while the confidence intervals surround zero only slightly. Therefore the positive effect expected in hypothesis 3a merits further elaboration.

The performance dimension *demonstrating effort* is examined in respect to extraversion facets *assertiveness* (hypothesis 3b) and *activity* (hypothesis 4b). Table 2 shows that none of these relations reveal meaningful values in present data as both

confidence intervals are quite large surrounding zero and correlations are quite small. Hence the hypothesized effects seem to be rather low.

4.2 Relationship between Expatriate Adjustment and Extraversion

Overall Expatriate Adjustment

In respect to overall adjustment table 1 shows that the mean of self-rated overall adjustment (4.00) is slightly lower than of the other-ratings (4.45). Both groups see the expatriates to be good adjusted to the host country. Hypothesis 5 predicts a positive correlation between overall adjustment and overall extraversion. In respect to self-ratings (see appendix F2) results indicate no meaningful effects due to small correlation of $r = -.05$ and large confidence interval including zero. Other rating results (see appendix F2) seem to be more interesting as the correlation is larger. Nevertheless it is still on a low level ($r = .21$) and confidence intervals include zero resulting in a rather small effect.

Expatriate Work Adjustment

Table 3. *Correlates of work adjustment ratings*

	Self-ratings				Other-ratings ¹			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Gregariousness ²	65	-.08	-.38	.25	50	-.53	-.96	.11
Assertiveness ²	65	.03	-.28	.33	50	-.23	-.69	.33
Activity ²	65	.22	-.08	.46	50	.14	-.35	.58
Warmth ²	65	.09	-.16	.32	50	.17	-.22	.52
Positive Emotions ²	65	.19	-.11	.44	50	.40	-.06	.74

¹Correlations are corrected for unreliability in the criterion

²Correlations are corrected for range restriction in the predictor

Uncorrected correlations can be found in appendix G

Hypothesis 6a assuming a positive relation between *work adjustment* and *gregariousness* reveals no evident effect in self-ratings due to a small correlation and large confidence intervals. Other-ratings show moderate negative correlation of $r = -.53$ with huge confidence intervals including zero. This contradicts the expected positive relationship in hypothesis 6a but seems to be interesting anyway because of the considerable correlation. Hypothesis 7a focusing on the negative relation between *assertiveness* and *expatriate work adjustment* can be shown partially by present data. Only other-ratings seem to reveal interesting effects with small correlation of $r = -.23$ in spite of large confidence intervals. Self ratings do not show any meaningful effects.

Correlations of *activity* and *work adjustment* (hypothesis 8a) seem to show only little effects as correlations are quite small. Self-ratings seem to be more meaningful than other-ratings due to better correlation and confidence intervals including zero only slightly. The facets *warmth* (hypothesis 9a) correlates only slightly with *work adjustment* and their confidence intervals include zero clearly. Hence this relation reveals rather small effects. *Positive emotions* in relation to *work adjustment* (hypothesis 10a) reveal meaningful values in the present study especially in other-ratings. It is found a moderate correlation of $r = .40$ and confidence intervals surrounding zero only slightly. Self-ratings seem not to show such evident effects.

Expatriate Interaction Adjustment

Table 4. *Correlates of interaction adjustment ratings*

	Self-ratings				Other-ratings ¹			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Gregariousness ²	65	-.15	-.44	.20	50	-.30	-.74	.28
Assertiveness ²	65	.04	-.28	.34	50	.23	-.26	.64
Activity ²	65	.30	.02	.52	50	.35	-.12	.71
Warmth ²	65	.16	-.09	.37	50	.31	-.07	.62
Positive Emotions ²	65	.05	-.26	.34	50	.65	.25	.90

¹Correlations are corrected for unreliability in the criterion

²Correlations are corrected for range restriction in the predictor

Uncorrected correlations can be found in appendix H

Hypothesis 6b expecting a positive relation between *gregariousness* and *interaction adjustment* reveal not convincing values (table 4). Both self and other ratings correlates reveal negative and correlations with small effects due to confidence intervals. Assumed negative relationships between *assertiveness* and *interaction adjustment* (hypothesis 7b) is not meaningful as correlations are positive and confidence intervals surround clearly zero. The extraversion facet *activity* seems to be partially correlated to *interaction adjustment*. Self ratings reveal evident effects by moderate correlation of $r = .30$ and confidence intervals not including zero. Other ratings also show a moderate correlation ($r = .35$). As these confidence intervals surround zero this effect seems not to be evident in present data. However due to the correlation values both relations merit further consideration. Hypothesis 9b expects a positive relationship between *warmth* and *interaction adjustment* which can be partially recognized in table 4. Both confident intervals are small and include zero only slightly. Due to correlations other ratings are more effectual. Hypothesis 10b expecting a positive relationship between *interaction*

adjustment and *positive emotions* shows partially meaningful effects. Other-ratings of the facet *positive emotions* reveal considerable correlation of .65 with confidence intervals out of zero. Self-ratings do not show any meaningful effects due to a small correlation and confidence intervals clearly surrounding zero.

Expatriate General Adjustment

Table 5. *Correlates of general adjustment ratings*

	Self-ratings				Other-ratings ¹			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Gregariousness ²	65	-.19	-.48	.17	50	-.41	-.82	.20
Assertiveness ²	65	-.12	-.42	.22	50	-.49	-.88	.14
Activity ²	65	.01	-.30	.31	50	.18	-.31	.60
Warmth ²	65	-.14	-.39	.15	50	.23	-.16	.56
Positive Emotions ²	65	-.06	-.37	.26	50	.53	.10	.83

¹Correlations are corrected for unreliability in the criterion

²Correlations are corrected for range restriction in the predictor

Uncorrected correlations can be found in appendix I

In hypothesis 6c a positive relationship between *general adjustment* and *gregariousness* is expected but can not correspond to statistical findings. There are small up to moderate negative correlations in both self and other ratings with confidence intervals including zero. In particular the correlation of other ratings seems to be interesting due to a considerable correlation although it is a negative one. *Assertiveness* is expected to be negatively related to *general adjustment* in hypothesis 7c which can be seen in present data. While self ratings seem to reveal only small effects due to the small correlation and intervals including zero other ratings appear considerable. A moderate and negative correlation ($r = -.49$) value reflects hypothesis 7c even though confidence intervals do not exclude zero. Effects of *activity* in relation to *general adjustment* (hypothesis 8c) do not show any relevant values as correlations are rather small and confidence intervals do clearly include zero. Results in *warmth* (hypothesis 9c) related to *general adjustment* reveal somewhat contradicting effects in self and other ratings. While self ratings show a small negative correlation other ratings related to *general adjustment* go in a slight positive direction. Confidence intervals do not clearly give support to the effects. In contrast to this, meaningful effect is revealed by other rated *positive emotions* linking to *general adjustment* (hypothesis 10c). Moderate correlation and confidence intervals clearly excluding zero seem to support hypothesized effects. This does not hold true for self-ratings resulting.

These results can support the assumption of a certain relation between some extraversion facets to expatriate job performance and to expatriate adjustment.

5. Discussion

In the next section each extraversion facet will be discussed individually beginning with results concerning expatriate job performance and following with expatriate adjustment. As the results show, considerable values in the correlations are found. At the same time confidence intervals are large and often include zero indicating that relations are not statistically significant. Reason for large confident intervals probably is the low sample size analyzed within the present study. Thompson (2007) argue that “effect size should be reported even for statistically nonsignificant effects” (Thompson, 2007, p. 429) as single primary studies rarely reveal such meaningful values like meta-analysis due to low sample sizes. Therefore in the following correlation values will be more focused than confidence intervals.

5.1 Discussion of Expatriate Job Performance Results

Overall Extraversion

The hypothesized positive relationship between overall extraversion and overall job performance can be seen as replicated by present data as a large correlation of $r = .44$ (see appendix C2) and confidence intervals almost excluding zero were found. Hence present findings show even a larger effect size than reported in the meta analysis by Mol et al. (2005) and correlations emerged by Hurtz and Donovan (2000) between extraversion and sales or managerial jobs.

As only other-rated overall performance was considered in the statistical analysis the sample size was reduced to 46, a rather small sample size. Due to this fact one can assume that this may be the reason why the findings are not statistically significant. Hence this study adds to the empirical knowledge indicating that extraversion is likely to play an important role in expatriate job performance in general. Next extraversion facets will be discussed in detail in order to see which of them account most for job performance.

Gregariousness

The expected positive link between *gregariousness* and *supervision* is partially meaningful. A moderate correlation value of $r = .34$ (table 2) supports the evidence of this relationship whereas the large confident interval including zero questions significant evidence. As aforementioned low sample size of 48 can once again be the reason for this.

Moreover, by analyzing the expatriate's functions it was revealed that only a quarter of the sample (25.8 %) stated to be executive while 47.0 % were managers and 27.3 % qualified personnel. This can explain why item 4 (see appendix B2: If the expatriate has subordinates that are directly reporting to him/her: How good is the expatriate in encouraging and developing subordinates?) focusing on expatriate's ability to develop subordinates often provoked questions during data collection. Other raters had problems in assessing this ability if the expatriate did not have any subordinates. The interviewer encouraged the participants to assess this ability even if subordinate development did not belong to their tasks. These personal estimates potentially distorted the supervision findings resulting in no statistical significances. Nevertheless the correlation of $r = .34$ (table 2) seems to support moderately the effect of *gregariousness* in the *supervision* dimension.

Assertiveness

In respect to the performance dimension *supervision* the study revealed a moderate correlation with *assertiveness* of $r = .46$ (table 2) and corresponding confidence interval of -.01 (lower bound) up to .79 (upper bound). Strictly speaking the hypothesis should be rejected as the 95% confident interval includes zero, although slightly. Once again, reduced sample size of 48 may be responsible for lack of statistical evidence. Milder 90% confident intervals reveal statistically significant results (see appendix D2) with correlation of $r = .45$ and corresponding confident interval between .06 (lower bound) up to .74 (upper bound). This supports Thompson's (2007) opinion that statistical significance depends mainly on the sample size. In addition to this the problematic item 4 (see appendix B2) is flown in the supervision analysis again. Therefore this item potentially distorted the personal also estimates. In conclusion these arguments can be responsible for a lack of statistical proof in the relationship between *assertiveness* and *supervision*. Hence findings presented by Furnham et al. (1997) of a correlation of $r = .49$ between *assertiveness* and drive to lead are likely to be replicated by the present analysis.

Thus it can be concluded that *assertiveness* has a moderate effect on the *supervision* dimension.

Furthermore *assertiveness* has no meaningful effects on the performance dimension *demonstrating effort* as only a small correlation of $r = .18$ (table 2) and large confident interval including zero were found. Typical *assertiveness* elements like dominance and energy do not seem to be characteristics responsible for *demonstrating effort*. Drive to achieve which was revealed to be correlated to *assertiveness* by Furnham et al. (1997) does not seem to account for the effort dimension.

Activity

Activity was suggested to be positively related to the performance dimension *supervision*. Small correlation of $r = .26$ (table 2) and large confident interval from $-.23$ up to $.66$ indicate a rather low effect. The correlation of $r = .43$ between *activity* and *supervision* including 160 participants revealed by Furnham et al. (1997) seem not be replicated clearly by the present data. Once again aforementioned reasons can hold true for the weak effect found in present data: The small sample size can be responsible for missing statistical significance and item 4 may have distorted estimates of expatriates without any executive functions. As the effect seems to be weak this relation should be investigated in further studies in order to emerge clearer results.

Moreover *activity* was expected to be positively related to the performance dimension *demonstrating effort*. A rather small correlation of $r = .09$ with a large confident interval from $-.57$ up to $.43$ including zero (table 2) do not show any meaningful effects for the *activity* facet in respect to *demonstrating effort*. Thus the relation between *activity* and effort suggested by Ones and Viswesvaran (1997) does not hold true for the present study.

5.2 Discussion of Expatriate Adjustment Results

Overall Extraversion

Overall extraversion is hypothesized to be positively related to overall expatriate adjustment. Only other ratings indicate a rather small effect with a correlation of $r = .21$ (see appendix F2) and confidence intervals including zero whereas self ratings do not indicate any meaningful effects. Nevertheless Bhaskar-Shrinivas et al (2005) also revealed only small correlations in respect to relational skills and extraversion. The same

holds true for the findings presented by Hechanova et al. (2003) who analyzed extraversion with frequent interaction. Therefore present results correspond tendentiously with other findings. Hence the whole extraversion trait can affect weakly overall expatriate adjustment.

The following relations will show a range of correlation values in positive and negative direction for extraversion facets and adjustment dimensions. This maybe supports the assumption presented by Dalton and Wilson (2000) that extraversion facets can outweigh to each other when the overall extraversion trait is considered.

Gregariousness

It was hypothesized that gregariousness is positively related to the expatriate's *work, interaction and general adjustment*.

Gregariousness correlates considerably in a negative direction ($r = -.53$) with other ratings in *work adjustment* (table 3). Self ratings do not show any meaningful effects. Also negative effects are found between *gregariousness* and *interaction adjustment*. Moderate correlations of $r = -.15$ in self ratings and $r = -.30$ in other ratings describe the relationship (table 4). The same effects hold true for the link between *gregariousness* and *general adjustment* with correlations of $r = -.19$ for self ratings and $r = -.41$ for other ratings (table 5). These results are rather surprising and contradict the expected effects in hypothesis 6a-c. Thus contrary to presented assumptions expatriates high on *gregariousness* do show a small degree in all three adjustment facets. The aspects of rewarding social situations (Lucas et al., 2000), frequent interactions with host nationals (Hechanova et al., 2003) and being sociable (Caligiuri, 2000) do not show any positive effect on adjustment in the present study. Hence further investigation regarding this relationship is recommended in order to emerge more clarity.

Assertiveness

In respect to *assertiveness* negative correlations with all three aspects of expatriate adjustment were expected. This effect can be proofed by the present study regarding other ratings in *work adjustment* ($r = -.23$) (table 3). In terms of self rated *general adjustment* a small correlation of $r = -.12$ and other rated *general adjustment* a larger correlation of $r = -.49$ were found (table 5). These results indicate the evidence of the hypothesis supporting the assumption of a contradiction between adjustment and assertiveness characteristics (Costa & McCrae, 1992). This means assertive expatriates seem to be less adjusted in

general and in particular in working context. Furthermore by building the sum of all facets assertiveness can outweigh other extraversion facets (due to the negative correlations) in working and general contexts in accordance to Dalton and Wilson (2003). For *interaction adjustment* small positive correlations were found in both, self ratings ($r = .04$) and other ratings ($r = .23$), contradicting the expectations (table 4). These results show that assertiveness characteristics like dominance, leading and self-assertion rather seem to support interaction adjustment instead of reducing it. None of all these findings are statically significant due to a small sample size.

Activity

Activity was suggested to reveal positive correlations with all three aspects of expatriate adjustment. In the current study *activity* seems to affect *work adjustment* only weakly in a positive direction (table 3). Regarding *general adjustment* *activity* seems to have rather low effects (table 5). Greatest effects are emerged by *activity* in respect to *interaction adjustment* (table 4). While self ratings reveal statistically significant results with a moderate correlation of $r = .30$ other ratings are not statistically significant but show a higher correlation ($r = .35$). This effect corresponds well to Hechanova et al. (2003): they found interaction with host nationals correlating on a low level with *general* and *work adjustment*. Between interaction with host nationals and *activity* they recognized a large correlation. Hence meta-analytic results presented by Hechanova et al. (2003) regarding *activity* are well reflected in the present study. Therefore their evidence seems to be proofed by current finding: *Activity* has small effects on *general* and *work adjustment* and large ones on *interaction adjustment*.

Warmth

Warmth is also analysed in relation to *work*, *interaction* and *general adjustment*. It reveals rather small positive effects on *work adjustment* (table 3). Other rated *general adjustment* correlates with a value of $r = .17$ while self rated *general adjustment* shows a small negative correlation with warmth ($r = -.14$) (table 5). Hence it remains questionable whether *warmth* has meaningful effects on *general adjustment* due to the huge range of correlations. In comparison to this self and other-rated *interaction adjustment* shows a more important link to *warmth* due to higher correlations and confidence intervals slightly including zero (table 4). Thus large correlations between interpersonal sensitivity and social adaptability presented by Furnham et al. (1997) can be replicated tendentially

by present data. Sullivan and Hansen (2004) indicated *warmth* to be responsible for the link between social interest and extraversion. Present findings correspond to these results because *warmth* affects *interaction adjustment* most. Therefore it can be concluded that the facet *warmth* is important in interacting with others.

Positive Emotions

The facet *positive emotions* is examined in order to emerge positive relationships to all three adjustment dimensions. The relation between *positive emotions* and *work adjustment* do not show statistical significance but seem to be interesting anyway because a meaningful correlation of $r = .40$ in respect to other ratings was found (table 3). Furthermore confidence interval includes zero only slightly. Thus *positive emotions* have a moderate effect on *work adjustment*. Other ratings in *interaction* and *general adjustment* show significant results with considerable correlations of $r = .65$ for *interaction* (table4) and $r = .53$ for *general adjustment* (table 5). Self ratings of both dimensions do not have meaningful effects.

The facet *positive emotions* which was found to be responsible for a person's optimism (Furnham et al., 1997) seems to play the most important role of the extraversion trait in expatriate adjustment. Emotional mood maintenance in the character of extraverts (Lischetzke & Eid, 2006) can account largely for the relationship between positive emotions and adjustment. It seems to be interesting that especially other-ratings built significant correlations with *positive emotions*. The more an expatriate viewed him/herself to be positive the better other-raters assessed the expatriate's adjustment. One possible explanation could give the phenomenon of self-fulfilling prophecy. This phenomenon says that a prediction about future behaviors or events changes interactions and expectations come true (Zimbardo & Gerrig, 2004). Hence optimistic aspects in extraverted expatriates may be responsible for building positive expectations in respect to assignments abroad. Consequently this optimism can have positive effects on the expatriate's adjustment.

5.3 Limitations

Some important aspects limiting the present study and its results are motioned during the following section. For example the adjustment scale only consisted of four items resulting in one item per adjustment dimension. A greater amount of items per

adjustment dimension would have revealed probably more valid and exact results due of better reliability (Amelang et al., 2006). Furthermore, the criterion's sensitivity to culture can have distortion effects in respect to its reliability because the expatriate's performance and adjustment is rated by people of different nationalities.

Moreover, organizational contexts and the expatriate's function can have distortion effects on performance ratings. For example in the present study 32.2% of the analyzed sample did not have any typical expatriate contract but were self-employed which makes a rather great difference regarding working conditions.

Expatriate adjustment often is considered to form a real process with different states over several years following a u-curve starting with honeymoon, culture shock, adjustment, and finally master stages (McEvoy & Parker, 1997; Aycan 1997). The expatriate's actual stage of adjustment can have affected the ratings.

In addition to this the predictor extraversion is only measured by self-ratings which can be different from possible other-ratings. By comparing peer and self-ratings extraversion was found to show only little systematic self/peer difference in a domestic context as it is a rather observable trait (Beer & Watson, 2008). Amelang et al (2006, p. 167) expect extraversion to be good recognized and therefore suitable to be assessed by others. As there seem to be still discussions about this phenomenon further elaboration of self and other-ratings in respect to extraversion is recommended, also in host context.

Finally, there is a limitation concerning generalizability of the findings. As this study concentrates only on German, Austrian and Swiss expatriates working in Costa Rica the results will not be transferable to each nationality due to distinct cultural backgrounds. Furthermore Costa Rica does not automatically stand for the whole Latin America cluster as even between these countries are cultural differences (Gupta & Hanges, 2004). Within an examination of the fit between regional clusters and corresponding countries Costa Rica was not classified as predicted but "having a greater likelihood of being classified into the Latin Europe cluster than to the originally hypothesized Latin America cluster" (Gupta & Hanges, 2004,p. 191). In order to generalize these findings they should be analyzed with findings of other countries of the cluster.

5.4 Outlook

The field of expatriate management gives many possibilities for future research. Some ideas will be presented in the following section. As increasing numbers of expatriates are expected (GMAC, 2007) future study in this area generally should be supported.

One interesting aspect in respect in expatriate management can be compound traits. Mount, Barrick, Scullen and Rounds (2005, p. 473) suggest compound traits to “predict motivational and performance outcomes better than either attribute measured separately” in a domestic context. Hence it would be interesting to emerge compound traits meaningful for expatriate selection by proofing their relevance in a host country.

Extraversion was found to predict success in specific occupations and criteria in a domestic context like teamwork, training proficiency, managerial performance and police officer performance (Barrick, Mount, and Judge, 2001) as well as in occupations involving social interaction like managers and sales (Barrick & Mount, 1991). Sullivan et al. (2004) found assertiveness accounting largely for the relation between enterprising interest and extraversion in a sample of students. Furthermore they emerged warmth to be responsible for social interest in medical service, counseling/social service and religious activities. Leslie, Dalton, Ernst, and Deal (2002) found extraversion related to spokespersons, leader, decision maker, innovator and liaison builder in global context. Therefore it seems to be interesting to investigate the relationship between extraversion and different jobs in expatriate context by considering the extraversion facets in depth.

In addition to this longitudinal studies can give more clarity about the process of expatriate adjustment and performance. In this case comparisons over time would be possible in order to derive causal effects.

5.5 Conclusion

Current study aimed to emerge relevant contributions for efficient expatriate management by investigating the personality trait extraversion in respect to expatriate success. For this study purpose investigations for expatriate adjustment and expatriate performance have been realized.

Present study results proof that the extraversion trait plays an important role in the prediction of expatriate job performance. Overall extraversion, *assertiveness*,

gregariousness and *activity* are useful in expatriate selection in order to indicate job performance abroad.

Moreover extraversion is important in predicting expatriate adjustment. The facets *activity*, *warmth* and especially *positive emotions* reveal the greatest effects. Thus they should be considered in expatriate selection to predict adjustment in a foreign country.

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IV Appendices

Appendix A1. Self-rating measure of expatriate adjustment

16.1. Verglichen mit dem Durchschnitt der in Costa Rica arbeitenden Deutschen, die Sie kennen:

Wie gut haben Sie sich an die Arbeitsabläufe in Costa Rica angepasst?

1	2	3	4	5
sehr gut	besser als durchschnittlich	durchschnittlich	schlechter als durchschnittlich	sehr schlecht

16.2. Verglichen mit dem Durchschnitt der in Costa Rica lebenden Deutschen, die Sie kennen:

Wie sicher sind Sie im Umgang mit Costaricanern?

1	2	3	4	5
sehr sicher	sicherer als durchschnittlich	durchschnittlich	weniger sicher als durchschnittlich	sehr unsicher

16.3. Verglichen mit dem Durchschnitt der in Costa Rica lebenden Deutschen, die Sie kennen:

Wie gut haben Sie sich auf das Leben außerhalb der Arbeit (Essen, Verkehr, Gesundheitsvorsorge, etc.) in Costa Rica persönlich eingestellt?

1	2	3	4	5
sehr gut	besser als durchschnittlich	durchschnittlich	schlechter als durchschnittlich	sehr schlecht

16.4. Verglichen mit dem Durchschnitt der in Costa Rica lebenden Deutschen, die Sie kennen:

Wie gut haben Sie sich insgesamt auf das Leben in Costa Rica persönlich eingestellt?

1	2	3	4	5
sehr gut	besser als durchschnittlich	durchschnittlich	schlechter als durchschnittlich	sehr schlecht

Appendix A2. Other-rating measure of expatriate adjustment

18. Verglichen mit dem Durchschnitt der in Costa Rica arbeitenden Deutschen, die Sie kennen:

Wie gut hat sich der Expatriate an die Arbeitsabläufe in Costa Rica angepasst?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

19. Verglichen mit dem Durchschnitt der in Costa Rica lebenden Deutschen, die Sie kennen:

Wie sicher ist der Expatriate im Umgang mit Costaricanern?

1	2	3	4	5
Sehr sicher		Durchschnittlich		Sehr unsicher

20. Verglichen mit dem Durchschnitt der in Costa Rica lebenden Deutschen, die Sie kennen:

Wie gut hat sich der Expatriate auf das Leben außerhalb der Arbeit (Essen, Verkehr, Gesundheitsvorsorge, etc.) in Costa Rica persönlich eingestellt?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

21. Verglichen mit dem Durchschnitt der in Costa Rica lebenden Deutschen, die Sie kennen:

Wie gut hat sich der Expatriate insgesamt auf das Leben in Costa Rica persönlich eingestellt?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

Appendix A3. Other-rating measure of expatriate adjustment, English version

**18. Compared to the average German working in Costa Rica that you know:
How well did the expatriate adjust to working in Costa Rica?**

1	2	3	4	5
Very well		Average		Very badly

19. Compared to the average German working in Costa Rica that you know, how confident is the expatriate when interacting with Costa Ricans?

1	2	3	4	5
Very confident		Average		Very unconfident

20. Compared to the average German working in Costa Rica that you know, how well did the expatriate adjust to life outside of work in Costa Rica (food, traffic, health, etc.)?

1	2	3	4	5
Very well		Average		Very badly

21. Compared to the average German working in Costa Rica that you know, how well did the expatriate personally adjust to living in Costa Rica overall?

1	2	3	4	5
Very well		Average		Very badly

Appendix B1. Other-rating measure of expatriate job performance

1. Wie würden Sie die Leistung des Expatriates bezüglich seiner täglichen Verantwortung, seiner Aufgaben und seiner Verpflichtungen im Vergleich zu einem durchschnittlichen, in Costa Rica lebenden, deutschen Kollegen einschätzen?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

2. Wie beurteilen Sie die Arbeitsleistung des Expatriates bezogen auf den fachlichen Teil seiner zentralen Aufgaben?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

3. Wie professionell ist die Zusammenarbeit des Expatriates mit den verschiedenen Gruppen innerhalb Ihrer Organisation (Entsendungsfirma, lokale Organisation, andere Expatriates)?

1	2	3	4	5
Immer professionell		Arbeitet zufrieden stellend mit den meisten der verschiedenen Gruppen		Immer Unprofessionell

4. Wenn der Expatriate Mitarbeiter hat, die direkt an ihn/sie berichten: Wie gut ist der Expatriate darin, Mitarbeiter zu entwickeln und zu fördern?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

5. Wie gut ist der Expatriate darin, schriftliche und mündliche Informationen zu sammeln und weiterzuleiten?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

6. Wie gut ist der Expatriate darin, andere zu überzeugen?

1	2	3	4	5
Überzeugt andere immer von den eigenen Ideen oder Zielen, wenn eine Entscheidung ansteht		Überzeugt andere durchschnittlich oft von den eigenen Ideen oder Zielen, wenn eine Entscheidung ansteht		Überzeugt andere nie von den eigenen Ideen oder Zielen, wenn eine Entscheidung ansteht

7. Wie gut ist der Expatriate darin, Ziele für den eigenen Verantwortungsbereich zu setzen?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

8. Wie stark fühlt sich der Expatriate seinem derzeitigen Job verbunden?

1	2	3	4	5
Sehr stark verbunden		Durchschnittlich verbunden		Gar nicht verbunden

9. Wie groß ist das Durchhaltevermögen des Expatriates unter widrigen Bedingungen?

1	2	3	4	5
Sehr gut		Durchschnittlich		Sehr schlecht

10. Hat der Expatriate ein Verständnis von den langfristigen Zielen der Organisation?

1	2	3	4	5
Hat ein sehr ausgeprägtes Verständnis der Organisationsziele		Hat ein durchschnittliches Verständnis der Organisationsziele		Hat ein sehr geringes Verständnis der Organisationsziele

11. In welchem Ausmaß übernimmt der Expatriate Verantwortung für Aufgaben, die über seinen Tätigkeitsbereich hinausgehen?

1	2	3	4	5
Ist immer bereit, Aufgaben zu übernehmen, die über seinen eigentlichen Tätigkeitsbereich hinausgehen		Ist durchschnittlich oft bereit, Aufgaben zu übernehmen, die über seinen eigentlichen Tätigkeitsbereich hinausgehen		Ist nie bereit, Aufgaben zu übernehmen, die über seinen eigentlichen Tätigkeitsbereich hinausgehen

12. Wie beständig ist die Arbeitsleistung des Expatriates?

1	2	3	4	5
Seine Arbeitsleistung ist sehr beständig		Hat gute und schlechte Tage		Seine Arbeitsleistung ist sehr unbeständig

13. Wie würden Sie das Fachwissen des Expatriates beurteilen?

1	2	3	4	5
Hat ein sehr tiefgehendes und sehr aktuelles Wissen über Dinge, die mit seiner Tätigkeit zu tun haben		Hat ein durchschnittliches und relativ aktuelles Wissen über Dinge, die mit seiner Tätigkeit zu tun haben		Hat ein sehr geringes und wenig aktuelles Wissen über Dinge, die mit seiner Tätigkeit zu tun haben

14. Wie würden Sie das kulturbezogene Wissen des Expatriates beurteilen, das zur Ausübung seiner Arbeit wichtig ist?

1	2	3	4	5
Weiß alles über die costaricanische Kultur, was man wissen muss, um in diesem Land zu arbeiten		Hat ein durchschnittliches Wissen über die costaricanische Kultur, das man braucht, um in diesem Land zu arbeiten		Weiß nichts über die costaricanische Kultur, von dem was man wissen muss, um in diesem Land zu arbeiten

15. Wie eigenständig arbeitet der Expatriate?

1	2	3	4	5
Braucht keine Anleitung um gut zu arbeiten		Arbeitet normalerweise besser, wenn eine Anleitung gegeben wird		Braucht intensive Anleitung um gut zu arbeiten

16. Wie pünktlich ist der Expatriate bei der Erledigung von Aufgaben?

1	2	3	4	5
Schließt Aufgaben immer pünktlich ab		Schließt Aufgaben durchschnittlich pünktlich ab		Schließt Aufgaben nie pünktlich ab

17. In welchem Maß fördert der Expatriate Teamarbeit in seinem Arbeitsumfeld?

1	2	3	4	5
In hohem Maße		In durchschnittlichem Maße		Fördert keine Teamarbeit

Appendix B2. Other-rating measure of expatriate performance, English version

1. How would you rate the expatriate's performance in terms of his/her daily responsibilities, tasks and obligations in comparison to an average German colleague living in Costa Rica?

1	2	3	4	5
Very good		Average		Very bad

2. How well does the expatriate perform the technical tasks that are part of his/her core duties?

1	2	3	4	5
Very well		Average		Very badly

3. How professional is the expatriate in working with all the different groups (home office, local subsidiary, other expatriates)?

1	2	3	4	5
Always professional		Works on an average level with most of the different groups		Always unprofessional

4. If the expatriate has subordinates that are directly reporting to him/her: How good is the expatriate in encouraging and developing subordinates?

1	2	3	4	5
Very good		Average		Very bad

5. How much competence does the expatriate have in gathering and transmitting information (oral and written)?

1	2	3	4	5
Is very competent in gathering and transmitting both oral and written information		Is competent on an average level in gathering and transmitting both oral and written information		Is not competent in gathering and transmitting both oral and written information

6. How successful is the expatriate in persuading others?

1	2	3	4	5
Persuades others of his own ideas and goals every time when a decision is pending		Persuades others of his own ideas and goals on an average level when a decision is pending		Never persuades others of his own ideas and goals when a decision is pending

7. How proficient is the expatriate in setting goals for his/her own area of responsibility?

1	2	3	4	5
Very proficient		Average		Not proficient

8. How much is the expatriate dedicated to his current job?

1	2	3	4	5
Very dedicated		Dedicated on an average level		Not dedicated

9. How persistent is the expatriate under adverse conditions?

1	2	3	4	5
Very persistent		Persistent on an average level		Not persistent

10. Does the expatriate have an understanding of the long-term organizational goals?

1	2	3	4	5
The expatriate has a very profound understanding of the organization's goals		The expatriate has an average understanding of the organization's goals		The expatriate has a very low understanding of the organization's goals

11. To what extent does the expatriate engage in tasks that are additional to his/her normal job activities?

1	2	3	4	5
The expatriate is always willing to engage in tasks additional to his/her normal activities		The expatriate is sometimes willing to engage in tasks additional to his/her normal activities		The expatriate is never willing to engage in tasks additional to his/her normal activities

12. How consistent is the expatriate's performance?

1	2	3	4	5
The expatriate works very consistently		The expatriate has some good and some bad days		The expatriate works very inconsistently

13. How would you rate the job-related knowledge of the expatriate?

1	2	3	4	5
The expatriate has a very profound and very up-to-date knowledge of things related to his job		The expatriate has an average and relatively up-to-date knowledge of things related to his job		The expatriate has a little and not very up-to-date knowledge of things related to his job

14. How would you rate the culture-related knowledge of the expatriate that is important to carry out his/her job?

1	2	3	4	5
Knows everything about Costa Rica culture one needs to know to work in this country		Has average knowledge about Costa Rica culture one needs to know to work in this country		Knows nothing about Costa Rica culture one needs to know to work in this country

15. How self-sufficient is the expatriate?

1	2	3	4	5
The expatriate doesn't need guidance to work well		The expatriate usually performs better, when some guidance is provided		The expatriate needs intensive guidance to work well

16. How punctual is the expatriate in completing tasks?

1	2	3	4	5
Completes tasks always in time		Completes tasks sometimes in time		Completes tasks never in time

17. To which degree does the expatriate facilitate team performance?

1	2	3	4	5
To a high degree		To an average degree		To no degree

Appendix C1. Uncorrected correlate of Overall Job Performance Rating

Appendix C1. *Uncorrected correlate of overall job performance rating*

	Other-ratings			
			95% CI	
	<i>n</i>	<i>r</i>	lower	upper
Overall Extraversion	46	.23	-.05	.45

Appendix C2. Corrected correlate of Overall Job Performance Rating

Appendix C2. Corrected correlate of overall job performance rating

	Other-ratings ¹			
			95% CI	
	<i>n</i>	<i>r</i>	lower	upper
Overall Extraversion ²	46	.44	.00	.76

¹Correlation is corrected for unreliability in the criterion

²Correlation is corrected for range restriction in the predictor

Uncorrected correlations can be found in appendix C1

Appendix D1. Uncorrected correlates of Supervision Ratings

Appendix D1. *Uncorrected correlates of supervision ratings*

	Other-ratings			
	N	r	95% CI	
			lower	upper
Gregariousness	48	.15	-.13	.39
Assertiveness	48	.21	-.07	.43
Activity	48	.12	-.16	.37

Appendix D2. Corrected correlates of Supervision Rating with Assertiveness

Appendix D2. *Corrected correlates of supervision rating with assertiveness*

	Other-ratings ¹			
			90% CI	
	<i>n</i>	<i>r</i>	lower	upper
Assertiveness ²	48	.45	.06	.74

¹Correlations are corrected for unreliability in the criterion

²Correlations are corrected for range restriction in the predictor

Uncorrected correlation can be found in appendix D1

Appendix E. Uncorrected correlates of Demonstrating Effort Ratings

Appendix E. *Uncorrected correlates of demonstrating effort ratings*

	Other-ratings			
	n	r	95% CI	
			lower	upper
Assertiveness	49	.08	-.21	.34
Activity	49	-.04	-.32	.25

Appendix F1. Uncorrected correlate of Overall Adjustment Ratings

Appendix F1. *Uncorrected correlate of overall adjustment rating*

	Self-rating				Other-rating			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Overall Extraversion	65	-.05	-.29	.21	50	.11	-.17	.36

Appendix F2. Corrected correlate of Overall Adjustment Ratings

Appendix F2. Corrected correlate of overall adjustment rating

	Self-rating				Other-rating ¹			
	<i>N</i>	<i>r</i>	95% CI		<i>N</i>	<i>r</i>	95% CI	
lower			upper	lower			upper	
Overall Extraversion ²	65	-.05	-.34	.25	50	.21	-.24	.06

¹Correlation is corrected for unreliability in the criterion

²Correlation is corrected for range restriction in the predictor

Uncorrected correlation can be found in appendix F1

Appendix G. Uncorrected correlates of Work Adjustment Ratings

Appendix G. *Uncorrected correlates of work adjustment ratings*

	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Greagariousness	65	-.06	-.31	.20	50	-.24	-.50	.11
Assertiveness	65	.02	-.22	.26	50	-.10	-.38	.21
Activity	65	.18	-.06	.38	50	.07	-.21	.33
Warmth	65	.08	-.16	.31	50	.11	-.16	.36
Positive Emotions	65	.15	-.09	.36	50	.18	-.09	.41

Appendix H. Uncorrected correlates of Interaction Adjustment Ratings

Appendix H. *Uncorrected correlates of interaction adjustment ratings*

	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Gregariousness	65	-.11	-.36	.16	50	-.14	-.41	.18
Assertiveness	65	.03	-.22	.27	50	.10	-.17	.35
Activity	65	.24	.01	.43	50	.16	-.11	.40
Warmth	65	.16	-.08	.36	50	.21	-.06	.43
Positive Emotions	65	.04	-.20	.28	50	.31	.06	.50

Appendix I. Uncorrected correlates of General Adjustment Ratings

Appendix I. *Uncorrected correlates of general adjustment ratings*

	Self-ratings				Other-ratings			
	<i>n</i>	<i>r</i>	95% CI		<i>n</i>	<i>r</i>	95% CI	
			lower	upper			lower	upper
Gregariousness	65	-.15	-.39	.13	50	-.18	-.45	.15
Assertiveness	65	-.10	-.34	.17	50	-.22	-.49	.12
Activity	65	.01	-.24	.25	50	.08	-.20	.34
Warmth	65	-.14	-.38	.14	50	.16	-.11	.40
Positive Emotions	65	-.05	-.29	.21	50	.25	-.01	.46