IUL School of Social Sciences and Humanities
Department of Social and Organizational Psychology

Cross-Cultural Adaptation as an Intergroup Phenomenon
Antecedents, Processes and Manifestations

Kinga Maria Bierwiaczonek

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Jury:
Dr. Katja Hanke, Senior Researcher, GESIS – Leibniz Institute for Social Sciences
Dr. Rui Costa Lopes, Investigador Auxiliar, Instituto de Ciências Sociais
Dr. Christin-Melanie Vauclair, Investigadora Integrada, ISCTE – University Institute of Lisbon

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Kinga Maria Bierwiaczonek
geboren te Katowice, Polen

promotoren: prof.dr. K.I. van Oudenhoven-van der Zee

prof.dr. S. Waldzus

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Abstract

This thesis bridges two scientific fields: cross-cultural adaptation and intergroup relations, by examining the role of intergroup factors as antecedents, moderators and manifestations of cross-cultural adaptation. In the first step, the current state of the art was investigated to identify those intergroup factors that are the most relevant to adaptation and those that are understudied. Chapter 2 reports a systematic review of literature covering 217 quantitative studies including social-contextual antecedents of cross-cultural adaptation. Chapter 3 reports a study consisting of 119 different meta-analyses of 213 primary studies showing high relevance of intergroup factors such as perceived discrimination or intergroup contact. In the second step, several studies with adapting populations were conducted to better understand the connections between cross-cultural adaptation and intergroup factors. Chapter 4 reports an online survey of 220 international students suggesting that the role of social identification in the adaptation process is ambivalent and depends on whether the reference group is associated with the culture of origin or not. Chapter 5 reports a set of three studies demonstrating that adaptation is reflected at the level of social cognition, that is, in the valence of representations of the host national outgroup held by newcomers. In Chapter 6, I discuss the main insights from this work and their implications. Overall, this thesis shows that the links between intergroup factors and adaptation are consistent and often strong, which suggests that by supporting immigrant and sojourner adaptation, one contributes to building harmonious intergroup relations in today's multicultural societies.

Keywords: cross-cultural adaptation, intergroup relations, sojourners, migrants

Resumo

A presente dissertação interliga duas áreas de pesquisa: adaptação intercultural e relações intergrupais, examinando o papel dos fatores intergrupais enquanto antecedentes, moderadores e manifestações de adaptação intercultural. Primeiramente, o estado de arte foi investigado para identificar os fatores intergrupais mais relevantes para a adaptação, tal como os fatores omitidos. O Capítulo 2 relata uma revisão sistemática da literatura incluindo 217 estudos quantitativos sobre adaptação intercultural com antecedentes socio-contextuais de adaptação intercultural. O Capitulo 3 relata um estudo com 119 meta-análises diferentes de 213 estudos primários, demonstrando a alta relevância de fatores intergrupais tais como discriminação percebida ou contato intergrupal. Seguidamente, conduziram-se estudos com populações em adaptação para compreender as associações entre adaptação intercultural e fatores intergrupais. O Capítulo 4 relata um estudo online de 220 estudantes internacionais que sugere que o papel da identificação social no processo de adaptação é ambivalente, dependendo se o grupo de referência está ou não associado com a cultura de origem. O Capítulo 5 relata três estudos demonstrando que o grau de adaptação é refletido ao nível da cognição social, isto é, na valência das representações do exogrupo nacional maioritário. No Capítulo 6, as principais conclusões deste trabalho, tal como as suas implicações, são discutidas. Em geral, esta dissertação demostra que as associações entre os fatores intergrupais e a adaptação são consistentes e muitas vezes fortes, sugerindo que ao apoiar a adaptação dos imigrantes e *sojourners*, pode-se contribuir para a harmonia das relações intergrupais nas sociedades multiculturais de hoje.

Palavras-chave: adaptação intercultural, relações intergrupais, *sojourners*, migrantes

Chapter 1.

General Introduction

In 2001, in their preface to the book “The Psychology of Culture Shock” Ward, Bochner and Furnham referred to an unprecedented growth of international mobility of people across the world. Since then, the number of international migrants, broadly defined as people living in a country different from their country of birth, has only continued to grow: from 173 million worldwide in 2000 to an impressive 258 million in 2017 (United Nations, 2017). Successful inclusion of migrants contributes to economic growth and development in both home and host countries. For instance, it is estimated that only in 2016 migrants from developing countries sent home US $413 billion in remittances, improving the livelihoods of families and communities in their home countries. As to the host countries, migrants contribute to their economies by filling critical labor gaps, creating jobs as entrepreneurs, and paying taxes and social security contributions. They slow down the ageing of Western societies and improve the sustainability of social security systems (United Nations, 2017). It goes without saying that they also enrich their host communities by bringing cultural diversity.

However, this is only one side of the coin. As much as the successful inclusion of migrants brings considerable benefits for all stakeholders, failed inclusion is associated with nonnegligible risks. On the host national majority side, overt manifestations of anti-immigrant prejudice have increased in the last years (Wieviorka, 2018) opening the way to the rise to power of right-wing political movements and the establishment of anti-immigration policies in many countries of the Western world, including Poland, Hungary, and even the country built by immigrants – the US, just to name a few. On the immigrant minority side, discontent with the life in the host country has shown to be just as dangerous; for example, it has been linked to radicalization phenomena with their tragic consequences (see Hafez & Mullins, 2015).

It is in the best interest of all to support migrant inclusion in the host societies, and research has established that a large part of it goes through good cross-cultural adaptation. Well-adapted migrants and sojourners have better educational achievement (e.g., Gong & Fan, 2006; Leung, 2001a, b), better work outcomes (e.g., van der Zee & Sandal, 2017; Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Hechanova, Beehr, & Christiansen, 2003; Aycan & Berry, 1996), better capacity to fit in into the host culture (Masgoret & Ward, 2005) and are overall more satisfied with their lives in the host country (Ward, Bochner & Furnham, 2001). In other words, if the unprecedented amounts of international mobility that modern societies are faced with are to bring benefits rather than escalation of societal tensions, understanding cross-cultural adaptation is a matter of highest urgency.

Although the field of cross-cultural psychology seems aware of that, we are still far from capturing and describing some of the very basics of adaptation, that is, its intergroup underpinnings. It is the contact between people who represent and identify with two different cultures that triggers the entire adaptation process (Berry, 1997, 2005). That is, the context of adaptation is inherently an intergroup context and the relevance of intergroup phenomena for its outcomes seems obvious. Surprisingly though, the adaptation literature does not go especially deep into this topic. Probably the only intergroup aspect that has so far received the well-merited attention from research are shifts in social (cultural) identity that have been extensively studied as antecedents of adaptation outcomes such as well-being or social functioning (Berry, 1997, 2005; Sam & Berry, 2010; Ward & Geeraert, 2016). This focus, however, is not really about intergroup relations and does not seem to exhaust the subject; a systematic analysis of the role of other intergroup factors is still missing. The present thesis aims at addressing this gap. Relying on Ward and colleagues' (Searle & Ward, 1990; Ward, Bochner & Furnham, 2001; Masgoret &

Ward, 2006) model of cross-cultural adaptation as the main theoretical reference, this thesis attempts to clarify the role of intergroup factors in cross-cultural adaptation.

Theoretical Framework

Acculturation and adaptation models

The notion of cross-cultural adaptation pertains to the broader theoretical framework of acculturation (Berry, 1997, 2005; Sam & Berry, 2010; Ward & Geeraert, 2016). In a broad sense, acculturation is defined as "the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members" (Berry, 2005, p. 698). Psychological acculturation, in turn, refers to "changes in an individual who is a participant in a culture contact situation, being influenced both directly by the external culture, and by the changing culture of which the individual is a member" (Berry, 2005, p. 701). These changes, including behavioral shifts and acculturative stress, lead to adaptation, which is seen as a state (i.e., outcome) rather than a process. Figure 1 summarizes Berry's acculturation framework.

Berry's (1997, 2005) framework includes two dimensions of cross-cultural adaptation as outcomes of the acculturation process: psychological and socio-cultural. The ABC model of culture contact (Ward et al., 2001; see Figure 2) conceptualizes these two dimensions in greater detail. Its main assumption is that people respond to intercultural contact at three levels: affect (A), behavior (B) and cognition (C). Affect refers to psychological adaptation that is acquired in a stress and coping process (i.e., dealing with the stressful elements of an intercultural transition) and manifested as feelings of well-being and satisfaction when residing in the host culture.

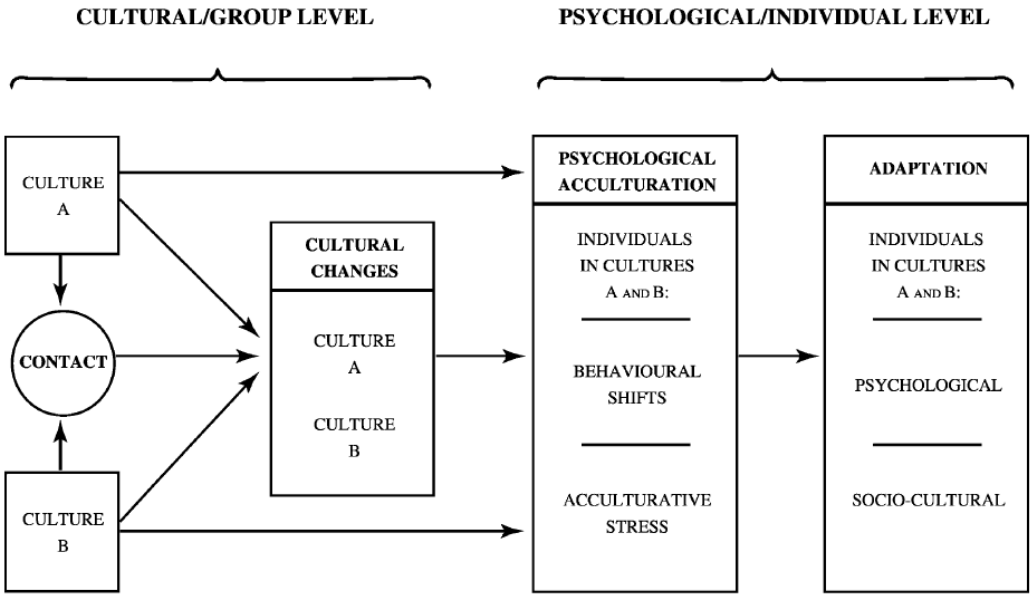

Figure 1. A general framework for understanding acculturation.

Source: Berry (2005).

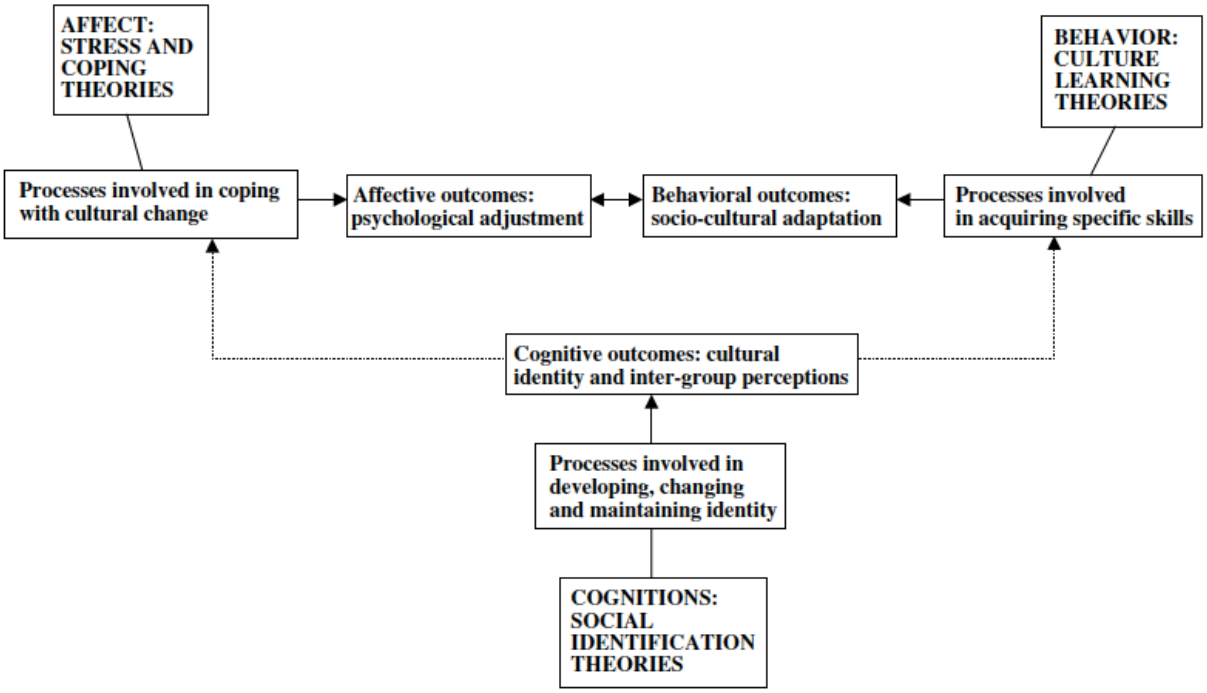

Figure 2. The ABC model of culture contact

Source: Ward, Bochner & Furnham (2001)

Behavior refers to socio-cultural adaptation that is acquired in a culture-learning process (i.e., learning culture-specific behavioral skills) and manifested as being able to 'fit in' into the new culture. Cognition, in turn, is presented as referring mostly to cultural identity and to processes of its acquisition, change and/or maintenance. Whereas Ward and colleagues (2001) include intergroup perceptions under the label of cognitive outcomes, these are not discussed in much detail (cf. van der Zee & van Oudenhoven, 2013).

Insights from intergroup relations models

It is because of the acknowledgement of the relevance of social categorization and intergroup perceptions that the cognitive component of the ABC model may serve as a bridge between the concept of cross-cultural adaptation and models of intergroup relations. According to social identity theory (Tajfel & Turner, 1986) and self-categorization theory (Turner et al., 1987), broadly defined intergroup phenomena such as mutual perceptions, stereotypes and attitudes are built on social categorizations into ingroups and outgroups. Social categorization is imminent in intercultural contact which is all about 'my culture' versus 'their culture'. This implies that intergroup phenomena (cf. Tajfel & Turner, 1986), are imminent as well.

It is not surprising, therefore, that social psychology offers a great deal of theorizing on intergroup phenomena that seem highly relevant for adaptation. These include intergroup tensions such as perceived discrimination (Branscombe, Schmitt & Harvey, 1999; Jasinskaja-Lahti, Liebkind & Solheim, 2009) or intergroup threat (Stephan & Stephan, 1996, 2000; Riek, Mania & Gaertner, 2006), improvement of mutual attitudes through positive contact experiences (Pettigrew & Tropp, 2006, 2008; Pettigrew, Tropp, Wagner & Christ, 2011), the devastating effect of negative contact (Barlow et al., 2012), intergroup perceptions and stereotypes (Yzerbyt et al., 1997; Yzerbyt & Demoulin, 2010; McGarty, Yzerbyt & Spears, 2002), etc. Social

psychologists often investigate these phenomena in studies with immigrants. Interestingly enough, the adaptation literature, although also heavily relying on immigrants, seems to have failed to connect to this field of research. Apart from works on acculturation and ethnic/mainstream identification, studies including intergroup factors have largely overlooked relevant insights from social psychology (for some exceptions, see Shupe, 2007, referring to social identity theory; Li & Gasser, 2005, and Geeraert, Demoulin & Demes, 2014, referring to the contact hypothesis).

Yet, such insights may help refine adaptation research. For instance, the adaptation literature assumes that intergroup contact is relevant because, on the one hand, it triggers 'culture shock' (i.e., stress responses), and on the other hand, it serves as a culture learning opportunity (cf., Ward et al., 2001; Masgoret & Ward, 2006). Within the area of intercultural relations, research on the contact hypothesis offers a number of more fine-grained predictions; for example, that the beneficial effects of contact are exerted mostly through anxiety reduction and empathy processes (Pettigrew & Tropp, 2008; Pettigrew et al., 2011), or that the quality of contact matters (Barlow et al., 2012). Similarly, adaptation research finds that perceived discrimination is correlated with adaptation, but only speculates about the processes behind this correlation (cf., Wilson et al., 2013). Intergroup research, in turn, offers processual explanations that link perceived discrimination to disengagement from the host culture (Rejection-Disidentification Model; Jasinskaja-Lahti et al, 2009) and to increased identification with the discriminated minority group (Rejection-Identification Model, Branscombe et al., 1999). Moreover, it draws attention to other relevant kinds of intergroup tensions, such as intergroup threat (Integrated Threat Theory, Stephan & Stephan, 1996, 2000). Finally, while the adaptation literature only mentions intergroup perceptions and attitudes in theory (cf. the ABC model, Ward

et al., 2001), intergroup cognition research shows how these have an adaptive function of explaining the social world (Yzerbyt et al., 1997; Yzerbyt & Demoulin, 2010; McGarty, Yzerbyt & Spears, 2002).

The current thesis is a step toward bridging both research areas. It reaches out for these and other theoretical tools from the intergroup research area and employs these tools to interpret previous findings and provide a systematic analysis of the relevance of intergroup factors for cross-cultural adaptation.

Overview of The Current Thesis

Figure 3 summarizes the flow of the current thesis. By intergroup factors I mean factors that, in interactions between members of different social groups, affect these members' feeling, thinking and behavior due to their group identification. Some factors meeting this definition have already been included in adaptation research, but in most cases without being approached as such. Therefore, the first logical step of a systematic examination of their role in cross-cultural adaptation should consist of determining what is actually known about social-contextual influences on adaptation, and how much of these social-contextual influences included by previous research are actually intergroup factors. This general question concerning the current state of knowledge was broken down into two specific research questions:

RQ1: Which social-contextual factors are studied, and which are overlooked, in adaptation research?

RQ2: Which social-contextual factors are the most relevant to cross-cultural adaptation?

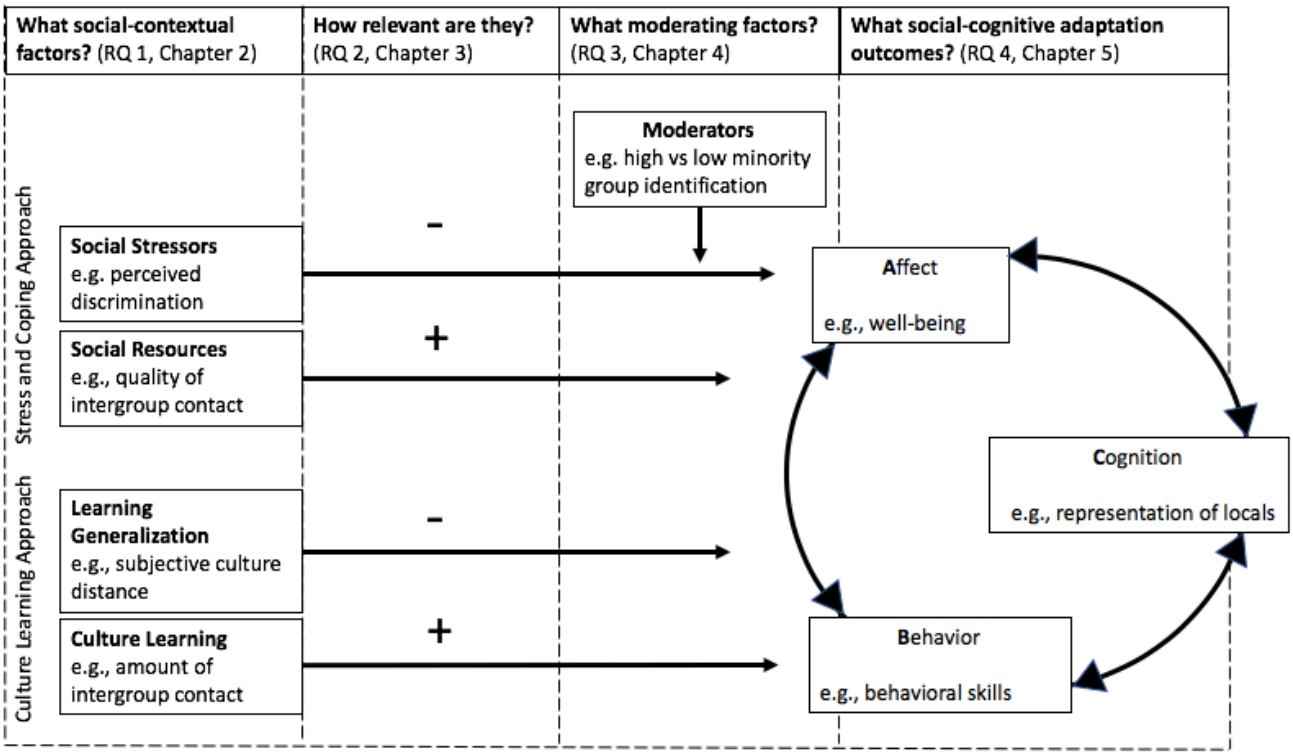

Figure 3. Overview of the chapters and research questions of the present thesis.

Answering these two research questions requires using literature synthesis techniques (i.e., qualitative and quantitative literature review); this was done in studies reported in Chapter 2 and 3.

Although both Berry's acculturation model and Ward's ABC model are universalistic in their assumptions (cf., Sam & Berry, 2010; Berry, Poortinga, Segall & Dasen, 2002), cross-cultural adaptation is not necessarily approached as a universal phenomenon in research practice. It tends to be studied separately for three different adapting populations (expatriates and their families, migrants, international students), which has resulted in three distinct adaptation literatures, each one with its own assumptions and factors of interest. The studies presented in this thesis bring the three literatures together and examine the role of the social context for all

three populations in order to understand whether the same or different factors are relevant for each of them.

Chapter 2 reports a systematic review of literature conducted to address RQ1. This review covered 217 quantitative studies published between 1988 and 2014. It examined three groups of variables: (1) variables related to culture learning (socio-cultural adaptation as an outcome; cultural distance and social interaction as predictors), (2) variables related to stress and coping (psychological adaptation, social support, stressors) and (3) family-related variables. I was interested in the coverage of these variable groups in research on the three adapting populations.

Chapter 3 reports a meta-analytical study that addresses RQ2. This study consisted of 119 different meta-analyses of 213 primary studies[1], as well as moderation analyses with six moderating factors. It examined the same broad categories of variables related to culture learning and stress and coping as in the review, but this time a number of sub-categories was added. For example, I distinguished between self-rated cultural distance and 'objective' cultural distance based on external measures; between interaction with co-nationals and host-nationals; between different types of co-national and host-national coping resources (e.g., social support, friendships, contact quality); and finally, between five types of social stressors (i.e., perceived discrimination, other acculturative stressors, low social status, general stressors and occupational stressors). Moderators included Western vs. non-Western host country, type of adapting population, study design (longitudinal vs. cross-sectional), mean age of the sample, gender composition, and mean length of sojourn in the host country.

[1] The pool of studies reviewed in Chapter 2 partially overlaps with studies meta-analyzed in Chapter 3. More specifically, 21 studies included in Chapter 2 were excluded from Chapter 3 because the reported statistical information was insufficient for a meta-analysis. Conversely, 17 studies were added in Chapter 3, including 13 unpublished studies and 4 newly identified studies.

In order to achieve a more complete examination of the role of intergroup factors in cross-cultural adaptation, more studies were conducted with the purpose of looking into the mechanisms that link these factors to adaptation, and of clarifying social-cognitive outcomes (mentioned in the ABC model) of cross-cultural adaptation. These studies aimed at addressing the following research questions:

RQ3: What factors attenuate, and what factors aggravate the link between intergroup factors and adaptation?

RQ4: How is cross-cultural adaptation manifested at the level of social cognition?

The study reported in Chapter 4 addresses RQ3. Since intergroup factors relevant to adaptation are numerous, it would not be possible for us to look at the processes behind all of them. Instead, I chose to focus on the factor that seems best documented by previous research: intergroup tension, and to examine the conditions under which its negative effects show. In the adaptation literature, intergroup tension is studied mostly as perceptions of discrimination (c.f., Wilson, Ward & Fischer, 2013). However, the intergroup literature adds other instances of intergroup tension, such as intergroup threat (Stephan & Stephan, 1996, 2000), that are also likely to be relevant to adaptation.

In an attempt to bridge both approaches, our study relied on two theoretical sources: the stress and coping approach to adaptation (cf. Ward et al., 2001) and intergroup models of perceived discrimination (Branscombe et al., 1999) and intergroup threat (Stephan & Stephan, 1996, 2000). I tested the classic interaction between stressors and coping resources (Lazarus & Folkman, 1984). Perceived discrimination and intergroup threat were examined as acculturative stressors, and social identification with two ingroups (i.e., the home country group and the international student group) as a coping resource that, I expected, should alleviate the effects of

stressors. The study was cross-sectional and consisted of an online survey that was completed by 220 international students sojourning in eight European countries.

Chapter 5 reports a series of studies that address RQ4, as well as one methodological shortcoming of the adaptation literature, that is, its tendency to rely on self-reports. Going beyond that tendency, I used the Reverse Correlation Paradigm (RCT; Dotsch, Wigboldus, Langner, & van Knippenberg, 2008) to investigate whether adaptation is reflected at the level of social cognition as suggested by the ABC model. RCT allows for grasping visual representations of any social category of interest and for determining diverse characteristics of these representations, for example their valence. I focused on the representation of the host national outgroup held by sojourners as a function of their cross-cultural adaptation. In these studies, the samples were mixed and consisted of international students, expatriate academics and migrants residing in Portugal who produced images of a 'typical Portuguese'; in a second phase, these images were evaluated by independent judges.

Taken together, the studies presented in these chapters systematize and advance the knowledge of the role of intergroup factors in cross-cultural adaptation. In the last chapter of this thesis, Chapter 6, I discuss our findings altogether and reflect on their implications for cross-cultural adaptation theory and research. I propose several extensions of the ABC model of culture contact and several new research avenues that stem from our findings.

Chapter 2.

Socio-Cultural Factors as Antecedents of Cross-Cultural Adaptation in Expatriates, International Students and Migrants: A Review.

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Abstract

Currently, international mobility is common. Living abroad requires adaptation to the new culture, and adaptation outcomes are influenced by various socio-cultural factors. The literature examining these factors is vast but highly specialized. This paper reviews studies on adaptation in various groups of cross-cultural travelers in order to identify the social and cultural contextual antecedents that have been overlooked in each of the specialized research areas. Our review reveals three distinct literature fields: on expatriates and their spouses, on international students and on first-generation migrants. Each of them conceptualizes adaptation in a different manner. The literature on expatriates is pragmatically oriented and centered on the work context, which translates into a preference for variables that can be easily linked to expatriate work outcomes (socio-cultural adaptation, work-related antecedents). In contrast, the literature on migrants focuses on psychological outcomes of adaptation and tends to understudy factors related to the overall efficacy of migrants' functioning within the host society. The literature on international students is the most eclectic and diverse, both conceptually and empirically, but lacks a common direction. We discuss the differences between these three literature groups in detail and formulate several recommendations for future research.

Keywords: cross-cultural adaptation, contextual antecedents, expatriates, expatriate spouses, first-generation migrants, international students

In this era of more open frontiers, international mobility is common. People who live, study and work abroad are not only introduced to unfamiliar cultures but sometimes also immersed in them for long periods of time. Not all of them adapt easily to the unfamiliar realities that surround them. Attempts to explain what determines the success or failure of the international experience have resulted in a vast literature on cross-cultural adaptation.

While adaptation is assumed to be a universal phenomenon for all those who are in intercultural transitions, the socio-cultural context in which it occurs definitely matters. Some authors claim that the role of context is understudied, and urge research to address this gap (Ward, Fox, Wilson, Stuart & Kus, 2010; Doucerain, Dere & Ryder, 2013). On the other hand, a high degree of specialization can be observed in the adaptation literature, which, as we will show, tends to examine clearly defined adapting groups. In this sense, the group-specific context of cross-cultural transition is somehow taken into account. The question remains to what extent a group-centered approach is able to capture the contextual influences that matter for adapting to everyday life in a new country.

The present paper examines the role of socio-cultural context in cross-cultural adaptation as it is seen and applied in previous adaptation research. We compare research on four groups of intercultural travelers: expatriate employees, their families, international students and first-generation migrants. The main purpose of such comparison is to identify the socio-cultural contextual correlates of adaptation that might be relevant for each of these subpopulations but have been overlooked or neglected by most studies specialized in a particular subpopulation. We also track and discuss the implicit assumptions on how intercultural experiences look like in each

subpopulation, which appear to determine researchers' choices, and we indicate some aspects in which each research subarea might benefit from the insights of the remaining subareas.

Theoretical Approaches to Cross-Cultural Adaptation

Whereas several models of adaptation can be found in the literature, Ward and colleagues' (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward, Bochner & Furnham, 2001) model is one of the most influential conceptualizations. This model views adaptation as a bi-dimensional phenomenon. The first dimension, socio-cultural adaptation, refers to the behavioral domain and to the efficacy in achieving one's everyday goals in the new culture. It is acquired in a culture learning process (e.g., culture specific skills, norms and so on). The second dimension, psychological adaptation, refers to one's well-being within the new culture and is underpinned by the process of coping with the stress of intercultural transition.

Our review relies on this bi-dimensional model for two reasons: first, it appears to be the most comprehensive conceptualization in that it takes into account the psychological dimension (i.e., well-being), absent in alternative approaches such as Black, Mendenhall and Oddou's (1991) model. Thus, it allows for a more complete review of cross-cultural adaptation outcomes. Second, other conceptualizations of adaptation are generally compatible with it, which enables us to compare works guided by different theoretical approaches. For example, whereas in the Ward and colleagues' approach the occupational aspect of adaptation is covered by socio-cultural adaptation, Aycan (1997) proposes extracting it as a third component (i.e., work adaptation). Similarly, Black et al. (1991) distinguish between general adjustment (i.e., adjustment to general living conditions), interaction adjustment (i.e., adjustment to social interaction with locals) and work adjustment. These three factors describe foreigner's social functioning within the new

culture and refer to aspects that are acquired by culture learning. As such, they roughly fit in Ward and colleagues' socio-cultural dimension.

To illustrate this, there is clear correspondence between the items of the adjustment scale used in the Black and colleagues approach (Black & Stephens, 1990) and the Socio-Cultural Adaptation Scale by Ward and colleagues (SCAS; Searle & Ward, 1990; Ward & Kennedy, 1999). Both instruments assess, among others, the degree of adjustment to local food, transportation, accommodation, to interacting, communicating and socializing with host nationals, etc. One important difference lies in the question participants are asked: "How difficult is it for you to…" (SCAS, Ward & Kennedy, 1999) versus "How adjusted are you to…" (Black & Stephens, 1990). While the former points more specifically to the behavioral domain, the latter is more ambiguous and may be interpreted as referring to both the affective and behavioral domain, thus leading to confounding psychological and socio-cultural aspects of adaptation. Nevertheless, because both instruments rely, rather than on actual behavioral indicators, on foreigners' subjective perceptions of their own adaptation degree and these are inevitably tinted with affect, we assume that they capture comparable psychological phenomena.

Finally, the notion of cross-cultural adaptation as defined by Ward and colleagues has also found its place in Berry's (1997) model of acculturation. Berry (1997, 2005; see also Ward et al, 2010) views adaptation as the product of complex acculturation processes guided by people's motivation to create ties with the host culture on the one hand, and to preserve their ties with the native culture on the other. Of course, the four acculturation strategies identified by Berry (i.e., assimilation, integration, separation, marginalization) go beyond adaptation in that they involve aspects related to the native culture (ethnic identity versus mainstream identity, contact preferences, etc.), and as such none of them can be treated as a proxy or an indicator of

adaptation. Despite the evidence that the integration strategy is related to best adaptation outcomes (see Berry, 1997, for a discussion), there is no one-to-one correspondence and other strategies may be more adaptive in some social contexts, especially if they are congruent with ideologies and preferences of the host national majority (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002; Brown & Zagefka, 2011).

Let us also note that two terms can be found in the literature: 'cross-cultural adaptation' and 'cross-cultural adjustment'. There is no consensus on whether and how these two notions differ. Haslberger and Brewster (2007) propose that 'adjustment' refers to minor changes to cope with new situations, while adaptation refers to large-scale changes and major re-alignments following a serious crisis; the term 'adjustment' is therefore more adequate for sojourner groups. In contrast, Ali, van der Zee and Sanders (2003) suggest that 'adaptation' refers to the process of dealing with intercultural transition, while 'adjustment' is the outcome of this process. Other authors choose to use these two terms interchangeably (e.g., Ward et al., 2001), and since this practice is widely spread, we will subscribe to it in the current paper.

What is Universal about Cross-Cultural Adaptation?

Since being immersed in an unfamiliar culture should always impose on an individual some adaptive modifications at both behavioral and psychological level, adaptation seems to be a universal phenomenon for all intercultural travelers regardless of the goal of their move or its circumstances. Because the two main processes that underpin it (i.e., culture learning versus stress and coping; Searle & Ward, 1990; Ward et al., 2001) are also assumed to be universal, some of the factors that affect them should be common to all adapting groups.

For instance, the culture learning process behind socio-cultural adaptation is very much a form of social learning (Searle & Ward, 1990; Ward et al., 2001; Wilson, Ward & Fischer, 2013). While explicit cultural norms can be learnt from books, implicit norms can only be acquired from members of a given culture. Thus, the amount and quality of interaction with host country nationals should be relevant in all contexts. Another aspect of culture learning is learning generalization (Wilson et al., 2013), which is determined by the extent to which the unfamiliar culture differs from an individual's native culture (i.e., cultural distance), another potentially universal factor.

As with any other coping process, coping with intercultural transition is determined by the presence of stressors on one hand, and of coping resources on the other (Lazarus & Folkman, 1984; Ward et al., 2001). Some stressors are typical for intercultural transition; the literature labels these as acculturative stressors (e.g., Berry, Kim, Minde, & Mok, 1987). Two prominent examples are language barriers and discrimination from locals. Among coping resources, social support seems to be the best candidate to be relevant across most contexts. Since adapting individuals have left behind most of their social ties, they are likely to depend on their ability to establish now social support networks (e.g., van Erp, van der Zee, Giebels, & van Duijn, 2013)[2].

Transitions in a Context: Taxonomies of Intercultural Travelers

Although some factors may be universal, the patterns of their influence in the adaptive process may differ as a function of the goal of the move, of who is moving, from what country,

[2] Of course, the distinction between culture learning-related factors and stress-related factors is a simplification, and more complex relations may exist in reality. For example, while cultural distance is typically associated with culture learning, it is also relevant to stress and coping processes as a larger perceived distance means greater life changes, greater demands from the host country environment, and thus more stress (Ward & Searle, 1991). For the sake of simplicity, this review will follow the commonly accepted model associating cultural distance and host interaction with culture learning processes and socio-cultural adaptation on the one hand, and stressors and social support with stress and coping processes and psychological adaption on the other hand.

to what country, and in what circumstances. For example, although discrimination should always be seen as a threat, work-related discrimination against women is a relevant factor for a woman who intends to find a job in a new country, but not for a male who has the same goal, and not for a female student who does not intend to work during her study stay.

One way of taking such differences into account is to study, one by one, specific groups of intercultural travelers. Such an approach seems to be common in adaptation studies. In this sense, Berry (1997; see also Ward et al., 2001, for a detailed description) proposed a taxonomy of adapting populations that takes into account only one factor: the motive of the move. The use of this single criterion implies the underlying assumption that different motives correspond with different characteristics of the transition, and hence create different contexts of adaptation. This taxonomy includes four groups: international students, expatriate employees, migrants and refugees. The two former groups have an occupational motive (study or work abroad) and their sojourn is assumed to be temporary, while the two latter groups are distinguished by the pull- and push-factors that motivate them for the move, and their sojourn abroad is assumed to be permanent.

Of course, the world has changed considerably since this taxonomy was first forged. The forms and dynamics of international transitions have evolved, and the lines have been blurred with phenomena such as serial migration, sojourners (particularly international students) turning into long term migrants, or the increasing transnationalism. Although Berry's (1997) taxonomy may not be the best reflection of today's complex reality, it still does reflect the research practice. The tendency to define target populations based uniquely on a common goal still persists in the literature, and the current review follows it.

However, more fine-grained taxonomies of intercultural travelers founded on other criteria do exist, especially in the field of human resources management. For instance, Suutari and Brewster (2000) propose a distinction based on whether the move from one country to another is initiated by a company (organizational expatriation, OE) or the expatriate workers themselves (self-initiated expatriation, SIE). Shaffer, Kraimer, Chen and Bolino (2012) identify international business travelers (who relocate for short periods counted in weeks), flexpatriates (who travel for slightly longer periods but still have their base at home) and traditional expatriates (organizational and self-initiated). Brewster, Bonache, Cerdin and Suutari (2014) mention short- term and project assignments, commuter assignments, frequent flyers and electronically provided international experiences. Except for the distinction between SIEs and OEs, these recent categories have not found their place in adaptation research yet, which makes them less suitable for our review.

We are not aware of explicit sub-taxonomies of similar complexity for the remaining two groups (besides the distinction between unskilled, skilled and high-skilled migrants used in economics and sociology, but rarely in psychology). Still, the need for such taxonomies is vital to account for the great variety of transition contexts that exist in today's global world. For example, studying abroad as a short-term exchange student (e.g., within the Erasmus exchange program), as a student of a joint degree program which requires movement between several host countries (e.g., Erasmus Mundus joint master/doctorate degrees), or as a student enrolled in an educational program in the host country might be very different experiences. So far, however, such sub-categories are not common in adaptation research.

Therefore, relying on Berry's (1997) taxonomy of groups in intercultural transitions, this review only broadly divides intercultural travelers into expatriate employees (including co-

sojourning family members), international students and migrants. The distinction between SIEs and OEs was included as a subcategory within the group of expatriate employees, which did not affect the main categories. These categories, we argue, still correspond with researchers' assumptions about their target populations and are broad enough to cover the most relevant acculturating groups[3].

The Downside of Specialization

Of possible determinants and dimensions of cross-cultural adaptation, different ones are studied based on different sub-populations. That could make a lot of sense, because not all of these factors might be relevant for all contexts. However, the selection of what is studied has not resulted from a mature, evidence-based decision, but seems to have followed the intuitions, stereotypes, and assumptions that researchers have held about their target population and the population's particular situation. Therefore, it is necessary to first study all possible predictors and dimensions and only then come to a design decision for future research that is informed by theory and accumulated empirical evidence.

Let us take three meta-analytic studies as an example. Two of them summarized findings in the area of expatriate adjustment (Hechanova, Beehr, & Christiansen, 2003; Bhaskar-Shrinivas et al., 2005), and both shared the same key finding: that spousal/family adjustment (i.e., the degree to which the spouse or the family have adapted to living abroad) is the strongest correlate of expatriate adjustment (r = .64 as per Hechanova et al., 2003; and ρ = .60 as per Bhaskar-Shrinivas et al., 2005). A third meta-analysis looked at socio-cultural adaptation of international

[3] Two groups distinguished by Berry (1997) were excluded from this review: tourists and refugees. In case of tourists, and more recently other groups in very short-term transitions (e.g., international business travelers as defined in Shaffer et al., 2012), it appears that the notion of cross-cultural adaptation does not apply due to insufficient duration of their sojourns abroad. We did not find any empirical study that would attempt such application. In case of refugees, psychological outcomes typically used to tap adaptation (e.g., well-being, depression, satisfaction in life) may not reflect adaptation, but be related to possible negative/traumatic experiences prior to relocation.

students and migrants (Wilson et al., 2013) and identified another robust social-cultural predictor: perceived discrimination (r = -.50). Significantly, perceived discrimination is absent from both above-mentioned expatriate meta-analyzes as well as from research specialized in expatriate employees, as we will show later. On the other hand, family adjustment is absent from the meta-analysis on students and migrants, simply because it is not studied in the respective research areas.

This demonstrates the strength of the assumption about differences between the target populations, and how far its consequences go. Although this assumption is certainly true to a certain extent, it is not self-evident that the different groups of intercultural travelers should differ to a degree that would make the most robust predictors for one population completely irrelevant for the remaining ones. Research should address these omissions. Still, family adjustment and perceived discrimination are only two examples, and many other variables may be omitted under the same assumption. A systematic comparison of adaptation research on different populations of intercultural travelers is required to identify these neglected variables. The current review intends to provide such comparison.

Methods

Our methodological approach to data extraction and coding was adopted from the Matrix Method (Garrard, 2011), a framework for systematic literature reviews originally developed for health research. In this method, all the relevant parameters of the reviewed studies are coded in a matrix in order to facilitate comparing them.

Inclusion Criteria and Coding

The present review includes quantitative studies published between 1988 and 2014 that report at least one measure of socio-cultural or psychological adaptation, and at least one correlate of cross-cultural adaptation representing the characteristics of a foreigner's socio-cultural environment or his/her interaction with this environment. The lower limit corresponds with Black's 1988 publication which was the first to adopt a contemporary approach to cross-cultural adaptation in the area of expatriate research. The early works by Ward and colleagues (Searle & Ward, 1990; Ward & Searle, 1991; Ward & Kennedy, 1992, 1993a, b) represented such a cornerstone for research on international students. There are earlier studies on cross-cultural adaptation, but their theoretical and methodological approaches (e.g., the 'culture shock' framework) make them difficult to compare to contemporary adaptation research.

To avoid confusion, we adopt the general term of 'intercultural traveler' from Ward, Bochner and Furnham (2001) to define our target population. This population consists of people in cross-cultural transitions with a duration counted at least in months. Such definition excludes tourists, repatriates, and second or further generation immigrants. An exception was made for migrant studies in which at least ~50% of the participants were first generation. Because we opted for using this criterion flexibly, the lowest percentage of first-generation migrants in an included study was 46.

Measures of social difficulties experienced in the host society (e.g., Socio-Cultural Adaptation Scale; Ward & Kennedy, 1999) and of actual endorsement of the new culture were coded as socio-cultural adaptation. The latter were usually employed in studies relying on Berry's (1997) acculturation model and sometimes labeled as 'acculturation level' (e.g., high or low acculturation; generally, this label refers incorrectly to the degree of support for the

assimilation strategy; Berry 2006). Although acculturation is by no means equivalent to cross-cultural adaptation, some acculturation-related measures tap into behavioral aspects that can be seen as outcomes of culture learning (e.g., Behavior in Host Domain Scale, Galchenko & van de Vijver, 2007; sample item: "How often do you ask for help/advise of Russian [local] students?"; items assessing the use of the local media, music, entertainment, food, Behavioral Acculturation subscale for American Acculturation, Birman, Simon, Chan, & Tran, 2014; etc.). In this sense, we considered some acculturation-related measures as informative of participants' degree of socio-cultural adaptation. Only measures reflecting foreigners' participation in the host culture were registered; measures referring to the maintenance of heritage culture or combining both dimensions into a single score were not considered.

Moreover, we omitted domain-specific measures such as work or academic outcomes (performance, job satisfaction, withdrawal intentions, etc.). As shown in previous reviews, these variables should be viewed as more distal consequences of adaptation rather than as synonyms (Bhaskar-Shrinivas et al., 2005; Hechanova et al., 2003).

Psychological adaptation included positive and negative operationalizations typically used in research (self-esteem, satisfaction with life, positive affect; depression, psychological distress, perceived stress; Ward et al., 2001). We excluded pathological symptoms such as trauma, post-traumatic stress disorder, antisocial behavior, etc. This category also included general operationalizations of adaptation (e.g., one-item measures of satisfaction with the sojourn abroad, measures with mixed items referring to both dimensions, etc.) because we assumed that such measures capture, in the first place, subjective perceptions of one's adaptation and better fit psychological than behavioral domain.

Search Procedures

The literature search was performed using the EBSCO host in the following databases: Academic Search Complete, Business Source Complete, Education Source, ERIC, Teacher Reference Center, Hospitality & Tourism Complete, PsycARTICLES, PsycINFO, Psychology and Behavioral Sciences Collection, and SocINDEX with Full Text. In order to comprehensively analyze the relevant literature, we conducted a rather inclusive search including all search terms that might be relevant for the topic of interest: 'expatriates', 'international students', 'expatriate spouses', ‘migrants’, ‘immigrants’, 'cross-cultural adaptation', 'socio-cultural adaptation', 'psychological adaptation', 'cross-cultural adjustment', 'socio-cultural adjustment', ‘psychological adjustment’. Unspecific keywords for the typical operationalization of psychological adaptation (‘stress’, ‘distress’, ‘depression’, ‘well-being’, ‘self-esteem’, ‘satisfaction with life’) were paired with specific terms (e.g., ‘expatriates AND well-being’). We also screened the reference lists of the retrieved papers and other publications (e.g., previous systematic and meta-analytic reviews of literature: Hechanova et al., 2003; Bhaskar-Shrinivas et al., 2005; Zhang & Goodson, 2011a; Wilson et al., 2013, Schmitt, Branscombe, Postmes, & Garcia, 2014) in search of relevant studies, and followed the suggestions of related studies from the online services of the publishers.

This initial screening resulted in 428 retrieved papers. Of these papers, 208 failed to meet our criteria: 154 studies did not report antecedents or outcomes of our interest, used operationalizations that did not fit our definitions or did not report results corresponding with these variables; 26 studies turned out to be qualitative, and 28 used migrant samples composed predominantly of second or further generation immigrants. Three further studies were excluded because they reported the same effects for exactly the same sample (based on sample size,

sample description and sampling procedure) as other included studies from their authors. After a careful analysis, 222 studies published in 217 papers were included in the current review.

Data Extraction

From each study, we extracted all the factors associated with cross-cultural adaptation that did not represent personality or other individual characteristics (e.g., demographic factors, personal attitudes, social identity, etc.). Sample characteristics (% male, average age, average length of stay abroad, home and host country) were registered separately.

In the next phase, we conducted a more in-depth qualitative analysis of both the extracted variables and their assessment methods in order to understand which of them represent the characteristics of foreigner's socio-cultural environment. All the social-contextual variables identified in this procedure were retained for further analyses and classified, using content analysis approach (Smith, 2000; Schreier, 2014), into five categories: (a) cultural distance/novelty (self-rated or based on external indicators such as Hofstede's culture dimensions), (b) social interaction with locals, co-nationals and other nationals (frequency of contacts, size of the network, and other quantitative indicators of social interaction), (c) social resources (social support, organizational support, friendship, and other indicators of perceived quality of social relations, except for family support[4]), (d) social stressors (e.g. discrimination and other acculturative stressors, but also more general stressors such as life changes or changes

[4] This category includes variables that may overlap with adaptation outcomes. For example, loneliness and lack of social support may be due to being far from one's friends and family in the home country, but they may also be seen as indicators of social difficulty, that is, of poor socio-cultural adaptation. Some studies (e.g., van Oudenhoven, Mol and van der Zee, 2007; Coatsworth, Maldonado-Molina, Pantin, & Szapocznik, 2005) used a measure of peer support as a proxy of social adjustment. However, because social support is traditionally studied as a coping resource in the stress and coping literature, and support-related variables such as loneliness or social connectedness are typically used as predictors variables in cross-cultural adaptation literature (e.g., Ward & Rana Deuba, 2000; Ward & Searle, 2001; Leung, 2001a; Zhang & Goodson, 2011b; see also Ward & Kennedy, 1999, for a discussion of measurement of socio-cultural adaptation), this review considers social resources as correlates of adaptation. Future longitudinal research may clarify the actual causal relations between perceived social resources and adaptation outcomes.

in social status, and domain-specific stressors such as excessive workload), and (e) family-related factors (e.g., family members' adjustment to living abroad, marital status, family support, etc.). Several other category labels were tested in order to empirically establish the number of categories. A higher number of labels (seven) resulted in excessively narrow categories, and the classification of more general variables became ambiguous as they fit into more than one label. With a lower number (three), the categories were too broad and not sufficiently informative. The five categories appeared to be the optimal number for our purposes.

While the categorization process was essentially data-driven (Schreier, 2014), the final categories were based on the Ward and colleagues' (2001) model. Cultural distance (related to learning generalizability) and social interaction (related to social learning) were distinguished as categories referring to socio-cultural adaptation and culture learning approach in research, while social resources and stressors were distinguished as categories referring to psychological adaptation, and stress and coping approach.

Finally, although not based on the Ward and colleagues' framework, family-related variables were considered separately. Previous research shows that the role of the family as part of the social context of adaptation is critical (Hechanova et al., 2003; Bhaskar-Shrinivas et al., 2005) and dependent on family dynamics: family members may facilitate adaptation by providing support (see Ward et al., 2010), by facilitating social interaction and culture learning, or even by compensating for one's deficits in adaptive personality traits (van Erp et al., 2013). However, family can hinder adaptation if they themselves are not adapted (Black & Stephens, 1989). Suspecting that family-related variables are linked to both coping processes and culture learning processes, we decided to consider them as a distinct category.

Findings

Appendix A provides an overview of our findings. For the sake of simplicity, in the following text references to included studies are made by listing in parentheses the index number of the respective study in Appendix A (e.g., “6, 12” would refer to Ataca & Berry, 2002, and Black, 1988).

Studies’ Characteristics

The 217 papers were published in 90 journals. Most of them are dedicated to psychology and applied psychology (k=73), cross-cultural themes (k=65), and business/human resources management (k=36). Journals of psychiatry and health (k=15), education (k=13), human development and family issues (k=10), and communication (k=4) were also represented. One journal was not classified (52).

With regards to the research designs, we found 29 longitudinal studies, two studies reporting external data (company/supervisory performance ratings) from the same organization but measured at two time points (24, 185), and one study reporting data from two time points from two different samples (137) (cf. Appendix A). Three studies relied on retrospective reports (34, 124, 128). Sixteen studies (but no studies on expatriate employees) used a control group, while the authors of 27 other studies introduced comparisons between subsamples based on the nationality of participants or the country of their sojourn. Several studies on expatriate employees (with expatriate samples only, k=7 or with matched samples of expatriates and spouses, k=7), one study on international students (49) and one study on first-generation migrants (152) used multiple sources of data (e.g., supervisory ratings of performance, spousal ratings of adjustment, etc.). All the remaining studies relied on self-report measures.

Participants' Characteristics

Our corpus of studies covers four groups of sojourners: (a) expatriate employees (organizational and self-initiated, but also such groups as expatriate academics or international aid workers, k=57, including seven studies with matched samples of expatriates and their spouses), (b) expatriate spouses and families (k=16, including one study on expatriate children and seven studies with matched samples), (c) international students (k=96) and (d) first-generation migrants (k=58). Three studies (51, 116, 187) employed mixed samples including more than one of these groups. The characteristics of these three studies are presented in Table 1 and Appendix A, but they will not be discussed below.

The four target groups differ with regards to demographic characteristics. The average participant from the international student group is around 24 years old and has been living in the host country for about two years. The average expatriate employee and the average expatriate spouse are 41 years old, on assignment for about three years. For adult first-generation migrants, the average age is 36 years and the length of sojourn is 10 years. Furthermore, there are 14 samples consisting of children and adolescent migrants, with the average age of 15 years and average length of sojourn of five years. Fifty-two percent of students, 77% of expatriate employees, 8% of expatriate spouses and 47% of migrants are male.

Another difference between the four groups is the direction of international transition. Students typically come from non-Western countries and move to Western countries (k=59). Most of the student samples in our corpus originate from Asia (k=54, in 22 of these studies from China, including Taiwan) and sojourn in the USA (k=58), more rarely in Australia, New Zealand and Canada (k=12), Europe (k=9, including Turkey) and highly developed Asian countries/states (Hong Kong, Singapore, South Korea, Taiwan; k=9). This tendency is even more accentuated in

the migrant group. Our corpus includes 47 studies with non-Western samples or subsamples and 11 studies with Western samples or subsamples (out of which seven are from the former Soviet Union) of migrants, with host countries that are either Western (k=52), or highly economically developed (k=4, Israel and Hong Kong). For the expatriate workers and their families, the direction is opposite. Western and mostly Western samples predominate (k=34, compared to 11 non-Western samples, most of them from highly developed countries: Japan, Taiwan, South Korea, South Africa, one sample from China and one atypical sample of female temporary workers from the Philippines, 23), while the host countries tend to be non-Western (k=25). However, many studies from this group include mixed samples, both with regards to the home (k=14) and the host country (k=21).

Even though the studies tend to indicate clearly which category of intercultural travelers they are interested in, the sampling procedures used often allow an overlap between these groups. For instance, some studies on international students selected their samples based on foreign-sounding names from student lists provided by universities. In one of the studies (not retained), this led to including Chinese migrants from first to fifth generation. Similarly, three studies (40, 50, 125) in our corpus identified self-initiated expatriates using the criterion of having a local work contract. This criterion distinguishes SIEs from OEs, but not from migrants.

While most authors of studies on expatriate adjustment assumed that their sample consisted of OEs, only the three above-mentioned studies actually distinguish them from SIEs. In 20 studies, the sampling methods (e.g., requesting assistance from company's headquarters to reach expatriates in the subsidiaries) maximized the possibility that participants were effectively recruited from the OEs group. However, in most cases the sample composition remained

ambiguous (sampling based on the directories of chambers of commerce or other organizations, announcements in magazines for expatriates, etc.).

Outcomes: Cross-Cultural Adaptation

Exact frequencies and percentages of socio-cultural variables (both dependent and independent) in our sample of studies can be found in Table 1.

Studies on expatriate employees (68%) and spouses (53%) generally follow Black and colleagues' (1991) model and/or employ the corresponding measures of expatriate adjustment (i.e., the scale developed by Black & Stephens, 1989). Only five studies with expatriate employees relied on different measures of socio-cultural adaptation; in one of them (17), the adjustment degree was coded from qualitative data, and four (111, 136, 160, 177) employed alternative scales. As psychological adaptation is absent from Black and colleagues' (1991) model, only one third of studies on expatriate employees alone utilized measures on this dimension. However, psychological adaptation was reported more often when either expatriate spouses or matched samples (expatriates and spouses) were used (63%). It must also be noted that in the case of both expatriate employees and matched samples, domain-specific measures (work performance, withdrawal intentions, job satisfaction, etc.) were frequently employed. These are not reported here.

In contrast to the expatriate literature, the migrant literature tends to report psychological, rather than socio-cultural, adaptation outcomes. Only four studies (6, 7, 192b, 217) explicitly described the dependent variable as 'socio-cultural adaptation', and 13 studies in total (22%) included measures of this adaptive dimension that fit our criteria (Appendix A, DVs).

Table 1.

Frequencies and percentages of the examined variables in the study sample

	Expatriate employees, k=50 (57)[a]		Expatriate spouses and families, k=9 (16)[a]		Expatriates and spouses, matched samples, k=7		International students, k=94		Migrants, k=57		Mixed samples, k=3		All samples, k=217
	k	%	k	%	k	%	k	%	k	%	k	%	%
DVs													
Psych. adaptation	17 (21)	34 (33)	6 (10)	67 (63)	4	57	80	82	57	97	3	100	58
Socio-cult. adaptation	38 (42)	76 (74)	6 (10)	67 (63)	4	57	48	51	13	22	2	68	63
IVs													
Cultural distance	17 (20)	34 (35)	3 (6)	33 (38)	3	43	16	17	4	7	1	33	26
Social Interaction	9 (9)	18 (16)	2 (2)	22 (13)	0	0	40	43	9	16	1	33	43
Social Resources	26 (27)	52 (47)	7 (7)	78 (44)	0	0	56	60	19	33	1	33	44
Social Stressors	10 (11)	20 (19)	5 (6)	56 (38)	1	14	46	49	50	86	1	33	35
Family-related	26 (33)	52 (58)	8 (15)	89 (94)	7	100	16	17	22	38	2	68	43

Note. [a] Numbers in parentheses include studies using matched samples (expatriates and spouses). Frequencies and percentages for matched samples only are provided separately.

Studies on international students tend to report both socio-cultural (51%) and psychological (82%) adaptation. Socio-cultural adaptation is assessed with various instruments, among which Ward and Kennedy's (1999) scale is the most often employed (18%). The Black and Stephens' scale (1989) was only used four times in this group (48, 49, 53, 168). Some authors utilized more specialized instruments, such as scales developed for Asian samples (86, 93, 110).

Moreover, it must be noted that the studies differ with regards to the terminology that they use to describe their dependent variables. Studies on expatriate employees and their spouses follow Black and colleagues' terminology (Black et al., 1991; Black & Stephens, 1989; Black, 1988; 1990) and prefer the term 'adjustment' to 'adaptation'. In studies on international students, both terms can be found, most often used as synonyms. This corpus often cites Ward and colleagues' works on cross-cultural adaptation (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001). Finally, the literature on migrants hardly ever mentions 'cross-cultural adaptation' or 'cross-cultural adjustment'. It prefers a related, but not synonymous notion of acculturation, associated with Berry's (1997, 2005) acculturation model.

Antecedents: Socio-Cultural Correlates of Adaptation

Cultural distance. Cultural distance/novelty, one of the two non-work antecedents of cross-cultural adjustment indicated by Black and colleagues (1991), is the most frequently investigated for expatriates (35%) and their families (38%). Fewer studies report this variable for students (17%), and only four studies on first-generation migrants take this factor into account (7%). Self-reports of cultural distance predominate over external measures based on the characteristics of native vs. host country of the participant (e.g., Kogut & Singh’s index, 1988)

(respectively, k=16 vs. k=2 for international students, k=15 vs. k=6 in expatriate employees, k=5 vs. k=1 in expatriate families, and k=4 vs. k=1 in migrants).

Social interaction. Social interaction is frequently reported for international students (43%). Besides the quantity and frequency of contact (k=29), this category covers size and composition of their social networks (i.e., ratio of host and co-nationals; k=9); engagement in social activities (e.g., participation in campus events, extracurricular activities; k=4), and ethnic density (k=3). Most of the studies (k=32) distinguish between interaction with non-local people (co-nationals, other nationals; k=20) and host country nationals, with the latter being investigated slightly more often (k=24).

Surprisingly, fewer papers mention effects of social interaction for expatriate spouses (k=2), expatriate employees (k=9) and first-generation migrants (k=9). For expatriate employees, eight studies report interaction with host nationals, while only two studies (13, 190) report co-national interaction. For migrants, five studies report co-national interaction and seven studies report host-national interaction.

Social resources. Social resources are frequently studied for international students (60%), but they are also commonly reported in other groups (see Table 1). The most frequently reported resource is social support. For first-generation migrants, social support is examined in 28% of all studies, most of which do not specify the source of support (k=11). Some other studies distinguish support from host nationals and from co-nationals (k=4), and one study on migrant youth also includes support at school (117). Other social resources reported for migrants are social connectedness (138, 139, 212), strength of friendship with host nationals (76), and loneliness, included in this category as lack of social resources (109).

In works on international students, social support is reported in 34% of studies. Although most of them do not specify the source of support (k=22), others reveal a tendency to distinguish between host national and co-national sources of support (k=15). One study also reports support from international students of other nationalities (186) and three other studies report support from the university (25, 32, 93). Besides that, studies from this group include social resources such as satisfaction with social interactions with host nationals (k=10), with co-nationals (k=10) and overall (k=4); social connectedness (k=6); loneliness (k=7); perceived permeability of the host national group (k=3: 96a, b and 163), closeness of relationships with host, co-, and other nationals (k=1: 54) and satisfaction with one's living arrangement (k=1: 140).

The pattern is different for expatriate employees. Among all the studies reporting social resources, most focus on work-related social support: from co-workers (k=6), supervisors (k=4), and the company (organizational support, k=14). There is less interest in support from host nationals (k=4), co-nationals and other nationals (k=1: 128). Other resources studied in this group include: satisfaction with social interaction (k=5), friendship closeness (k=4) and loneliness (k=1: 190). Finally, studies on expatriate families report social support (k=4, none of them specifying the source), organizational support from the expatriate's employing company (e.g., assistance in finding a job; k=4), satisfaction with social interactions (k=2) and closeness of relationships with host nationals (k=1: 149).

Social stressors. Variables related to social stressors and threats are commonly employed in studies on first-generation migrants (86%) and international students (46%), with perceived discrimination appearing most frequently (k=33 for migrants, k=21 for international students). Additionally, discrimination is measured by subscales of acculturative stress scales (along with other stressors, e.g., language barrier) employed and reported as a single index by 19 studies on

students and 10 studies on migrants. Status-related stressors such as decrease in social status after transition (k=17 for migrants, k=7 for students) and general stressors such as stressful life events (k=4 for migrants, k=10 for students) are also reported. Additionally, seven studies on international students report stressors related to academic life (e.g., academic workload).

In contrast, none of the studies on expatriate families and only few studies on expatriate employees report prejudice-related variables (18, 102) or acculturative stressors (23b, 173). Seven other publications mention different kinds of stressors for employees (i.e., general stressors, k=4; work-related stressors, k=2; income level as a proxy for social status, k=2), and six publications for spouses (i.e., general stressors, k=4; status-related stressors, k=2).

Family-related variables. Family-related factors are most commonly examined for expatriate families (89%) and employees (52%). Spousal/family adjustment, the second of the two non-work factors indicated by Black and colleagues (1991), is often cited in these two groups (k=14). Nevertheless, a number of publications (k=24) examine more sophisticated family characteristics in relation to expatriate adjustment. These are usually related to family functioning (e.g., family support, 80, 149, 175, 184, 193; family cohesion, adaptability, and communication, 2, 31, 136, 174; family-work and work-family conflict, 50, 52, 88; justice in the relationship, 176; conflict in relationship, 176, 178; family attitudes toward the move abroad, 14, 17; parental demands, 149, 160; etc.). These studies often involve both expatriates and their spouses as participants; as such, the degree of diversity of family variables is similar for the two groups.

Regarding international students, marital status is the most often studied family variable (k=9). Less attention is given to family support and cohesion (k=3) and to the presence of the family in the host country (k=3). In the migrant group, variables related to family functioning

and support are studied by 12 studies (e.g., marital stressors and marital support, 6; perceived family functioning, 56, 57, 152; marital satisfaction and parent-adolescent communication, 152; family cohesion, 103, 210; family support, 6, 11, 62, 117). Other family characteristics reported for migrants include marital status (k=8), presence of relatives in the host country (k=2), and child age (k=1).

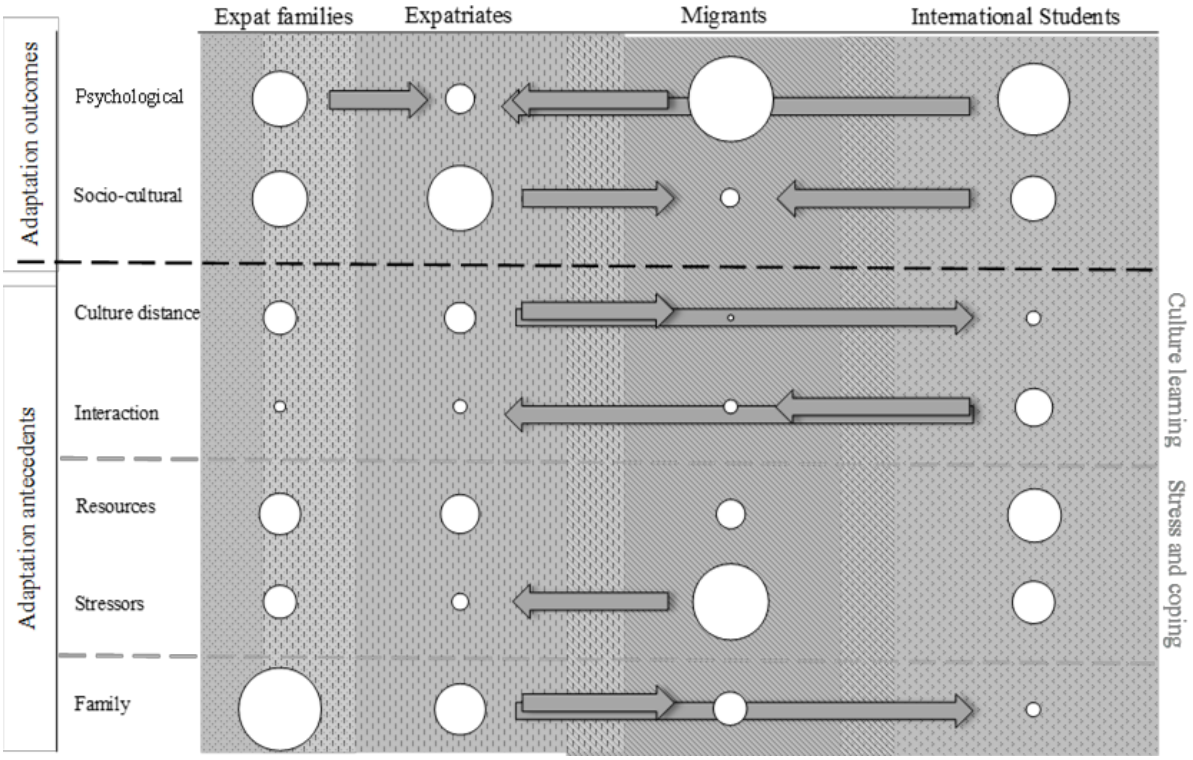

Figure 1. Studied variables of target populations and suggested directions of integration between respective fields. Circles represent groups of variables analyzed in this review, and circle size corresponds with the percentage of studies in which these variables were found in each specialized literature. Overlapping areas indicate possible overlap between target populations (overlap between expatriate families and expatriate group is due to the use of matched samples, other overlaps are due to sampling procedures and criteria). Arrows represent the directions of integration between the respective literatures suggested in this review.

Discussion

To summarize our findings, Figure 1 illustrates the coverage of different categories of variables related to culture learning (socio-cultural adaptation, cultural distance, social interaction) and stress and coping (psychological adaptation, social support, stressors) processes behind adaptation (Ward et al., 2001), as well as family-related variables, in the four populations of intercultural travelers. Several blind spots are exposed. For instance, psychological adaptation is understudied for expatriates, and socio-cultural adaptation for first-generation migrants; culture learning factors (cultural distance and interaction) are overlooked for first-generation migrants, family factors for international students, and stressors for expatriates. Each of these blind spots can easily be addressed by adapting theoretical and operational tools from other areas of research.

Socio-Cultural and Psychological Adaptation

While the literature on students is rather balanced with regards to the use of socio-cultural and psychological adaptation measures, Figure 1 reveals an interesting opposition between the expatriate literature and the migrant literature. The former clearly prefers socio-cultural adaptation outcomes, while the latter focuses on psychological outcomes.

The preference for assessing socio-cultural adaptation in the expatriate literature may have two reasons. First, this literature is dominated by the Black and colleagues' (1991) model which does not include psychological adaptation as a distinct dimension. Second, it is derived in great part from the human resources management field. This may explain why this literature favors dependent variables that have direct links to the actual efficacy of a person's functioning in the new environment, and that can be easily linked with work outcomes. At times, adjustment is even skipped, and work outcomes are reported instead as adaptation indicators (cf. Mol, Born,

& van der Molen, 2005). This preference accompanies less attention given to allegedly less practical domains, such as psychological adaptation.

Interestingly, while the literature on expatriate families can be viewed as an extension of the literature on expatriate workers, sharing the same theoretical approach (i.e., the Black and colleagues' model, 1991) and methods (i.e., scales by Black and Stephens, 1989), it shows a greater interest in assessing psychological outcomes of adaptation. Paradoxically, this may be explained by the same pragmatic concern. Spousal maladjustment is considered one of the main reasons of premature endings of overseas assignments (Black & Stephens, 1989; Black et al., 1991), and the negative symptoms that spouses manifest may be seen as a stimulus that pushes expatriates to withdraw from their assignments and return home. Even if this is true, studying psychological adaptation in spouses rather than in expatriates makes little sense, as there is no reason to think that spouses' maladjustment symptoms should be more devastating for expatriate work outcomes than symptoms developed by expatriates themselves (e.g., decreased motivation or attention deficits). Besides the fact that expatriate well-being is an interesting research topic per se, the link between psychological and social-cultural adaptation outcomes has been clearly demonstrated in the literature (Ward et al., 2001; see also, among others: Ng, Tsang, & Lian, 2013; Kashima & Loh, 2006; Terry, Pelly, Lalonde, & Smith, 2006; Zhang & Goodson, 2011b; Ward et al., 2011), and even pragmatically speaking, studying expatriates' psychological adaptation and its antecedents is of great importance.

One reason why the notion of socio-cultural adaptation is barely present in the migrant literature may be a preference for the notion of acculturation. While, as we argued above, acculturation strategies cannot be seen as proxies of cross-cultural adaptation, a broader definition of acculturation covers adaptive changes in one's behavioral repertoire (Berry, 2005;

see also Brown & Zagefka, 2011). In this sense, acculturation research does provide some insights in the behavioral aspects of migrants' functioning in the host society, and these are closely related to socio-cultural adaptation. We cannot say that the literature on first-generation migrants completely neglects this dimension. However, in acculturation research the focus is on migrants' relation with the host and the heritage culture considered together; on their contact preferences, predominating social identification and attitudes towards both cultures. This is different from socio-cultural adaptation which refers to migrants' efficacy within the host culture as acquired through a culture learning process.

There is, yet, research on migrants that focuses on various social-level outcomes of the different acculturation strategies. However, previous literature reviews (e.g., Brown & Zagefka, 2011) suggest that the reported outcomes are either limited to a narrow occupational domain (e.g., school achievement, Cheung & Llu, 2000) or measured at an intergroup level (e.g., prejudice, mutual attitudes of minority and minority groups, etc.). Such research captures socio-cultural outcomes in these specific domains, but it falls short in capturing the overall image of how migrants function in their everyday life within the host society. Employing general measures of socio-cultural adaptation could be a way to address this gap.

One reason why such measures have found comparatively little interest in research on first-generation migrants may be that the efficacy of migrants is simply assumed. Socio-cultural adaptation is known to resemble a learning curve (Wilson, 2013); it increases with time and has a relatively low tendency to fluctuate (Ward et al., 2001). Given that migrants generally sojourn in host cultures for comparatively long time periods, an implicit assumption may be that assessing the degree of more general socio-cultural adaptation in migrants is not diagnostic because they have already gone through the culture-learning process and achieved at least satisfactory degrees

of adaptation. Data from studies on intergroup comparisons suggest that this assumption may be wrong and should be tested. For example, immigrants in the UK (Jayaweera, 2014; Jayaweera & Quigley, 2010), the Netherlands (Lindert, Schouler-Ocak, Heinz, & Priebe, 2008; Liu, Meeuwesen, van Wesel, & Ingleby, 2015), Switzerland and the USA (Lindert et al., 2008) are less likely than locals to use healthcare services. Communication issues and confusion around the functioning of the healthcare system are cited among the main reasons (Jayaweera, 2014; Jayaweera & Quigley, 2010; Liu et al., 2015), which points to overall socio-cultural adaptation problems. The consequences are tragic: In the UK the mortality rate of Black African migrant mothers is nearly four times that of White host national women due to the lack of antenatal care (Jayaweera, 2014; Lewis, 2011).

In sum, there is no reason to consider that psychological adaptation is less relevant to the expatriate population, or that overall socio-cultural adaptation is less relevant to first-generation migrants, and we claim that the literature on both groups should integrate the underrepresented dimension.

Culture Learning-Related Antecedents of Adaptation: Cultural Distance and Social Interaction

Although we could expect that the presence of antecedents related to culture learning will be stronger in those research areas that have a preference for socio-cultural adaptation outcomes, there are exceptions. For example, the underrepresentation of cultural distance variables in the student literature is difficult to explain given the strength of the culture learning approach in this research area.

It is less surprising that the literature on first-generation migrants, which shows little interest in the overall socio-cultural adaptation, also pays relatively little attention to cultural

distance and social interaction. Admittedly, there are studies examining these antecedents, but they do so in relation to outcomes that our review does not cover. For example, Benet-Martinez and Haritatos (2005) used cultural distance as an indicator of bicultural identity integration, while Coatsworth, Maldonado-Molina, Pantin, and Szapocznik (2005) looked at interaction variables in relation to the four acculturation strategies. Additionally, since the literature on migrants relies heavily on Berry's (1997, 2005) acculturation theory, host- and co-national interactions may be indirectly captured as indicators of acculturation strategies (also excluded from this review; e.g., Ryder, Alden, & Paulhus, 2000; Ryder, Alden, Paulhus, & Dere, 2013). Even though studies using such indicators could potentially add to our knowledge on culture learning processes in migrants, their theory-based goals are different and the observation that the culture learning aspect of adaptation is understudied in this area remains valid.

The expatriate literature maintains the focus on the antecedents of adaptation predicted by the Black and colleagues' (1991) model. Cultural distance/novelty, one of the two non-work factors of this model, is the most frequently studied expatriate antecedent among those covered by this review. However, fewer studies report on social interaction as an antecedent of adjustment, possibly because it is not included as a predictor in this model. Together with stressors, the social interaction variable group is the least studied group of adjustment antecedents. This may be surprising given that the model includes interaction adjustment (or "adjustment to interacting with host nationals"; Black et al., 1991, p. 304) as one of the three facets of cross-cultural adjustment, and it would seem that the amount of actual interaction with host nationals should at least be controlled when predicting this facet. Overall, it appears that the expatriate literature recognizes the importance of culture learning for expatriate adjustment but pays less attention to social learning as one of the aspects of this process.

Stress and Coping-Related Correlates: Social Support and Stressors

Whereas stress and coping-related variables are satisfactorily covered in student and migrant literature, the expatriate literature shows a striking lack of balance. Stressors (including perceived discrimination) are hardly present in this area, which is in line with the lack of interest in psychological adaptation, but social support is not underrepresented. This might suggest that, despite the lack of interest in psychological adaptation, there is some concern about stress and coping processes in this area. However, a closer look reveals that in this group, effects of organizational support are studied rather than effects of general social support or family support, which points to the practical focus of expatriate research. Numerous authors declare openly that their studies are destined to help companies increase the success rate of overseas assignments, which may explain their interest in in-house factors, and their lack of interest in variables that organizations have less, if any, influence on.

Besides pragmatic motives, the choice of independent variables in research on expatriate employees seems to be determined by the target population. Although sampling procedures do not always allow it, most authors assume that their sample is composed of organizational expatriates, which usually implicates a managerial position and high social status. The predominance of the OEs directs research toward factors that are not generalizable to other settings. For example, a great deal is known about the role of the organization's relocation support in expatriate adaptation; it is known as well that only OEs are entitled to receive it (Andresen et al., 2014). Hence, this factor is probably irrelevant to some other groups, such as SIEs, which suggests that other sources of support need to be investigated.

A second implication of the focus on OEs consists of neglecting factors that are arguably irrelevant for this group, such as non-work stressors and perceived discrimination. This latter

factor is strongly associated with adaptation in other groups (Wilson et al., 2013), and its absence in the expatriate literature is problematic for at least two reasons. First, OEs may not be entirely protected from discrimination by their high social status, as objective status does not guarantee higher status in local contexts (Anderson, Kraus, Galinsky & Keltner, 2012). Second, discrimination may be highly relevant for other types of work expatriation. While organizational expatriation accounts for about one third of the overall international work mobility (Cerdin & Selmer, 2014), the remaining two thirds of expatriate workers probably have to find and maintain a job abroad on their own. If this is the case, they are very likely exposed to discrimination and prejudice, at least occasionally, and these variables may be just as relevant in this group as they were shown to be in others (Wilson et al., 2013). Therefore, discrimination should be examined by studies on work adaptation in both OEs and SIEs. We claim that expatriate research would benefit from extending the theoretical bases of their studies to cover the stress and coping aspects of adaptation, and from going beyond the assumptions derived from the focus on organizational expatriation.

Family-Related Correlates

The role of family in cross-cultural adaptation is often studied in expatriates, more rarely in first-generation migrants, and is understudied in students. In expatriates, this is perhaps an echo of meta-analytic findings pointing at family adjustment as a critical antecedent of adaptation (Hechanova et al., 2003; Bhaskar-Shrinivas et al., 2005). Not surprisingly, family factors are even more often studied in expatriate families, and studies in this latter area recur more often to matched samples and offer a more in-depth analysis of the family functioning. This may reflect a growing awareness that if the spouse or the family accompanies the expatriate,

cross-cultural adaptation turns to a dyadic (van Erp, Giebels, van der Zee, & van Duijn, 2011a), or maybe even a group process.

While the expatriate literature demonstrates the importance of family-related factors, the literature on first-generation migrants shows rather moderate interest in investigating in-depth their relation to cross-cultural adaptation. Although present in this research area, family factors are limited to demographic information about family composition in 10 out of 22 studies reporting them, and only few studies provide a more thorough analysis of their role (6, 62, 152, 141). Cross-cultural adjustment of family members, even though likely to be as important for migrant adaptation as it has been shown to be for expatriates, is not found in this literature. It is perhaps the lack of permeability between the two fields that should be blamed for this omission. Note, however, that there are studies which examine family variables in relation to outcomes that our review does not cover (e.g., acculturation strategies, Sullivan et al., 2007; substance use, Martinez, 2006; Wong, Ameratunga, Garrett, Robinson, & Watson, 2008; academic achievement, Cheung & Llu, 2000) or in samples composed predominantly of second and further generation migrants (e.g., Berry, Phinney, Sam, & Vedder, 2006; Gonzales, Deardorff, Formoso, Barr, & Barrera, 2006).

Finally, the lack of interest in family-related factors in student research is not surprising given that the young age of the target population makes them less likely to be accompanied by their families while abroad, and more likely to be under the influence of other social groups. However, there is some evidence suggesting that examining family influences upon students may still be worthwhile. For instance, while one study (93) found a positive correlation between adaptation and family support in students, another study (41) showed that the greater the amount of maternal care received at home, the greater the adjustment difficulties of teenage students in

the host country. The family may, therefore, play a twofold role for international students: on the one hand it may facilitate adaptation by providing social support (see also Ward et al., 2010), and on the other hand hinder it by rendering students' functioning excessively dependent on their ties with family members who are temporarily out of reach. This possible double role is yet to be explored.

In sum, research on first-generation migrants, and maybe even on students could benefit from a more in-depth analysis of family-related variables that were shown to be relevant to adaptation in the expatriate literature.

Macro-level Antecedents of Cross-Cultural Adaptation

Because our coding process was data-driven, the current review only covers the contextual correlates of adaptation that we actually found in the literature. We would like to point, however, at one group of factors we did not find: macro-level factors such as ideologies and attitudes toward immigrants predominating in the host society, country-level immigration policies and other political context factors. Among all the studies we retrieved, only one (137) took account of the larger societal and political context and examined the well-being of Arab and Haitian immigrants in the USA before and after September 11, 2001 terrorist attacks.

This is an important gap, given that the critical role of such variables in the broadly defined acculturation process has been highlighted by several theoretical models (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002; Brown & Zagefka, 2011) and extensively documented. For instance, research has shown that predominating ideologies of the host national group, expectations regarding state immigration policies, attitudes toward cultural diversity, and preferences regarding the acculturation strategy of immigrants constitute a larger social and institutional context which determines the success or failure of a

culturally diverse society (Berry & Kalin, 1995; Kalin & Berry, 1996; Ward & Masgoret, 2006). A comparison of two countries, Canada (a nation that tends to support multicultural ideology and encourage immigrants to maintain their heritage culture) and France (a nation that tends to support assimilationist ideology and encourage immigrants to embrace the local culture), revealed that the relationship between immigrants' acculturation strategy and discrimination is shaped by the dominant group's ideologies (Berry & Sabatier, 2010). Abundant research examined host nationals' ideologies and acculturation preferences, both actual and perceived by immigrants, demonstrating that these are related to intergroup outcomes such as intergroup threat and prejudice (e.g., Piontkowski, Florack, Hoelker, & Obdrzalek, 2000; Zick, Wagner, van Dick, & Petzel, 2001; Zagefka & Brown, 2002; Rohmann, Piontkowski, & van Randenborgh, 2008; González, Sirlopú, & Kessler, 2010). Perceptions of prejudice are, in turn, known to be linked to adaptation outcomes (Wilson et al., 2013).

Therefore, research results clearly suggest that immigration-related policies, ideologies and attitudes predominating in the host society should affect cross-cultural adaptation, at least in migrants. Yet, none of the above-cited studies on this topic reported variables that could be considered as indicators of cross-cultural adaptation. It appears that despite the incontestable interest that the migrant literature has in the role of the larger societal context in acculturation, the impact of this context on individual-level adaptation outcomes remains unknown. Even less is known about its role for short-term sojourners, such as international students, expatriate employees and expatriate families. Do immigration-related policies and ideologies concern these groups at all? Do these policies and ideologies reflect a more general attitude of the dominant group toward foreigners, regardless of the goal of their stay in the host country, or do they target immigrants only? These questions remain, for now, without answer.

Limitations

This review's purpose was to identify the differences between the three literature fields on intercultural travelers regarding: 1. socio-cultural contextual factors studied as correlates of adaptation, and 2. conceptualizations and operationalizations of adaptation. Consequently, we excluded a number of other antecedents (individual differences, demographic variables, macro-level variables, etc.) and domain-specific outcomes (work outcomes, academic performance, socio-economic level achieved in the host culture, etc.). Also, because we were interested in the explicit and implicit assumptions carried by the research mainstream, this review does not take into account unpublished works.

Importantly, our review leaves out numerous studies with samples composed predominantly of second and further generation migrants (among them, the important study on migrant youth by Berry et al., 2006), studies on ethnic minorities that do not report the country of birth of their participants, and so on. By consequence, our findings are not representative to the literature on migrants as a whole, but only to the part that focuses on first-generation migrants and on indicators of adaptation. This is intentional because in case of second and further generations migrants, born and bred in the host society, it is difficult to say to what extent the notion of cross-cultural adaptation, closely associated with international transitions (e.g., Searle & Ward, 1990; Ward & Kennedy, 1999, Ward et al., 2001), is adequate.

It should also be noted that the variables of our interest were coded accordingly to how they are defined by the Ward and colleagues' theoretical framework (Searle & Ward, 1990; Ward et al., 2001). In some cases, this led to ignoring labels given by the authors of the reviewed studies. For example, because socio-cultural adaptation is defined in terms of culture learning and efficacy in achieving one's goals within the host culture, variables labelled as 'social

adjustment' but measuring social support were not coded as socio-cultural adaptation, but as social resources. Therefore, a careful reader may find some discrepancies between what the authors of the reviewed studies declaratively examined and what our review found. In these cases, please refer to the definitions provided in the introduction to this paper.

Furthermore, we did not examine the strength of correlations, as this is far beyond what a qualitative review could do. A meta-analysis could add substantially to our findings, given that in most cases the effects were inconsistent, and only quantification could reveal the actual relationships between different kinds of adaptation and predictors. Also, comparing the strength of these relationships in different populations could have important implications for research. For instance, if consistent differences in the predictive validities of independent variables were found across expatriate populations, then a simple integration of research across populations may not be warranted. In this case, future research would need to examine carefully potential moderators behind these inconsistencies. In contrast, if psychological and sociocultural dimensions of adaptations were found to relate similarly to the different independent variables, then future research could be able to treat these as alternative indicators of broader cultural adaptation.

There are, however, at least two major difficulties that such meta-analysis would need to overcome. First, due to very different operationalizations across studies, especially in the group of international students, a far more complex coding scheme would be required to obtain consistent variable categories. Second, we have shown that some variables are substantially underrepresented in research on specific populations, which makes a comparative analysis of their predictive validities difficult or impossible. For example, comparing the effects of discrimination in 15 studies on migrants with one study on expatriates would not be very

informative. More research is required first, and our review would achieve its goal if it gave an impulse for this research.

Implications for Research

In the current review, we have provided an overview of socio-cultural environment factors at stake in cross-cultural adaptation. Our analysis confirms that three specialized literature fields (on expatriates, migrants and international students) exist, and they are actually very distinct.

The differences between these works may reflect, to a certain extent, the profound differences between the three groups of intercultural travelers. However, when transferred to the field, these distinctions turn out to be rather academic. The operational criteria that underlie them are a function of goals that the authors intend to achieve. Distinguishing between two groups may implicate confusing one of them with a third one; we saw it with the example of SIEs, clearly delineated from the OEs, but often indistinguishable from migrants. Of course, delineating specific target groups is useful even if the criteria are not perfect, and there is no reason to merge the three adaptation literature fields. However, in many respects each of them would profit if they were more permeable. Comparing them allowed us to reveal the domains that research on each group tends to overlook, and to suggest some directions that future studies could take to increase this permeability.

Expatriate Research

We call for a broader approach to expatriate adaptation. While extensive evidence to support the Black and colleagues' model has been gathered since 1991, this review challenges expatriate research to complete the understanding of expatriate adaptation by reaching out for

other conceptualizations, variables and assessment instruments from the remaining two literature fields. For instance, expatriate research might gain from: (a) a more systematic examination of expatriate psychological adaptation and the stress and coping processes behind it, and (b) including non-work factors identified in studies on different populations. Meta-analytic findings from both expatriate (Hechanova et al., 2003; Bhaskar-Shrinivas et al., 2005) and other literature (Wilson et al., 2012) leave no doubt that non-work factors must not be ignored.

This does not necessarily mean giving up the practical focus of expatriate studies. Even from a pragmatic point of view, psychological adaptation is worth a closer examination for its well-documented links with socio-cultural outcomes. Although outside an organization's influence, non-work factors should also be examined because they still affect company goals by affecting expatriate adjustment. The knowledge of these factors will pay off for the companies; for example, correctly identifying the source of adaptation issues avoids unnecessary investments.

International Student Research

In contrast to the expatriate literature, a more defined focus would be recommended in research on international students. Among all the groups of cross-cultural travelers, international students constitute perhaps the most accessible population for research and may serve as a test bed for new cross-cultural concepts and models. Furthermore, this area of research employs a diversity of conceptualizations which makes work within this area difficult to compare and to consolidate (cf. Zhang & Goodson, 2011a), meaning that despite a great deal of research effort, it is difficult to tell what is actually known about international student adaptation.

One suggestion how to overcome this limitation may be found in the expatriate literature, which has shown that adaptation may be successfully linked to such occupational outcomes as

performance or withdrawal (Hechanova et al., 2003; Bhaskar-Shrinivas et al., 2005). These can be easily transposed to the study abroad context. Perhaps viewing adaptation as an element of a causal chain leading to success or failure in terms of broadly defined academic achievement could orient student research toward a common goal. Although this view should not become as dominant as it is in expatriate research, it could offer at least two benefits: first, a possibility to use comparative data that go beyond self-reports, and second, a potential to illustrate the importance of this research outside academia.

First-Generation Migrant Research

Research on first-generation migrants would benefit from including a more holistic view of migrants' adaptation outcomes. Although assessing adaptation in specific domains such as mental health or educational success is of incontestable merit, these domains may not reflect a person's overall functioning within the host country; therefore, theoretically-based measures of socio-cultural adaptation should be used more often in this field.

Furthermore, we call for a broader definition of the target population. While the reviewed studies focus on migrants who move from less- to more developed countries, recent statistics show high percentages of migration between countries with similar levels of economic development. For example, according to the Oxford Migration Observatory (Vargas-Silva, 2012), migrants moving between different EU countries accounted for 35% of the total migrant stock in the European Union in 2010, exceeding 70% in some countries. Such migrants may differ substantially from the conventional image of low-status migrants, especially in terms of the role played in their adaptation by key factors such as discrimination (they are more likely to have a higher social status) or instrumental social support (they are more likely to dispose of sufficient material resources of their own). They may, however, share some resemblance with the

SIEs population, recently identified in expatriate research. While these two populations are postulated to be distinct at a conceptual level, they overlap at an operational level, and it is debatable whether a strict delineation between them is necessary (see Ward et al., 2001), especially that the higher status migrants' work potential is perhaps worth exploring in a detail that requires a human resources management perspective. We argue that this migrant group is within the scope of both migrant and expatriate literature, and what is more, studying it from an integrated perspective could be a first step toward bridging the two research areas.

Research Designs

Last but not least, let us note that Church's (1982) call for more longitudinal designs and more control groups is not outdated. It is unfortunate that most of the current knowledge on the antecedents of cross-cultural adaptation is derived from cross-sectional studies. This means that despite the vast correlational findings, we actually know very little about causal factors and actual adaptation processes.

Besides a need for longitudinal research, there is also a vital need for a more systematic comparison of the various contexts of intercultural transitions. While researchers acknowledge the importance of the context by studying the different populations of intercultural travelers separately, less attention is paid to differentiating the various contexts within these populations. Yet, two experiences of studying or working abroad may be very different. The acculturation process unfolds within a complex ecological system including the family level, the institutional level (work, school) and the societal level (ideologies, policies, etc.; Ward & Geeraert, 2015), where a change in one component may result in a completely different pattern of contextual influences. Therefore, we join Ward and Geeraert's (2015) call for more comparative studies that would account for the different levels of the ecological context of acculturation.

Final Remarks

When juxtaposed the three literature fields analyzed here reveal their strengths, deficiencies, and most importantly a number of valuable inputs that each of them has to offer the remaining two. Some of the factors, concepts and operationalizations easily transfer from one field to another. Moreover, such a comparison may highlight outdated assumptions which are potentially responsible for limitations in research and, by consequence, for biased research questions and a biased knowledge of the adaptation process.

This paper calls for more permeability between the three literature fields in order to identify and fill existing gaps in research, and ultimately for a more complete image of the cross-cultural adaptation processes. This call does not deny the differences between the target groups discussed here; such differences exist and they cannot be ignored. However, even comparing the situation of different target groups requires some integration on several levels: conceptually, terminologically and in operationalization terms

Appendix A
Matrix of the reviewed studies

ID	Paper	Journal	Sample	From	In	Design	DVs			IVs			
							PA	ScA	CD	SI	SR	SS	FR[a]
1	Al-Sharideh & Goe (1998)	Research in Higher Education	students, n=226	Mixed	USA	Cross-sectional	X			X	X		X
2	Ali, Van der Zee & Sanders (2003)	Int. J.of Intercultural Relations	expatriate spouses, n=247	Mixed	Mixed	Cross-sectional	X	X			X	X	X
3	Alshammari (2012)	Int. J.of Business & Social Science	SIEs (academics), n=237	Mixed	Saudi Arabia	Cross-sectional		X					X
4	Anderzén & Arnetz (1997)	Work & Stress	OEs, n=69	Sweden	Mixed	Longitudinal, control group	X				X	X	X
5	Aryee & Stone (1996)	Int. J.of Human Resource Management	workers, n=184	Mixed (mostly Western)	Hong Kong	Cross-sectional	X	X			X		X
6	Ataca & Berry (2002)	Int. J.of Psychology	migrants, n=200	Turkey	Canada	Cross-sectional	X	X	X	X	X	X	X
7	Aycan & Berry (1996)	Canadian J.of Behavioural Science	migrants, n=110	Turkey	Canada	Cross-sectional	X	X				X	
8	Bakker, Van Oudenhoven, & Van der Zee (2004)	European J.of Personality	migrants, n=847	the Netherlands	Western	Cross-sectional	X			X			
9	Barry & Grilo (2003)	American J.of Orthopsychiatry	migrants, n=170	East Asia	USA	Cross-sectional	X					X	
10	Bektas, Demir, & Bowden (2009)	Int. J.for the Advancement of Counseling	students, n=124	Turkey	USA	Cross-sectional	X				X		
11	Birman, Simon, Chan, & Tran (2014)	American J.of Community Psychology	migrants, n=391	Former Soviet Union	USA	Cross-sectional	X	X			X	X	X
12	Black (1988)	J.of Int. Business Studies	workers, n=67	USA	Japan	Cross-sectional		X		X			X
13	Black (1990)	Asia-Pacific J.of Management	OEs, n=220	USA	Asia	Cross-sectional		X	X	X	X		

14	Black & Stephens (1989)	J.of Management	expatriates and spouses, n=220	USA	Asia	Cross-sectional, multiple data sources		X	X				X
15	Briones, Verkuyten, Cosano, & Tabernero (2012)	Int. J.of Psychology	migrants (children and adolescents), n=240.197	Ecuador, Morocco	Spain	Cross-sectional	X					X	
16	Brisset, Safdar, Lewis, & Sabatier (2010)	Int. J.of Intercultural Relations	students, n=112	Vietnam	France	Cross-sectional, control group	X	X			X		
17	Caligiuri, Hyland, & Joshi (1998)	J.of Applied Psychology	workers, n=110	Mixed (mostly Western)	Mixed	Cross-sectional, coded interviews		X					X
18	Caligiuri, Joshi, & Lazarova (1999)	Int. J.of Human Resource Management	workers, n=38	USA	Mixed (mostly Western or highly developed)	Cross-sectional, coded interviews					X	X	X
19	Cemalcilar, Falbo, & Stapleton (2005)	Int. J.of Intercultural Relations	students, n=280	Mixed	USA	Cross-sectional	X	X		X	X		
20	Cetinkaya-Yildiz, Cakir, & Kondakci (2011)	Int. J.of Intercultural Relations	students, n=334	Mixed	Turkey	Cross-sectional	X			X			
21	Chapdelaine & Alexitch (2004)	J.of College Student Development	students, n=156	Mixed (mostly non-Western)	Canada	Cross-sectional		X		X			X
22	Chen (2010)	Int. J.of Human Resource Management	workers, n=219	Taiwan	Mixed (mostly China)	Cross-sectional		X			X		
23	Chen, Benet-Martinez, & Harris Bond (2008)	J.of Personality	23a. Study 1: migrants, n=67	China	Hong Kong	Cross-sectional	X					X	
			23b. Study 2: workers, n=153	Philippines	Hong Kong	Cross-sectional	X					X	

24	Chen, Kirkman, Kim, Farh, & Tangirala (2010)	Academy of Management Journal	OEs, n=556	Mixed	Mixed	Cross-sectional (external data from 2 years used)		X	X	X		X
25	Chen, Mallinckrodt, & Mobley (2002)	Asian J.of Counselling	students, n=52	East Asia	USA	Cross-sectional	X			X	X	
26	Chiu, Wu, Zhuang, & Hsu (2009)	Int. J.of Human Resource Management	OEs, n=171	Taiwan	China	Cross-sectional		X		X		
27	Chou (2012)	J.of Affective Disorders	migrants, n=449	Mainland China	Hong Kong	Longitudinal	X			X	X	X
28	Clement, Noels & Denault (2001)	J.of Social Issues	migrants, n=92	East India	Canada	Cross-sectional	X				X	
29	Cole (2011)	Int. J.of Human Resource Management	expatriate spouses, n=238	Mixed (mostly Western)	Mixed (mostly Asia)	Cross-sectional		X		X		X
30	Constantine, Okazaki & Utsey (2004)	American J.of Orthopsychiatry	students, n=320	Non-Western	USA	Cross-sectional	X				X	
31	Copeland & Norell (2002)	Int. J.of Intercultural Relations	expatriate spouses, n=194	Mixed (mostly Western)	Mixed (mostly Europe)	Cross-sectional	X			X	X	X
32	Cross (1995)	J.of Cross-Cultural Psychology	students, n=79	Asia	USA	Cross-sectional, control group	X			X		
33	Dao, Lee & Chang, 2007	College Student Journal	students, n=112	Taiwan	USA	Cross-sectional	X	X		X		
34	De Cieri, Dowling, & Taylor (1991)	Int. J.of Human Resource Management	expatriate spouses, n=56	Mixed (mostly Western)	Mixed (mostly Western)	Longitudinal (retrospective reports used)	X		X	X		X
35	Duru & Poyrazli (2011)	Int. J.of Psychology	students, n=229	Turkey	USA	Cross-sectional	X			X	X	
36	Fassaert, De Wit, Tuinebreijer, Knipscheer, Verhoeff, Beekman, & Dekker (2011)	Int. J.of Social Psychiatry	migrants, n=321	Morocco, Turkey	the Netherlands	Longitudinal, control group, subsamples	X				X	X

37	Firth, Kirkman, & Kim (2014)	Academy of Management Journal	OEs, n=70	Mixed (mostly Western)	USA, Australia, Canada, UK	Longitudinal	X	X				X	
38	Frey & Roysircar (2006)	J.of Multicultural Counseling & Development	students, n=110	South Asia/East Asia	USA	Cross-sectional		X				X	
39	Fritz, Chin, & DeMarinis (2008)	Int. J.of Intercultural Relations	students, n=100	European/Asian	USA	Cross-sectional, control group	X					X	
40	Froese & Peltokorpi (2013)	Int. J.of Human Resource Management	OEs & SIEs, n=181	Mixed (mostly Western)	Japan	Cross-sectional		X					X
41	Furukawa & Shibayama (1993)	Social Psychiatry & Psychiatric Epidemiology	students, n=188	Japan	Mixed	Longitudinal	X			X	X		X
42	Furukawa, Sarason & Sarason (1998)	Int. J.of Social Psychiatry	students, n=277	Japan	Mixed	Longitudinal	X			X	X		
43	Galchenko & van de Vijver (2007)	Int. J.of Intercultural Relations	students, n=168	Mixed	Moscow	Cross-sectional	X	X	X		X		
44	Gao & Gudykunst (1990)	Int. J.of Intercultural Relations	students, n=121	Mixed	USA	Cross-sectional	X		X	X			
45	Gaudet, Clement, & Deuzeman (2005)	Int. J.of Psychology	migrants, n=100	Lebanon	Canada	Cross-sectional	X					X	
46	Geeraert, Demoulin & Demes (2013)	Int. J.of Intercultural Relations	students, n=162	Belgium	Mixed	Longitudinal	X			X	X		
47	Ghaffari & Çiftçi (2010)	J.for the Psychology of Religion	migrants, n=174	Muslim countries	USA	Cross-sectional	X					X	
48	Gong (2003)	Int. J.of Intercultural Relations	students, n=85	Mixed	USA	Cross-sectional		X	X	X			X
49	Gong & Fan (2006)	J.of Applied Psychology	students, n=153	Mixed	USA	Longitudinal, multiple data sources		X			X		
50	Grant-Vallone & Ensher (2001)	Int. J.of Intercultural Relations	SIEs, n=118	Mixed (mostly European)	Switzerland	Cross-sectional	X				X		X

51	Grinstein & Wathieu (2012)	Int. J.of Research in Marketing	Mixed , n=260	Mixed	USA	Cross-sectional	X	X					X
52	Gupta, Dasgupta & Chakrabarty (2014)	Int. J.of Physical & Social Sciences	workers, n=48	European	India	Cross-sectional	X						X
53	Hechanova-Alampay, Beehr, Christiansen & Van Horn (2002)	School Psychology Int.	students, n=106	Mixed	USA	Longitudinal, control group	X	X	X	X	X		
54	Hendrickson, Rosen & Aune (2010)	Int. J.of Intercultural Relations	students, n=84	Mixed	USA	Cross-sectional	X			X	X		
55	Herleman, Britt & Hashima (2008)	Int. J.of Intercultural Relations	expatriate spouses, n=104	Mixed	USA	Cross-sectional	X	X			X	X	
56	Hovey (2000)	Cultural Diversity & Ethnic Minority Psychology	migrants, n=114	Mexico	USA	Cross-sectional	X				X	X	X
57	Hovey & King (1996)	J.of the American Academy of Child & Adolescent Psychiatry	migrants (children and adolescents), n=70	Latin America	USA	Cross-sectional	X	X				X	X
58	Huff, Song, & Gresch (2014)	Int. J.of Intercultural Relations	workers, n=152	Mixed	Japan	Cross-sectional		X	X				
59	Hwang, Wang, & Sodanine (2011)	Social Behavior & Personality	students, n=215	Mixed	Taiwan	Cross-sectional	X				X	X	
60	Jackson, Ray, & Bybell (2013)	J.of Int. Students	students, n=70	Mixed	USA	Cross-sectional	X	X			X	X	
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	J.of Community & Applied Social Psychology	migrants, n=3595	Russian/Estonian/Somali/ Arab/Albanian/Vietnamese	Finland	Cross-sectional, subsamples	X					X	
62	Jasinskaya-Lahti & Liebkind (2001)	Int. J.of Psychology	migrants (children and adolescents), n=170	Russia	Finland	Cross-sectional, control group	X			X		X	X

63	Jasinskaya-Lahti, Liebkind, Jaakkola, & Reuter (2006)	J.of Cross-Cultural Psychology	migrants, n=2359	Russia/Estonia/Ethnic Finns	Finland	Cross-sectional, subsamples	X			X	X	X	
64	Jasperse, Ward, & Jose (2012)	Applied Psychology: An Int. Review	migrants, n=153	Muslim countries	New Zealand	Cross-sectional	X					X	
65	Jenkins & Mockaitis (2010)	Int. J.of Human Resource Management	OEs, n=46	Mixed (mostly New Zealand)	Mixed	Cross-sectional		X	X				X
66	Ji & Duan (2006)	Asian J.of Counselling	migrants, n=177	Korea	USA	Cross-sectional	X	X				X	X
67	Jibeen & Khalid (2010)	Int. J.of Intercultural Relations	migrants, n=308	Pakistan	Canada	Cross-sectional	X				X	X	X
68	Johnson et al. (2003)	Int. J.of Selection & Assessment	OEs, n=75	Mixed (mostly European)	Mixed	Longitudinal		X		X	X		
69	Jung, Hecht, & Wadsworth (2007)	Int. J.of Intercultural Relations	students, n=218	Mixed (mostly Asian)	USA	Cross-sectional	X					X	
70	Kaduvettoor-Davidson & Inman (2013)	Asian American J.of Psychology	migrants, n=101	South Asia	USA	Cross-sectional, subsamples	X					X	
71	Kagan & Cohen (1990)	Psychological Science	students, n=92	Mixed	USA	Cross-sectional, control group		X		X	X		X
72	Kashima & Abu-Rayya (2014)	J.of Cross-Cultural Psychology	migrants, n=5033	Asian	Australia	Longitudinal	X		X			X	X
73	Kashima & Loh (2006)	Int. J.of Intercultural Relations	students, n=100	Asia	Australia	Cross-sectional	X	X		X			
74	Kawai & Strange (2014)	Int. J.of Human Resource Management	OEs, n=118	Japan	Germany	Cross-sectional		X			X		
75	Khawaja & Dempsey (2008)	Australian J.of Guidance & Counselling	students, n=86	Mixed	Australia	Cross-sectional, control group	X	X			X		
76	Kim & McKay-Semmler (2013)	Int. J.of Intercultural Relations	migrants, n=51	Mixed	USA	Cross-sectional, coded	X	X		X	X		

						interviews							
77	Kim & Slocum (2008)	J.of World Business	OEs, n=88	Korea	USA	Cross-sectional		X					X
78	Kline & Liu (2005)	Int. J.of Intercultural Relations	students, n=99	China	USA	Cross-sectional	X	X		X	X		
79	Kraimer & Wayne (2004)	J.of Management	OEs, n=230	USA	Mixed	Cross-sectional, multiple data sources		X	X		X		
80	Kraimer, Wayne, & Jaworski (2001)	Personnel Psychology	OEs, n=213	USA	Mixed	Cross-sectional, multiple data sources	X	X	X		X		X
81	Krieger, Kosheleva, Waterman, Chen, & Koenen (2011)	American J.of Public Health	migrants, n=275	Mixed (mostly Caribbean)	USA	Cross-sectional, subsamples	X					X	
82	Lam (2007)	American J.of Orthopsychiatry	students, n=122	Vietnam	USA	Cross-sectional	X					X	
83	Lee & Ciftci (2014)	Int. J.of Intercultural Relations	students, n=330	Asia	USA	Cross-sectional		X			X		
84	Lee & Sukoco (2008)	Social Behavior & Personality	OEs, n=218	Taiwan	Mixed	Cross-sectional		X			X		
85	Lee & Sukoco (2010)	Int. J.of Human Resource Management	OEs, n=218	Taiwan	Mixed	Cross-sectional		X					X
86	Lee, Koeske, & Sales (2004)	Int. J.of Intercultural Relations	students, n=74	Korea	USA	Cross-sectional	X	X			X	X	X
87	Lee, Lee & Jang (2011)	Cyberpsychology, Behavior, & Social Networking	students, n=166	China	South Korea	Cross-sectional	X	X		X			
88	Lee, Park & Kim (2009)	College Student Journal	students, n=76	Korea	USA	Cross-sectional		X		X			
89	Leong (2007)	Int. J.of Intercultural Relations	students, n=166	Singapore	Mixed (mostly Western)	Longitudinal, control group	X	X				X	

90	Leong & Ward (2000)	Int. J.of Intercultural Relations	students, n=106	Mainland China	Singapore	Cross-sectional	X		X	X	X	X	
91	Leung (2001)	Int. J.of Psychology	students, n=121	Asia, China	Australia	Cross-sectional, subsamples, control group	X				X		
92	Li & Gasser (2005)	Int. J.of Intercultural Relations	students, n=117	Asia	USA	Cross-sectional		X		X			
93	Lian & Tsang (2010)	Educational Research Journal	students, n=218	China	Hong Kong	Cross-sectional	X	X			X		X
94	Liebkind & Jasinskaya-Lahti (2000)	J.of Community & Applied Social Psychology	migrants, n=974	Russia, Ingrian Fins, Estonia, Arab, Vietnam, Turkey, Somalia	Finland	Cross-sectional	X					X	
95	Liebkind, Jasinskaja-Lahti & Solheim (2004)	J.of Adolescent Research	migrants (children and adolescents), n=175	Vietnam	Finland	Cross-sectional, control group	X	X				X	X
96	Lin (2008)	Int. J.of Intercultural Relations	96a. students, n=186	China	New Zealand,	Cross-sectional, subsamples	X				X	X	X
			96b. students, n=263	Mainland China	Singapore	Cross-sectional, subsamples	X				X	X	X
97	Lin, Peng, Kim, Kim, & LaRose (2011)	New Media & Society	students, n=195		USA	Cross-sectional	X	X		X			
98	Liu & Shaffer (2005)	Int. J.of Cross Cultural Management	workers, n=147	Mixed (mostly Western)	China	Cross-sectional		X	X	X	X		
99	Mak & Nesdale (2001)	J.of Applied Social Psychology	migrants, n=372	China	Australia	Cross-sectional	X			X		X	
100	Martinez Garcia, Garcia Ramirez & Maya Jariego (2002)	Int. J.of Intercultural Relations	migrants, n=105	Peru, Morocco	Spain	Cross-sectional, subsamples,	X			X	X		

						control group						
101	Masgoret (2006)	Int. J.of Intercultural Relations	students, n=127	Great Britain	Spain	Longitudinal		X	X	X		
102	McGinley (2008)	J.of Social, Evolutionary, & Cultural Psychology	workers, n=110	Mixed (mostly Western)	Russia	Cross-sectional		X		X	X	X	
103	Mesch, Turjeman, & Fishman (2008)	J.of Youth & Adolescence	migrants (children and adolescents), n=1420	Former Soviet Union	Israel	Longitudinal	X					X	X
104	Miller, Kim, & Benet-Martínez (2011)	Psychological Assessment	104a. Study 1: migrants, n=471	Asia	USA	Cross-sectional	X					X	
			104b. Study 2: students, n=259	Asia	USA	Cross-sectional	X					X	
105	Misra, Crist, & Burant (2003)	Int. J.of Stress Management	students, n=143	Mixed (mostly non-Western)	USA	Cross-sectional	X			X		X	
106	Miyamoto & Kuhlman (2001)	Int. J.of Intercultural Relations	students (children and adolescents), n=240	Japan	USA	Cross-sectional	X				X		X
107	Mohr & Klein (2004)	Int. J.of Human Resource Management	expatriate spouses, n=43	USA	Germany	Cross-sectional		X	X	X			X
108	Nakash, Nagar, Shosani, Zubida, & Harper (2012)	Cultural Diversity & Ethnic Minority Psychology	migrants (children and adolescents), n=125	Mixed	Israel	Cross-sectional, control group	X					X	
109	Neto & Barros (2000)	Social Behavior & Personality	migrants (children and adolescents),	Portugal	Switzerland	Cross-sectional, control group	X	X			X	X	

			n=95									
110	Ng, Tsang, & Lian (2013)	Asia Pacific Education Review	students, n=212	Mainland China	Hong Kong	Cross-sectional	X	X			X		
111	Niehoff & Maciocha (2008)	Irish J.of Management	workers, n=74	Mixed	Ireland	Cross-sectional, subsamples		X				X	X
112	Nilsson, Butler, Shouse, & Joshi (2008)	J.of College Counseling	students, n=76	Asia	USA	Cross-sectional		X				X	
113	Noh & Kaspar (2003)	American J.of Public Health	migrants, n=180	Korean	Canada	Cross-sectional	X					X	
114	Oh (2011)	Development & Society	migrants, n=310	Korea	USA	Cross-sectional	X					X	X
115	Olaniran (1993)	Communication Research Reports	students, n=102	Mixed	USA	Cross-sectional		X		X	X		
116	Ong & Ward (2005), Study 2	J.of Cross-Cultural Psychology	mixed, n=426	Mixed	Singapore	Cross-sectional	X				X		
117	Oppedal (2011)	Int. J.of Developmental Science	migrants (children and adolescents), n=645	Turkey, Somalia, Vietnam, Sri Lanka	Norway	Cross-sectional, subsamples	X				X	X	X
118	Osman-Gani & Rockstuhl (2009)	Int. J.of Intercultural Relations	OEs, n=169	Japan, USA, Germany, Singapore	Singapore, Asia	Cross-sectional, subsamples		X				X	X
119	Palthe (2004)	Int. J.of Intercultural Relations	OEs, n=196	USA	Mixed (Japan, South Korea, the Netherlands)	Cross-sectional		X	X		X		X
120	Pan (2011)	Int. J.of Intercultural Relations	students, n=400	Mainland China	Hong Kong	Cross-sectional	X					X	
121	Pan, Wong, Joubert & Chan (2008)	J.of American College Health	students, n=606	Mainland China	Hong Kong, Australia	Cross-sectional, subsamples	X		X		X	X	

122	Pantelidou & Craig (2006)	Social Psychiatry & Psychiatric Epidemiology	students, n=133	Greece	Great Britain	Cross-sectional	X			X	X		X
123	Park & Rubin (2012)	Int. J.of Intercultural Relations	migrants, n=516	Korea	USA	Cross-sectional	X	X				X	
124	Pedersen, Neighbors, Larimer, & Lee (2011)	Int. J.of Intercultural Relations	students, n=248	USA	Mixed	Longitudinal (retrospective reports)	X			X			
125	Peltokorpi (2008)	Int. J.of Human Resource Management	OEs & SIEs, n=110	Mixed	Japan	Cross-sectional		X	X				
126	Perrucci & Hu (1995)	Research in Higher Education	students, n=428	Mixed	USA	Cross-sectional	X			X	X	X	X
127	Pinto, Cabral-Cardoso & Werther (2012)	Int. J.of Intercultural Relations	OEs, n=166	Mixed	Mixed	Cross-sectional	X	X					X
128	Podsiadlowski, Vauclair, Spiess & Stroppa (2013)	Int. J.of Psychology	workers, n=124	Mixed	Mixed	Longitudinal (entirely based on retrospective reports)	X				X		
129	Polanco-Roman & Miranda (2013)	Behavior Therapy	students, n=143	Mixed	USA	Longitudinal	X					X	
130	Polek & Schoon (2008)	J.of Comparative Family Studies	migrants, n=244	Poland	Netherlands	Cross-sectional, subsamples	X					X	
131	Polek, Wöhrle & van Oudenhoven (2010)	Cross-Cultural Research	migrants, n=792	Poland, Germany, Hungary, Russia	The Netherlands	Cross-sectional, subsamples	X				X	X	X
132	Poyrazli & Kavanaugh (2006)	College Student Journal	students, n=149	Asia	USA	Cross-sectional	X	X	X				X
133	Poyrazli, Arbona, Bullington, & Pisecco (2001)	College Student Journal	students, n=79	Turkey	USA	Cross-sectional	X						X
134	Rahman & Rollock (2004)	J.of Multicultural Counseling & Development	students, n=199	Bangladesh, India, Pakistan	USA	Cross-sectional	X					X	

135	Rienties & Tempelaar (2013)	Int. J.of Intercultural Relations	students, n=1375	Mixed (mostly Western)	Holland	Cross-sectional	X	X			X		
136	Rosenbush & Cseh (2012)	Human Resource Development Int.	workers, n=111 (family members in qualitative analyzes)	Not specified	USA	Cross-sectional, multiple data sources		X					X
137	Rousseau, Hassan, Moreau, & Thombs (2011)	American J.of Public Health	migrants, n=1065	Haiti, Arab countries	Canada	Cross-sectional (two measurements, different samples)	X					X	
138	Safdar, Calvez & Lewis (2012)	Int. J.of Intercultural Relations	migrants, n=282	Russia, India	Canada	Cross-sectional	X	X			X	X	X
139	Safdar, Lay & Struthers (2003)	Applied Psychology: An Int. Review	migrants, n=166	Iran	Canada	Cross-sectional	X	X			X	X	X
140	Sam (2001)	Social Indicators Research	students, n=304	Mixed (mostly Western)	Norway	Cross-sectional, subsamples	X	X			X	X	
141	Sam & Berry (1995)	Sc&inavian J.of Psychology	migrants (children and adolescents), n=568	Developing countries	Norway	Cross-sectional	X			X			X
142	Schaafsma (2011)	European J.of Social Psychology	migrants, n=320	Turkey, Morocco	The Netherlands	Cross-sectional	X					X	
143	Schmitt, Spears & Branscombe (2002)	European J.of Social Psychology	students, n=99	Mixed (mostly non-Western)	USA	Cross-sectional	X					X	
144	Searle & Ward (1990)	Int. J.of Intercultural Relations	students, n=105	Malaysia, Singapore	New Zealand	Cross-sectional	X	X	X	X	X	X	
145	Selmer (2002)	J.of Business Research	OEs, n=213	Western, ethnic Chinese	China	Cross-sectional, subsamples	X	X	X				

146	Selmer (2006)	Int. J.of Human Resource Management	OEs, n=165	Western	China	Cross-sectional		X	X				
147	Selmer & Lauring (2009)	Int. J.of Intercultural Relations	SIEs (academics), n=428	European, Non-european	Europe	Cross-sectional, subsamples		X	X				
148	Shaffer & Harrison (1998)	Personnel Psychology	OEs, n=452	USA	Mixed	Cross-sectional, multiple data sources		X	X				X
149	Shaffer & Harrison (2001)	J.of Applied Psychology	expatriates and spouses, n=221	Mixed	Mixed	Cross-sectional, multiple data sources		X	X	X	X	X	X
150	Shupe (2007)	J.of Cross-Cultural Psychology	students, n=206	Mixed	USA	Cross-sectional	X	X	X			X	
151	Sirin et al. (2013)	J.of Applied Developmental Psychology	migrants (children and adolescents), n=286	Mixed	USA	Longitudinal	X				X	X	
152	Slonim-Nevo, Mirsky, Rubinstein, & Nauck (2009)	J.of Family Issues	migrants (families), n=941	Former Soviet Union	Germany, Israel	Longitudinal, subsamples	X					X	X
153	Sonderegger & Barrett (2004)	J.of Child & Family Studies	migrants (children and adolescents), n=273	China	Australia	Cross-sectional, subsamples	X				X		
154	Stahl & Caligiuri (2005)	J.of Applied Psychology	OEs, n=116	Germany	Japan and USA	Cross-sectional		X	X			X	
155	Stefanek, Strohmeier, Fandrem, & Spiel (2012)	Anxiety, Stress, & Coping	migrants (children and adolescents), n=120	Mixed	Austria	Cross-sectional, subsamples	X					X	
156	Sümer, Poyrazli, & Grahame (2008)	J.of Counseling & Development	students, n=440	Mixed	USA	Cross-sectional	X			X	X		

157	Swagler & Ellis (2003)	J.of Counseling Psychology	students, n=126	Taiwan	USA	Cross-sectional	X			X		
158	Swami (2009)	Int. J.of Psychology	students, n=191	Malaysia	Great Britain	Cross-sectional, subsamples		X	X		X	X
159	Swami, Arteche, Chamorro-Premuzic, & Furnham (2010)	Social Psychiatry & Psychiatric Epidemiology	students, n=249	Malaysia	Great Britain	Cross-sectional, subsamples	X	X	X		X	X
160	Takeuchi, Lepak, Marinova & Yun (2007)	J.of Int. Business Studies	expatriates and spouses, n=170/170	Japan	USA	Cross-sectional, subsamples		X	X				X
161	Takeuchi, Yun, & Russel (2002)	Int. J.of Human Resource Management	OEs, n=170	Japan	USA	Cross-sectional, multiple data sources		X	X			
162	Takeuchi, Yun, & Tesluk (2002)	J.of Applied Psychology	OEs and spouses, n=215	Japan	USA	Cross-sectional, multiple data sources		X				X
163	Terry, Pelly, & Lalonde (2006)	Group processes & Intergroup Relations	students, n=113	Asia	Australia	Longitudinal	X	X			X	X
164	Tonsing (2013)	Int. J.of Intercultural Relations	migrants, n=229/218	Pakistan, Nepal	Hong Kong	Cross-sectional, subsamples	X				X	X
165	Torres, Driscoll, & Voell (2012)	Cultural Diversity & Ethnic Minority Psychology	migrants, n=669	Latin America	USA	Cross-sectional	X					X
166	Toyokawa & Toyokawa (2002)	Int. J.of Intercultural Relations	students, n=84	Japan	USA	Cross-sectional	X			X	X	
167	Trice (2004)	J.of College Student Development	students, n=497		USA	Cross-sectional		X		X		X
168	Tsang (2001)	Int. J.of Intercultural Relations	students, workers (academics), n=301	Mainland China	Singapore	Cross-sectional, subsamples		X		X	X	

169	Tummala-Narra & Claudius (2013)	Cultural Diversity & Ethnic Minority Psychology	migrants (children and adolescents), n=103	Mixed	USA	Cross-sectional	X				X	X	
170	Upvall (1990)	Western J.of Nursing Research	students, n=101	Asia	USA	Cross-sectional	X			X			
171	Uskul & Greengrass (2005)	Anxiety, Stress, & Coping	migrants, n=181	Turkey	Canada	Cross-sectional	X						X
172	Usunier (1998)	Int. Business Review	workers, n=109	USA	France	Cross-sectional	X						X
173	Van der Bank & Rothman (2006)	Management Dynamics	OEs, n=95	South Africa	Mixed	Cross-sectional					X	X	X
174	Van Der Zee, Ali & Haaksma (2007)	Anxiety, Stress, & Coping	expatriate children, n=104	Mixed (mostly European)	Mixed	Cross-sectional	X	X			X		X
175	Van der Zee, Ali & Salome (2005)	European J.of Work & Organizational Psychology	expatriates and spouses, n=144	Mixed (mostly Western)	Mixed (mostly the Netherlands)	Cross-sectional, subsamples	X				X	X	X
176	Van Erp, Giebels, Van der Zee, Van Duijn (2011a)	Personal Relationships	expatriates and spouses, n=210	the Netherlands	Mixed	Cross-sectional	X						X
177	Van Erp, Giebels, Van der Zee, Van Duijn (2011b)	Anxiety, Stress, & Coping	expatriates and spouses, n=90	the Netherlands	Mixed	Longitudinal, multiple data sources	X						X
178	Van Erp, Van der Zee, Giebels, & Van Duijn (2013)	European J.of Work & Organizational Psychology	expatriates and spouses, n=196	the Netherlands	Mixed	Longitudinal, multiple data sources	X	X	X				X
179	Van Oudenhoven & Van der Zee (2002)	Int. J.of Intercultural Relations	students, n=61	Mixed	The Netherlands	Longitudinal	X				X	X	
180	Van Oudenhoven, Mol & van der Zee (2003)	Asian J.of Social Psychology	expatriates, n=102	Mixed (mostly Western)	Taiwan	Cross-sectional	X				X		
181	Van Vianen, De Pater, Kristof-Brown, & Johnson (2004).	Academy of Management Journal	OEs, n=208	Mixed	Mixed	Longitudinal		X	X				X

182	Verkuyten & Nekuee (1999)	Social Indicators Research	migrants, n=67	Iran	The Netherlands	Cross-sectional	X					X	
183	Wang & Kanungo (2004)	Int. J.of Human Resource Management	workers, n=166	Mixed (mostly Western)	China	Cross-sectional	X			X	X		
184	Wang & Nayir (2006)	J.of Int. Management	workers, n=130	European	China, Turkey	Cross-sectional, subsamples	X			X	X		X
185	Wang & Takeuchi (2007)	J.of Applied Psychology	OEs, n=183	Mixed (mostly Western)	China	Cross-sectional (posterior external data used)		X			X	X	X
186	Wang, Heppner, Fu, Zhao, Li, & Chuang (2012)	J.of Counseling Psychology	students, n=507	China	USA	Longitudinal	X				X	X	
187	Ward & Kennedy (1992)	Int. J.of Intercultural Relations	Mixed , n=84	New Zealand	Singapore	Cross-sectional	X	X	X	X		X	X
188	Ward & Kennedy (1993a)	Int. J.of Psychology	students, n=178	New Zealand	Mixed	Cross-sectional	X	X	X	X	X	X	
189	Ward & Kennedy (1993b)	J.of Cross-Cultural Psychology	189a. Study 1: students, n=145	Malaysia, Singapore	New Zealand	Cross-sectional	X	X	X	X	X	X	
			189b. Study 2: students, n=156	Malaysia	Singapore	Cross-sectional	X	X	X	X	X	X	
190	Ward & Rana-Deuba (2000)	Int. J.of Intercultural Relations	workers (aid workers), n=104	Mixed (mostly Western)	Nepal	Cross-sectional	X			X	X		
191	Ward & Searle (1991)	students	students, n=155	New Zealand		Cross-sectional	X	X	X	X	X		
192	Ward, Stuart, & Kus (2011)	J.of Personality Assessment	192a. Study 2: migrants, n=462	China	New Zealand	Cross-sectional	X		X				
			192b. Study 3: migrants, n=304	Mixed	New Zealand	Cross-sectional	X					X	
193	Waxin (2004)	Int. J.of Intercultural	OEs, n=224	Mixed (mostly Western)	India	Cross-sectional,		X			X		X

		Relations				subsamples						
194	Wei et al. (2008)	J.of Counseling Psychology	students, n=354	Asia	USA	Cross-sectional	X				X	
195	Wei et al. (2012)	J.of Counseling Psychology	students, n=143	East Asia	USA	Cross-sectional	X			X	X	
196	Wei, Wang, Heppner, & Du (2012)	J.of Counseling Psychology	students, n=383	China	USA	Cross-sectional	X			X	X	
197	Wu & Ang (2011)	Int. J.of Human Resource Management	OEs, n=169	Mixed (mostly Western)	Singapore	Cross-sectional		X	X	X		
198	Wu & Mak (2012)	Counseling Psychologist	students, n=180	Mainland China	Hong Kong	Longitudinal	X	X			X	
199	Yakunina, Weigold, Weigold, Hercegovac, & Elsayed (2013)	J.of Counseling & Development	students, n=336	Mixed (mostly non-Western)	USA	Cross-sectional	X				X	
200	Yang & Clum (1994)	Suicide & Life-Threatening Behavior	students, n=101	Asia	USA	Cross-sectional	X			X	X	
201	Yang & Clum (1995)	J.of Psychopathology & Behavioral Assessment	students, n=101	Asia	USA	Cross-sectional	X			X	X	
202	Yang, Noels, & Saumure (2006)	Int. J.of Intercultural Relations	students, n=81	Collectivist cultures	Canada	Cross-sectional, control group	X	X		X	X	
203	Ye (2005)	Cyberpsychology & Behavior	students, n=115	East Asia	USA	Cross-sectional	X	X			X	
204	Ye (2006)	J.of Computer-Mediated Communication	students, n=135	China	USA	Cross-sectional	X	X		X		
205	Ying (1995)	American J.of Community Psychology	migrants, n=143	China	USA	Cross-sectional	X			X		X
206	Ying (2005)	Int. J.of Intercultural Relations	students, n=216	Taiwan	USA	Longitudinal	X		X	X		

207	Ying & Han (2006)	Int. J.of Intercultural Relations	students, n=155	Taiwan	USA	Longitudinal	X			X		X	
208	Ying & Han (2008)	College Student Journal	students, n=155	Taiwan	USA	Longitudinal	X			X		X	
209	Ying & Liese (1991)	Int. J.of Intercultural Relations	students, n=171	Taiwan	USA	Longitudinal	X			X	X	X	
210	Yip, Gee, & Takeuchi (2008)	Developmental Psychology	migrants, n=2047	Asia	USA	Cross-sectional, subsamples	X					X	X
211	Yoon, Hacker, Hewitt, Abrams, & Cleary (2012)	J.of Counseling Psychology	students, n=273	Asia	USA	Cross-sectional	X	X			X	X	
212	Yoon, Lee, & Goh (2008)	Cultural Diversity & Ethnic Minority Psychology	migrants, n=188	Korea	USA	Cross-sectional	X	X			X		
213	Yu & Shen (2012)	Int. J.of Intercultural Relations	students, n=198	China	Australia	Cross-sectional		X					X
214	Zhang & Goodson (2011)	Int. J.of Intercultural Relations	students, n=508	China	USA	Cross-sectional	X	X			X		
215	Zhang, Smith, Swisher, Fu, & Fogarty (2011)	J.of Comparative Family Studies	expatriate spouses, n=40	China	USA	Cross-sectional	X					X	X
216	Zimmermann (1995)	Communication Education	students, n=101	Mixed	USA	Cross-sectional	X	X		X			
217	Zlobina, Basabe, Paez & Furnham (2006)	Int. J.of Intercultural Relations	migrants, n=518	Mixed	Spain	Cross-sectional, subsamples		X	X		X	X	

Note: [a] PA – psychological adaptation, SA – socio-cultural adaptation, CD – cultural distance/novelty, SR – social resources, SI – social interaction, SS – social stressors, FR – family-related factors.

[b] Expatriate employees are classified as: 'expatriates' – when sampling strategy is likely to include both OEs and SIEs; 'OEs' – when sampling strategy maximizes the probability that the sample consists of OEs; OEs/SIEs – when criteria are applied to delineate OEs and SIEs; SIEs – when criteria are applied to include exclusively SIEs.

Chapter 3.

Social-Contextual Antecedents of Cross-Cultural Adaptation: A Meta-Analysis 1988-2014

This chapter was submitted as:

Bierwiaczonek, K., Waldzus, S., van der Zee, K.I. & Vauclair, C.M. (*under review*). Social-Contextual Antecedents of Cross-Cultural Adaptation: A Meta-Analysis 1988-2014.

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Abstract

Two approaches to cross-cultural adaptation may be distinguished: (1) universalistic, assuming that adaptation is underpinned by the same processes in all contexts, and (2) group-centered, focusing on specific contexts determined by the type of population that is adapting. While the former approach is well-grounded in adaptation theory, the latter has dominated adaptation research. However, the actual relevance of the group-specific context is yet unknown. We meta-analyze research on socio-contextual antecedents of adaptation in four groups of intercultural travelers: expatriate employees, expatriate families, international students and migrants. Our findings support the existence of universal adaptation processes regarding culture learning, stress and coping by showing that related factors (cultural distance, social interaction, social resources and social stressors) indeed affect adaptation in all these populations. Further, the findings point to the vital role of social adaptation contexts and suggest the existence of understudied moderators that might be as relevant as group membership (i.e., the characteristics of the host culture and the type of group sojourners interact with). We indicate several paths that future adaptation research should follow.

Keywords: cross-cultural adaptation, contextual antecedents, expatriates, expatriate families, first-generation migrants, international students

We live in a world of open frontiers, and the upsides and downsides of fading away of borders are part of the day-to-day experience of members in modern societies. Never in history have there been so many people moving from one country to another to live, study or work.

Immigrants and sojourners face the challenge of adapting to an unfamiliar culture, and whether they succeed or not is of great importance not only for them, but also for society. Societal relevance is obvious, realizing that entire economy sectors are built on international exchange that includes manpower. The success of this manpower exchange is largely dependent on foreign employees' adjustment to living abroad. Research among expatriates has shown that successful adjustment is reflected in higher work performance as well as lower turnover (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Hechanova, Beehr, & Christiansen, 2003). In a similar way, research among immigrants in a work context suggests that successful adaptation contributes to relevant work outcomes (e.g., van der Zee & Sandal, 2017). Unsuccessful integration of immigrants and sojourners is also important for another reason. Discontent of cultural minorities with their lives in the host country may be dangerous, which is exemplified by recent phenomena of radicalization of ethnic minorities in European countries which have tragic consequences (see Hafez & Mullins, 2015). In this context, it seems more vital than ever to understand what factors determine the success or failure of the adaptation process.

Cross-cultural adaptation is thought to be a universal phenomenon for all those who experience an intercultural transition (Ward, Bochner & Furnham, 2001). However, this phenomenon may occur differently in different socio-cultural contexts, and a systematic investigation of contextual influences on adaptation is missing (Ward, Fox, Wilson, Stuart & Kus, 2010; Doucerain, Dere & Ryder, 2013; Bierwiaczonek & Waldzus, 2016, Chapter 2 of this

thesis). Research tends to rely on one way of taking context into consideration: it targets clearly defined adapting populations (e.g., international students, expatriate employees, migrants) and examines them separately within distinct research areas (Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis). The underlying assumption seems to be that membership in one of these groups comes with a group-specific adaptation context. In this sense, the group-specific context of cross-cultural transition is acknowledged by research, and possibly even overestimated. The differences between groups are seen as self-evident, and although they surely exist, there is virtually no empirical evidence indicating how deep they actually are. On the other hand, it is unknown what other characteristics of adaptation context, besides group membership, are of relevance.

The purpose of the present paper is to meta-analyze the effects of social-contextual factors on cross-cultural adaptation of four adapting populations: expatriate employees, their families, international students and first-generation migrants. Based on Ward and colleagues' model of cross-cultural adaptation (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001), we distinguish four groups of social and cultural contextual correlates of adaptation and we attempt to establish whether they indeed play a different role for each of these populations. We also test several contextual moderators, such as the destination of the international move, with the aim at identifying the most relevant ones.

Adaptation in Theory: The Universalistic Approach

While there are several models of cross-cultural adaptation, they all seem to share the key assumption that, regardless of the specific context, being immersed in an unfamiliar culture imposes some adaptive modifications on an individual. This universalistic approach to cross-

cultural adaptation is best exemplified by Ward and colleagues' approach to adaptation as a bi-dimensional phenomenon (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001). The authors assume that socio-cultural and psychological adaptation are common to all adapting populations and acquired in universal processes occurring at a behavioral and psychological level.

Socio-cultural adaptation

Socio-cultural adaptation refers to the behavioral domain and to the efficacy in achieving one's everyday goals in the new culture. It is acquired via culture learning, a process in which the newcomer learns culture specific skills, norms and so on. Two aspects of culture learning may be distinguished: social learning and learning generalization (Wilson, Ward & Fischer, 2013).

Social learning, as part of the culture learning process, refers to learning the host culture directly from its members (Searle & Ward, 1990; Ward et al., 2001; Wilson et al., 2013). In particular, contact with host culture members provides the foreigner with social learning opportunities. Both the quantity and quality of contact seem to be relevant (Ward, 2004; Wilson et al., 2013). The second aspect of culture learning is learning generalization (Wilson et al., 2013). This process is dependent upon the extent to which the new culture differs from an individual's native culture (i.e., cultural distance). The greater the difference, the lower the likelihood that behaviors learned within the home culture will be efficient within the host culture. Consequently, greater cultural distance makes culture learning more challenging because less of the previous cultural knowledge and skills apply to the new context.

The notion of socio-cultural adaptation covers more specific facets proposed by other authors, such as general adjustment (i.e., adjustment to general living conditions; Black,

Mendenhall, & Oddou, 1991), interaction adjustment (i.e., adjustment to social interaction with locals; Black, Mendenhall, & Oddou, 1991), work adjustment (or more broadly, occupational adjustment; Black, Mendenhall, & Oddou, 1991, Aycan, 1997), and economic adjustment (Aycan & Berry, 1996). All these facets refer to behavioral aspects of social functioning within the new culture and are largely influenced by the culture learning process. As such, they fit the socio-cultural dimension. Some authors, however, see occupational adjustment as a third dimension of adaptation besides the psychological and socio-cultural dimension (cf., Aycan, 1997; Kealy & Ruben, 1983), and some argue that occupational outcomes such as work/academic performance or turnover, should be viewed as outcomes of psychological and socio-cultural adaptation (e.g.,; see also Bhaskar-Shrinivas et al., 2005; Hechanova et al., 2003).

Psychological adaptation

The second dimension of cross-cultural adaptation, psychological adaptation, refers to one's well-being within the new culture and reflects the outcome of coping with the stress of intercultural transition. As in any coping process, the outcome depends on the presence of stressors on the one hand, and of coping resources on the other (Lazarus & Folkman, 1984; Ward et al., 2001). In part, stressors faced by intercultural travelers are specific to the process of acculturation (i.e., acculturative stressors; e.g., prejudice from locals, language barriers; Berry, Kim, Minde, & Mok, 1987). In addition, stressors may be more generally linked to stressful life situations (e.g., life changes, occupational stressors, etc.).

The resources adapting individuals have to cope with both kinds of stressors may be either individual (e.g., stress-buffering personality traits of emotional stability and flexibility, Van der Zee & van Oudenhoven, 2013) or social. Resources of the latter kind are part of the socio-cultural context of adaptation and refer to social interactions. One prominent example is

social support, the most extensively studied social resource across the different adapting populations (Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis).

In sum, both dimensions of adaptation and the underlying processes are thought to be universal and universally affected by specific social-contextual factors. The amount of social interaction and the magnitude of cultural distance are assumed to be relevant for culture learning processes and should affect socio-cultural adaptation in all adapting populations. Stressors and coping resources coming from the foreigner's social environment are assumed to be relevant for stress and coping processes and should affect psychological adaptation in all adapting populations. Moreover, some variables may be expected to influence both dimensions. For instance, besides undermining learning generalization, cultural distance may also be a source of stress for the foreigner, and therefore affect both socio-cultural and psychological adaptation (Ward & Searle, 1991). Also, more social interaction may translate into more social support with beneficial effects at the psychological and socio-cultural level.

Decades of research seem to have confirmed that variables related to cultural distance, social interaction, stressors and coping resources may indeed predict adaptation outcomes. Yet, the evidence remains scattered because these factors have been investigated within distinct research areas typically focusing on only one adapting population.

Research Practice: A Group-Centered Approach

Even though the two dimensions of adaptation and the processes behind them (i.e., culture learning and coping) are regarded as universal across the adapting populations, the factors that affect them may differ as a function of the goal of the move, of who is moving, to what country, and in what circumstances. For example, perceiving the host society as

discriminating women in the work context may affect the adaptation process in the case of a female expatriate employee, and remain irrelevant for a male expatriate employee or for a female international student who does not work.

Research generally attempts to account for such differences by studying specific adapting populations which are distinguished by the motive of intercultural transition and assumed length of stay in the host country: international students, expatriate employees and migrants (Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis). International students and expatriate employees have an occupational motive (study or work) and their sojourn is assumed to be temporary, while migrants are motivated by a number of pull- and push-factors, such as seeking better life conditions, and their sojourn abroad is assumed to be permanent.

A part of social-contextual influences on the adaptation process may indeed arise from group-specific transition motives and only apply to specific adapting populations. In this sense, a group-centered approach in research is surely useful. However, such approach cannot account for nor identify contextual influences unrelated to group specificity, and there seems to be little interest in overcoming this limitation. Researchers specialized in specific populations seem to be guided by untested assumptions about these populations and about the importance of specific factors in their lives. This results in focusing on some variables and overlooking others. For example, there is virtually no research on the role of work-related context for migrants or on the role of discrimination for expatriates (Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis).

Finally, such specialization makes it impossible to know what is universal about cross-cultural adaptation and what is group- or context-specific because the different populations are not compared. Previous literature reviews have not provided more insights as they followed the general research trend and tended to focus on one adapting population without juxtaposing it

with others. Our aim in this study is to overcome this limitation by including and comparing all the main adapting populations.

Social-Contextual Antecedents of Adaptation. What Do We Know from Previous Reviews

As far as we are aware, three meta-analyses including social-contextual factors as predictors of cross-cultural adaptation have been conducted to date, two of them in the expatriate area (Bhaskar-Shrinivas et al., 2005; Hechanova et al., 2003). These two studies were based on the Black and colleagues' (1991) model of expatriate adjustment, focused exclusively on the expatriate population and considered general, interaction and work adjustment as outcomes. The third meta-analytic review by Wilson and colleagues (2013) covered mostly research on international students (57% of included studies), but also some other samples (e.g., migrants), and examined predictors of socio-cultural adaptation as measured by the Socio-Cultural Adaptation Scale (SCAS, Ward & Kennedy, 1999).

None of the three meta-analyses of cross-cultural adaptation considered the psychological dimension as an outcome. The psychological dimension has been indirectly taken into account by meta-analytical studies on intergroup relations. These studies included works on adapting populations such as migrants and international students, but investigated them together with studies on other minorities (e.g., ethnic, LGBT, etc.). For example, Schmitt and colleagues (Schmitt, Branscombe, Postmes, & Garcia, 2014) meta-analyzed the effects of perceived discrimination on well-being which is considered to be an indicator of psychological adaptation in adaptation research .

Culture learning-related antecedents of socio-cultural adaptation

The above-listed meta-analyses provide some insights into the role of contextual factors for adaptation. In regard to factors relevant for culture learning, Hechanova and colleagues (2003) found that the frequency of interaction with host nationals was related to socio-cultural adaptation (r = .53 for interaction adjustment, r = .22 for general adjustment, and r = .26 for work adjustment). A weaker effect was found for co-national interaction (respectively, r = .07, r = .05, and r = .18; Hechanova et al., 2003). Bhaskar-Shrinivas and colleagues (2005) reported host-national interaction under the label of relational skills (covering frequency of interaction, number of ties with host nationals, time spent interacting with host nationals) and found correlations of comparable strength (ρ =.53 for interaction adjustment, ρ =.32 for general adjustment, and ρ = .15 for work adjustment). Wilson and colleagues (2013) also report a stronger effect for host-national interaction (r = .29) than for co-national interaction (r = .14).

Moreover, a negative correlation varying in strength was found for cultural distance (ρ = -.35 for general adjustment, ρ = -.19 for interaction adjustment, and ρ = -.12 for work adjustment as per Bhaskar-Shrinivas et al, 2005; respectively r = -.08, r = -.18, and r = -.06 as per Hechanova et al., 2003; r = -.33 for SCAS as per Wilson et al., 2013). Finally, Wilson and colleagues (2013) reported a weak positive correlation (r = .16) between socio-cultural adaptation and length of residence, that is, exposure to the host culture enabling the foreigner to learn about it.

Overall, there is evidence that socio-cultural adaptation (a) requires exposure to interaction with host-nationals and their culture rather than with co-nationals, and (b) is more difficult if the host and the home culture are distant from each other. This seems to apply to a similar extent to both expatriates and international students.

Stress-related antecedents of cross-cultural adaptation

With exception of company-based sources of support, factors related to psychological adaptation are not in the focus of the expatriate literature (Bierwiaczonek and Waldzus, 2016). Congruent with that, the two meta-analyses from the expatriate area reported only two variables directly related to stress and coping: coworker support ($\rho = .22$ for interaction adjustment and work adjustment, $\rho = .11$ for general adjustment) and company logistical support ($\rho = .16$, $\rho = .12$, $\rho = .07$, respectively; Bhaskar-Shrinivas et al., 2005). Although the significant positive effects found for these factors suggest a facilitating role of social support, at least for interaction adjustment, these results are work-specific and may not be representative of non-work social resources.

In regard to social stressors, two studies pointed to a disruptive role of perceived discrimination for socio-cultural adaptation ($r = -.50$ as per Wilson et al., 2013) and well-being ($r = -.23$ in correlational studies as per Schmitt et al., 2014). Note, however, that the latter study included, besides adapting populations, also ethnic, sexual and other stigmatized minorities. In sum, the role of stress-related factors in cross-cultural adaptation is only partly shown by previous reviews and calls for a more detailed investigation.

Conclusions from previous reviews

Previous meta-analyses confirmed the theoretical assumption that factors related to culture learning on the one hand (host national interaction, cultural distance; Hechanova et al., 2003, Bhaskar-Shrinivas et al., 2005; Wilson et al., 2013), and to stress and coping on the other hand (perceived discrimination as a social stressor, Wilson et al., 2013, Schmitt et al., 2014; support as a social resource, Bhaskar-Shrinivas et al., 2005) are relevant to cross-cultural adaptation. Moreover, stress-related antecedents such as perceived discrimination were shown to

influence both psychological (Schmitt et al., 2014) and socio-cultural (Wilson et al., 2013) adaptation, showing that both dimensions are interrelated. Yet, although the meta-analytic evidence is strong, it remains rather fragmentary given the limited number of examined social-contextual factors, the omission of psychological adaptation in most of the relevant meta-analyses, the fragmentary coverage of stress-related factors and the focus on specific adapting groups.

The universal nature of the main processes behind adaptation remains an untested assumption in light of such a scattered evidence. For instance, it is unknown to what extent findings from specific groups, such as expatriates, are generalizable. Interestingly, when a variable was reported for more than one population (e.g., host- and co-national interaction, cultural distance), the effect sizes were similar across the different meta-analyses. This may suggest that the role of group-specific adaptation context may be seriously overestimated. To verify this idea, however, a more systematic comparison of effect sizes coming from the different groups of intercultural travelers is necessary. The current study aims at providing it.

Overview of the Current Study

The present meta-analysis is, to our knowledge, the first to juxtapose and compare research on four adapting populations: expatriate employees, expatriate families, international students and migrants. Because such comparison requires a comprehensive theoretical framework, the study was guided by the approach by Ward and colleagues (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001). The two main advantages of this approach are: (a) its compatibility with other adaptation models (see Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis, for a discussion), which enables us to compare works based on different

theoretical frameworks, and (b) the fact that it takes into account the psychological dimension (i.e., well-being), absent in alternative approaches such as Black and colleagues' (1991) model. Thus, Ward and colleagues' framework allows for a more complete and more inclusive review of cross-cultural adaptation outcomes than other more specific approaches.

The current study consists of a series of meta-analyses of social-contextual variables related to either one of the hypothetical processes underpinning cross-cultural adaptation: stress and coping (psychological adaptation) or culture learning (socio-cultural adaptation). Because we assumed that both processes, as well as their adaptive outcomes, are interrelated, our prediction was that all examined factors should predict either dimension of adaptation, although with different strength. More specifically, host national interaction and culture distance will affect socio-cultural adaptation positively and negatively respectively, and to a lesser extent also psychological adaptation. Less stressors and more social resources will enhance psychological adaptation, and to a lesser extent also socio-cultural adaptation.

A second assumption of this study was that culture learning and stress and coping processes are universal for all adapting populations. By consequence, we did not expect significant differences between the populations, except for variables directly related to the motive of their international transition. For example, while overall social support should affect all populations equally, organizational support is probably more extensive for expatriate managers than for international students, hence the former group should experience more beneficial effects of such support.

Methods

Inclusion Criteria

The present meta-analysis includes quantitative studies published between 1988 and 2014 that report at least one measure of socio-cultural or psychological adaptation, and at least one correlate of cross-cultural adaptation representing the characteristics of a foreigner's socio-cultural environment or his/her interaction with this environment. Moreover, several unpublished studies received by the authors of the current paper in 2015 were included. The lower time limit corresponds with Black's 1988 publication which was the first to adopt a contemporary approach to cross-cultural adaptation in the area of expatriate research, followed by the early works by Ward and colleagues (Searle & Ward, 1990; Ward & Searle, 1991; Ward & Kennedy, 1992, 1993a, b) in other areas. While earlier studies of cross-cultural adaptation exist, their theoretical and methodological approaches (e.g., the 'culture shock' framework) are different from contemporary adaptation research, and therefore difficult to compare with more recent studies.

We defined our target population as consisting of individuals in cross-cultural transitions with duration of at least several months. This definition covers expatriate employees, expatriate families, international students and first-generation migrants, and it excludes tourists, repatriates, and second or further generation immigrants[5]. An exception was made for migrant studies in which at least ~50% of the participants were first generation. In fact, the lowest percentage of first-generation migrants in an included study was 46.

We only included studies that reported correlation coefficients (*r*) or provided sufficient statistical information for the estimation of the effect size. Studies reporting measures of adaptation and social-contextual variables without associating them were excluded.

[5] While we consider highly questionable the usage of the term 'migrant' to describe people with migration background dating back more than one generation, we opted for keeping this term in the present paper for the sake of congruency with previous literature.

Search Procedures

The literature search was conducted in three steps. First, a search was performed using the EBSCO host in the following databases: Academic Search Complete, Business Source Complete, Education Source, ERIC, Teacher Reference Center, Hospitality & Tourism Complete, PsycARTICLES, PsycINFO, Psychology and Behavioral Sciences Collection, and SocINDEX with Full Text. The search terms we used were: 'expatriates', 'international students', 'expatriate spouses', ‘migrants’, ‘immigrants’, 'cross-cultural adaptation', 'socio-cultural adaptation', 'psychological adaptation', 'cross-cultural adjustment', 'socio-cultural adjustment', ‘psychological adjustment’. Moreover, unspecific terms referring to operationalizations of psychological adaptation (‘stress’, ‘distress’, ‘depression’, ‘well-being’, ‘self-esteem’, ‘satisfaction with life’) were used paired with specific terms (e.g., ‘expatriates AND well-being’).

Second, we screened the reference lists of previous systematic and meta-analytic reviews of literature (Hechanova et al., 2003; Bhaskar-Shrinivas et al., 2005; Zhang & Goodson, 2011a; Wilson et al., 2013, Schmitt et al., 2014) in search of relevant studies, and checked studies that were suggested as similar by the online services of scientific publishers (e.g., ScienceDirect). Finally, a call for unpublished papers was sent to several scientific associations, covering social and cross-cultural psychology, management and educational research, and to one research center specialized in a relevant disciplinary area (i.e., Center for Cross-Cultural Research, Victoria University of Wellington).

This procedure resulted in 432 retrieved studies, of which 231 failed to meet our inclusion criteria: 177 studies did not report variables of our interest, used operationalizations that did not fit our definitions, or did not provide sufficient statistical information to estimate

effect sizes corresponding with these variables; 26 studies were qualitative; 28 used migrant samples composed predominantly of second or further generation immigrants; four studies were considered to report the same effect as other included studies from their authors (based on effect size, sample size, sample description and sampling procedure). After a careful analysis, 213 studies were included in the current meta-analysis. This body of literature consisted of 200 studies published in 188 papers, and 13 unpublished studies (datasets, Master and PhD theses). Overall, the current meta-analysis counted 703 effect sizes[6] from 59,189 participants.

Data Extraction and Coding

Outcome variables. All variables of our interest were extracted from each study, registered together with the corresponding effect size (*r*) and classified into one of the categories used in the current meta-analysis. Outcome variables covered four categories: socio-cultural adaptation, psychological adaptation, domain-specific adaptation, and overall adaptation.

Socio-cultural Adaptation included measures of social difficulties experienced in the host society (e.g., Socio-Cultural Adaptation Scale; Ward & Kennedy, 1999) and measures of actual endorsement of the new culture. The latter measures were usually employed in studies on migrants based on the acculturation framework, but we considered them as informative of participants' degree of socio-cultural adaptation because they tapped into behavioral aspects that may be regarded as outcomes of culture learning (e.g., Behavior in Host Domain Scale, Galchenko & van de Vijver, 2007; sample item: "How often do you ask for help/advise of [local] students?"). We only included those measures that assessed participation in the host culture as a distinct score. Measures referring to the maintenance of heritage culture or combining both host- and heritage culture dimensions into a single score were not considered.

[6] This number corresponds with effect sizes used in our analyses, a part of which were averages of several effect sizes provided by one study but coded under the same predictor or outcome category (see the section "Calculation of Effect Sizes").

Domain-specific Adjustment included direct measures of work adjustment and academic adjustment. Other indicators of work or academic outcomes (e.g., performance, job satisfaction, withdrawal intentions, etc.) were dropped from the current meta-analysis. Previous meta-analytical studies (Bhaskar-Shrinivas et al., 2005; Hechanova et al., 2003) have already considered such variables, showing that they should be viewed as consequences of adaptation rather than its indicators.

Psychological Adaptation included positive (e.g., self-esteem, satisfaction with life, positive affect) and negative (e.g., depression, psychological distress, perceived stress) operationalizations typically used in adaptation research (as specified by Ward et al., 2001). We excluded pathological symptoms such as trauma, post-traumatic stress disorder, antisocial behavior, and other symptoms we considered to go beyond the usual concept of psychological adaptation.

Unspecific Adaptation Measures included those operationalizations that did not allow for determining whether the assessed construct referred to the psychological or socio-cultural dimension of adaptation (e.g., one-item measures of satisfaction with the sojourn abroad, measures with mixed items referring to both dimensions). Because studies using such operationalizations were not numerous enough to meta-analyze them separately, we could only use them in those of our analyses in which effects on socio-cultural, psychological and domain specific adaptation were collapsed and examined jointly. These joint analyses are reported in the Results section and Tables 1-3 under the label Overall Adaptation.

Predictor variables. To establish the categories of adaptation antecedents, we first extracted all the contextual correlates of adaptation (i.e., variables that did *not* represent inter-individual differences) and the corresponding assessment methods from the retrieved studies.

These were submitted to a qualitative analysis with the aim at identifying those that indeed represented the characteristics of foreigner's socio-cultural environment. Social-contextual variables retained in this procedure were then classified, using the content analysis approach (Smith, 2000; Schreier, 2013), into four categories: cultural distance, social interaction, social resources[7], and social stressors.

Although the categorization process was essentially data-driven (Schreier, 2013), the final categories were guided by the Ward and colleagues' (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001) model. We created four categories of predictors, each of them related to one of the four hypothetical processes behind adaptation, that is: (1) cultural distance (related to the learning generalizability aspect of culture learning), (2) social interaction (related to the social learning aspect of culture learning), (3) stressors (related to the stress arousal aspect of stress and coping), and (4) social resources (related to the coping aspect of stress and coping). Variables that did not fit into these categories (e.g., location size; Selmer, 2005) were dropped. To account for the great diversity of variables within each main category of predictors, several subcategories were distinguished.

Cultural distance included two subcategories: (a) self-rated distance, and (b) externally measured distance, that is, distance calculated based on external indicators of discrepancy between the home and the host country (e.g., Kogut and Singh's index, 1988).

[7] One may argue that social resources overlap with adaptation outcomes, for example loneliness and lack of social support may be seen as indicators of social difficulty, that is, of poor socio-cultural adaptation. Some studies even use measures of social support as indicators of social adjustment (e.g., van Oudenhoven, Mol & van der Zee, 2007; Coatsworth, Maldonado-Molina, Pantin, & Szapocznik, 2005). However, because social support is traditionally studied as a coping resource in the stress and coping literature, and support-related variables are typically used as predictors variables in cross-cultural adaptation literature (e.g., Ward & Rana Deuba, 2000; Ward & Searle, 2001; Leung, 2001a; Zhang & Goodson, 2011b; see also Ward & Kennedy, 1999, for a discussion of measurement of socio-cultural adaptation), this meta-analysis considers them as correlates, and not outcomes, of adaptation.

Social interaction included various indicators of quantity of social contact, divided into four subcategories: (a) frequency/quantity of contacts (e.g., number of friends, network size, frequency of interactions), (b) network composition (ratio of host-nationals to co-nationals in the social network), (c) ethnic density (i.e., number of co-nationals in the environment, e.g., in the same major, in town), and (d) participation in group activities (non-governmental organizations, charity, cultural events, etc.). Independently of these subcategories, we registered the type of interacting group (host-nationals, co-nationals, other nationals, unspecified) and contact mode (local interaction, distant interaction mediated by technology, e.g., telephone or internet, unspecified). These characteristics were initially intended to be used as moderators, but because most studies in the category reported more than one type of interacting group and more than one contact mode, such use would imply violating the assumption of sample independence. Therefore, we included these characteristics as additional subcategories.

Social resources referred to measures that focused on interaction quality rather than quantity. This category included four subcategories:

1. Quality of (satisfaction with) social interaction, also covering co-national connectedness[8] and social permeability (except for resources permeability which was coded as instrumental support),
2. Strength of friendship;
3. Social support, except for family support (covered in a different study)[9] and organizational support (considered as a distinct category). This subcategory covered

[8] Initially, we considered social connectedness as a separate subcategory, but high correlations of host-national connectedness with outcome variables indicated a common method bias. Therefore, measures of host-national connectedness were excluded from analysis.

[9] Family-related variables, such as family support, were extracted from the primary studies. Because these variables do not entirely fit the theoretical framework of the current meta-analysis, a decision was made not to include them in this paper. Previous research shows that whether the family plays a positive or a negative role in the adaptation process is highly dependent on family dynamics. Family members may facilitate adaptation by providing

measures of loneliness as lack of social support (reversed effect sizes), but because loneliness is sometimes operationalized in terms of affect and may be easily confounded with psychological adaptation outcomes, we only retained measures that either addressed this issue (e.g., affect-related items were reworded; Ward & Rana Deuba, 2000) or assessed the mere social isolation (e.g., "My social circles shrank after I came to the U.S.", "I have limited social life"; Pan, Wong, Joubert & Chan, 2008). Within this subcategory, we also distinguished between instrumental and socio-emotional support;

4. Organizational support, covering only institutional sources of support such as the university or the company.

Independently of these subcategories, we registered the type of the support-providing group (host-nationals, co-nationals, other nationals, peers, supervisors, organization, unspecified) and the mode via which support was obtained (support obtained locally, support from distant sources mediated by technology, that is, telephone or internet, unspecified).

Social stressors included: (a) occupational stressors (e.g., academic and work-related stressors, work overload), (b) perceived discrimination/prejudice/racism, (c) acculturative stressors (i.e., stressors directly related to living abroad such as language difficulties and composite scales of acculturative stress), (d) low social status (e.g., status difference from host-nationals and/or home country nationals; indicators such as income, work prestige, etc.); (e) general stressors (i.e., stressors not related directly to living abroad, such as life changes, negative life events, money issues, etc.). Note that this category included factors that were

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support (see Ward et al., 2010), by facilitating social interaction and culture learning, or even by compensating for one's deficits in adaptive personality traits (van Erp et al., 2013). However, family members may also hinder adaptation if they are not adapted themselves (Black & Stephens, 1989). Suspecting that the role of family-related variables goes beyond what can be captured as coping processes and culture learning processes, we decided to dedicate a distinct meta-analytical study to these factors.

potential sources of stress but *not* measures of experienced stress levels. The latter were coded as indicators of psychological adaptation.

Moderators. Additionally, several study characteristics were recorded with the goal to test them as moderators. These were: sample type (expatriate employees, expatriate families, international students, migrants, mixed), study design (longitudinal vs. cross-sectional), host country (Western vs. non-Western), percentage of males in the sample, average age of the sample, average length of sojourn. When a study only reported intervals of age and/or length of stay abroad in the sample, we estimated the approximate mean value by taking the middle value of each interval, weighting it by the percentage of sample that fell into this interval, and calculating the weighted mean for all the intervals.

In the case of longitudinal studies, the interval between each pair of measurements was recorded. We then compared interval lengths in all longitudinal studies and retained for analysis the effect sizes corresponding with measurements performed approximatively one year apart because this interval was available from most of these studies. Because there were some exceptions, this rule could not be applied to all longitudinal datasets and in some cases we took the interval that was the closest to one year. By consequence, between-measurements intervals in the current meta-analysis vary from 5 months to 24 months.

Host countries were coded as Western or non-Western based on Huntington's (1997) classification[10]. This classification was chosen because it covers all countries, while other classifications we are aware of (e.g., Hofstede's collectivistic vs. individualistic cultures) miss data for some locations. In the case of samples with mixed host countries, the coding was based on the ratio of respondents in Western countries to non-Western countries. Studies in which the

[10] According to Huntington (1997), Western countries are: United States and Canada, Australia and Oceania, Western and Central Europe (including Lithuania, Latvia and Estonia, but excluding the remaining former Soviet Union countries).

information about the host country was missing or the sample was highly heterogeneous in this regard (categorized as undefined) were set as system missing because the results for this category cannot be interpreted.

Second coding. In order to validate our coding, a second coder repeated the process for 22 randomly chosen studies (i.e., ~10% of all retained studies). Interrater agreement with the first coder was high (Cohen's $\kappa = .82$). The two coders met to discuss the cases in which they disagreed, and all discrepancies were resolved.

Calculation of Effect Sizes

The current meta-analysis used correlation coefficients (*r*). Whenever *r*s were not reported directly, they were estimated using Wilson's effect size calculator (Wilson, 2001) from means and standard deviations, standardized mean differences (*d*), *t*-test values and exact *p*-values, accompanied by the respective sample sizes. In the case of studies that only reported regression coefficients (β), approximate correlation values were calculated using Peterson & Brown's (2005) formula:

$$r = \beta + .05\lambda$$

where

$$\lambda = 0[\beta < 0]$$

$$\lambda = 1\ [\beta > 0].$$

Whenever a study reported multiple measures of adaptation antecedents or outcomes per (sub)category, one of the following strategies was followed: (a) we retained the effect size corresponding with the measure that better reflected a given theoretical concept (e.g., socio-cultural adaptation scale rather than acculturation-related measures), or (b) in cases when all measures were considered equivalently good operationalizations of the theoretical concept (e.g.,

social support from friends and social support from a significant other), a single composite effect size was calculated by averaging across the multiple effect sizes.

Analyses were conducted using Wilson's macros for SPSS (MeanES, MetaReg, MetaF; Wilson, 2008) based on Hedges and colleagues' (Hedges & Olkin, 1985; Hedges &Vevea, 1998) method. In this method, prior to the analysis each effect size is weighted by the inverse of its variance and converted into a standard normal metric using Fisher's *r* to *Z* transformation. Effect sizes are then re-converted back to *r* to facilitate interpretation. Results for random effects models are reported.

To maximize the use of data, the main analyses were first run for the main categories of adaptation antecedents with Overall Adaptation. In the second step, the analyses were run separately for each main category of adaptation antecedents with each adaptation outcome (psychological, socio-cultural and occupational adaptation), and in the third step, separately for each antecedent subcategory with each adaptation outcome. Moderation analyses were only carried out for the main categories of adaptation antecedents and for those subcategories in which the number of primary effect sizes was sufficient to test for moderation. In moderation analyses with categorical predictors (meta-ANOVA), whenever any of the included groups had a $k < 2$, this group was excluded from the analysis.

Results

Appendix B provides an overview of the meta-analyzed studies together with included effect sizes and study characteristics used as moderators. Tables 1-5 report selected results of main analyses and moderation analyses. The complete results for all subcategories can be found in the supplementary materials available upon request. We only report main analyses and meta-

regressions for predictor categories for which $k \geq 3$, and meta-ANOVAS for predictor categories with $k \geq 2$ in any of the included groups.

Main Analyses: Mean Effect Size and Homogeneity

Main analyses consisted of calculating mean effect sizes and evaluating their degree of homogeneity. As predicted, cultural distance and social stressors were correlated negatively, while social interaction and social resources were correlated positively to all dimensions of cross-cultural adaptation. For cultural distance, the correlation was only significant for self-rated distance, but not for distance measures based on external indicators (all *p*s > .11). Also, host national interaction facilitated all dimensions of adaptation, whereas co-national interaction did not (all *p*s > .70). A similar pattern was found for social resources, but only in the case of socio-cultural adaptation: resources from host nationals were significantly related to this dimension, while resources from co-nationals were not. Within the category of stressors, all subcategories were significant negative predictors of adaptation.

For most effect sizes, however, significant heterogeneity was found, suggesting the presence of moderators. The effect sizes of self-rated cultural distance, overall social interaction and host-national interaction on domain-specific adaptation, as well as the effect sizes of general stressors on psychological and socio-cultural adaptation, were homogenous across primary studies.

In regard to the magnitude of correlations, we did not detect any effect size that could be considered as large. The strongest correlations were found in the category of stressors: between perceived discrimination and socio-cultural adaptation ($r = -.41$, $p < .001$), between general stressors and socio-cultural adaptation ($r = -.37$, $p < .001$), and between acculturative stressors and psychological adaptation ($r = -.35$, $p < .001$).

Table 1.

Effect Sizes Based on the Random-Effects Model per Outcome and Antecedent Category.

	Studies (*k*)	Mean ES		-95%CI	+95%CI	SE	Q	
Cultural distance on Overall Adaptation								
Self-Rated Distance	48	-0.19	***	-0.23	-0.15	-8.48	187.60	***
Externally Measured Distance	10	-0.09		-0.21	0.02	-1.58	54.28	***
Cultural distance on Psychological Adaptation								
Self-Rated Distance	16	-0.10	**	-0.16	-0.03	-3.01	45.41	***
Externally Measured Distance	4	-0.07		-0.24	0.10	-0.82	12.16	**
Cultural Distance on Socio-Cultural Adaptation								
Self-Rated Distance	39	-0.26	***	-0.31	-0.20	-8.76	191.18	***
Externally Measured Distance	9	-0.09		-0.23	0.06	-1.17	41.36	***
Cultural Distance on Domain-Specific Adaptation								
Self-Rated Distance	13	-0.09	***	-0.14	-0.05	-3.97	20.38	
Externally Measured Distance	5	-0.07		-0.23	0.09	-0.85	16.45	**
Social Interaction on Overall Adaptation								
Overall Co-National Interaction	29	-.02		-.07	.03	.03	10.40	**
Overall Host National Interaction	49	.15	**	.11	.20	02	10.85	**
Social Interaction on Psychological Adaptation								
Overall Co-National Interaction	22	-0.01		-0.05	0.04	-0.27	61.02	***
Overall Host National Interaction	32	0.07	**	0.02	0.12	3.00	89.75	***
Social Interaction on Socio-Cultural Adaptation								
Overall Co-National Interaction	11	-0.02		-0.13	0.10	-0.25	52.27	***

Overall Host National Interaction	28	0.26 ***	0.20	0.32	8.70	84.78 ***
Social Interaction on Domain-Specific Adaptation						
Overall Social Interaction (all types and sources together)	10	.13 ***	0.07	0.19	4.17	11.30
Overall Host National Interaction	7	.14 **	0.05	0.22	3.25	10.09
Social Resources on Overall Adaptation						
Overall Resources (all types and all sources together)	116	.19 ***	0.16	0.21	13.30	489.82 ***
Overall Host-National Resources	41	.19 ***	0.14	0.24	7.94	174.61 ***
Overall Co-National Resources	32	.06 *	0.00	0.11	2.12	136.81 ***
Overall Distant Resources	15	.09	.02	.16	.04	7.48
Social Resources on Psychological Adaptation						
Overall Resources (all types and all sources together)	90	.19 ***	0.16	0.22	11.11	456.92 ***
Overall Host-National Resources	29	.12 ***	0.08	0.16	5.45	87.81 ***
Overall Co-National Resources	25	.08 ***	0.02	0.14	2.72	124.58 ***
Overall Distant Resources	11	.10 ***	0.00	0.19	2.01	77.05 ***
Overall Local Resources	52	.17 ***	0.13	0.21	8.38	215.09 ***
Social Resources on Socio-Cultural Adaptation						
Overall Resources (all types and all sources together)	53	.20 ***	0.15	0.24	8.95	208.37 ***
Overall Host-National Resources	22	.30 ***	0.22	0.38	7.52	114.35 ***
Overall Co-National Resources	14	.04	-0.06	0.14	0.78	62.77 ***
Overall Distant Resources	8	.13 **	0.05	0.21	3.27	17.13 *
Social Resources on Domain-Specific Adaptation						
Overall Resources (all types and all sources together)	16	.19 ***	0.14	0.25	6.93	44.46 ***
Stressors on Overall Adaptation						
Total Stressors (all types together)	140	-.26 ***	-0.28	-0.23	-18.63	891.77 ***
Occupational Stressors	10	-.21 ***	-0.29	-0.13	-4.93	27.53 **

Perceived Discrimination	83	-.25 ***	-0.29	-0.22	-15.24	489.33 ***
Acculturative Stressors	34	-.33 ***	-.38	-0.27	-12.33	165.11 ***
General Stressors	20	-.30 ***	-0.35	-0.26	-13.04	26.13
Low Social Status	38	-.15 ***	-0.10	-0.19	-6.65	171.43 ***
Stressors on Psychological Adaptation						
Total Stressors (all types together)	119	-.25 ***	-0.28	-0.22	-17.15	787.93 ***
Occupational Stressors	7	-.20 ***	-0.31	-0.09	-3.55	26.77 ***
Perceived Discrimination	70	-.22 ***	-0.25	-0.19	-13.63	368.05 ***
Acculturative Stressors	32	-.35 ***	-0.40	-0.30	-14.24	129.22 ***
General Stressors	17	-.31 ***	-0.36	-0.25	-11.33	23.65
Low Social Status	30	-.14 ***	-0.10	-0.18	-6.17	126.39 ***
Stressors on Socio-Cultural Adaptation						
Total Stressors (all types together)	42	-.29 ***	-0.35	-0.23	-9.57	238.11 ***
Perceived Discrimination	19	-.41 ***	-0.52	-0.30	-7.43	132.37 ***
Acculturative Stressors	7	-.27 *	-0.48	-0.06	-2.56	75.77 ***
General Stressors	5	-.37 ***	-0.47	-0.26	-7.08	8.89
Low Social Status	21	-.18 ***	-0.11	-0.25	-4.90	94.05 ***
Stressors on Domain-Specific Adaptation						
Total Stressors (all types together)	8	-.20 ***	-0.29	-0.11	-4.34	17.49 *
Perceived Discrimination	3	-.19 ***	-0.27	-0.10	-4.35	2.46
Low Social Status	3	-.25 *	-0.03	-0.47	-2.20	10.17 *

Note. Results are reported for the main antecedent categories and selected subcategories whenever $k > 3$, except for Domain Specific Adaptation where $k > 2$. Several analyses could not be conducted because of insufficient number of effect sizes, hence the number of analyses within one predictor category, as well as the type of analyzed predictor subcategories, may not be equivalent for all outcome variables. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

Moderation Analyses

In the second phase, we examined moderation effects. Meta-regressions were used for continuous moderators (i.e., percent of males in the sample, mean age of the sample, mean length of sojourn of the sample) and meta-ANOVAs for categorical moderators (i.e., type of adapting population, cross-sectional vs. longitudinal design, host country type).

Continuous moderators. Meta-regression analyses, conducted jointly for all continuous moderators, revealed several significant moderation effects (see Table 2). First, the average length of sojourn in the host country moderated the negative effect of self-rated cultural distance on both psychological and socio-cultural adaptation such that the longer the sojourn, the weaker the effect. Second, sample age moderated the positive effect of host national interaction on psychological adaptation; the older the sample, the weaker was the effect.

Third, the effect of co-national resources on psychological adaptation was moderated by the percentage of males in the sample (the more males, the stronger the effect), mean age (the older the sample, the weaker the effect), and mean length of sojourn in the host country (the longer the sojourn, the stronger the effect). In contrast to that, the relation between co-national resources and socio-cultural adaptation was only moderated by the percentage of males in the sample, and the pattern was reversed: the effect decreased as the percentage of males grew.

Fourth, the effect of host-national resources on socio-cultural adaptation was moderated by the length of sojourn such that the longer was the sojourn, the larger was the effect. Fifth, the overall effect of stressors on socio-cultural adaptation was found to decrease as the sample age grew. The remaining results were not significant (all ps > .05).

Categorical moderators. Meta-ANOVAs were conducted separately for each categorical moderator (see Table 3-5). First, we examined population type and found two

significant effects among the broad predictor categories: host national interaction only predicted positively overall adaptation and psychological adaptation in the group of international students, but not for expatriate employees and migrants (Table 3). Seven further significant effects were found in detailed analyses with predictor subcategories: frequency of contact with host-nationals was most beneficial for students' overall adaptation (r = .22 vs. .09 for expatriates and .08 for migrants) and psychological adaptation (r = .11, vs. -.19 for expatriates and .04 for migrants), co-national support was most beneficial for students' overall adaptation (r = .12, vs. -.04 for migrants, not enough studies for expatriates) and socio-cultural adaptation (r = .12 vs. -.05 for migrants, not enough studies for expatriates), overall social support was most beneficial for expatriates' domain-specific adaptation (r = .26 vs. .13 for students), organizational support was most beneficial for expatriates' psychological adaptation (r = .38 vs. .14 for students and .13 for expatriate families), and quality of contacts was most beneficial for psychological adaptation of expatriate families (r = .28 vs. .20 for expatriates and .13 for students) (see supplementary materials for more details). The remaining results were not significant (all ps > .05).

Because the interaction between sample type and host national interaction was similar to the moderating effect of sample age (the younger the sample, the stronger the correlation; student samples tend to be younger than migrants and expatriates), we conducted an additional analysis. Using population type as a dummy variable (1 – international students, 0 – other groups), we added it to the meta-regression with all continuous moderators. In this regression, the moderating effect of age disappeared (β = -.01, p = .16) while the moderating effect of population type held (β = .16, p < .01), suggesting that it is indeed the population type that moderates the relationship between host national interaction and psychological adaptation.

In the next step, the moderating role of study design was examined (Table 4). We found that co-national resources only had facilitating effects on psychological adaptation in cross-sectional studies; such an effect was not found in longitudinal studies. Because only two longitudinal studies were included in this analysis, this result should be interpreted with extreme caution. Further, the negative effect of overall stressors on overall adaptation was stronger in cross-sectional studies than in longitudinal studies, and more detailed analyses showed the same result for two stressor subcategories: acculturative stressors and low social status (see supplementary materials). Overall stressors also undermined socio-cultural adaptation in cross-sectional studies, but not in longitudinal studies. No other significant effects were found for this moderator (all ps > .05).

Finally, the type of host country was used as a categorical moderator, revealing four significant interaction effects for the broad predictor categories (Table 5). First, the negative effect of self-rated culture distance on domain-specific adaptation was only significant for the group moving to Western countries, but not for the group moving to non-Western countries. Second, host national interaction yielded a weak yet significant positive effect on psychological adaptation in samples that moved to Western countries, and weak yet significant negative effects in samples that moved to non-Western countries. A more detailed analysis showed the same pattern for the subcategory of frequency of host national contact (r = .07 in Western countries vs. -.16 in non-Western countries; see supplementary materials).

Third, host country type moderated the effect of host-national social resources on socio-cultural adaptation. The facilitating effect was significant in both groups, but it was significantly weaker for samples moving to non-Western countries. In a more detailed analysis, a reverse pattern was found for the link between organizational support and psychological adaptation, with

a significant positive effect in non-Western countries only (r = .33, vs. r = .10 in Western countries; see supplementary materials). Fourth, a significant interaction between host country type and overall stressors was found when predicting socio-cultural adaptation. There was a significant negative effect in the group traveling to Western countries (r = -.31), but no effect for the group traveling to non-Western countries (r = .04).

Publication Bias

In order to asses publication bias, we conducted *p*-curve analyses (Simonsohn, Nelson, Simmons, 2014a, b; Simonsohn, Simmons, & Nelson, 2015a) for all main categories and several subcategories of adaptation predictors (i.e., self-rated cultural distance, externally measured cultural distance, host national interaction, co-national interaction, host national resources, co-national resources, distant resources, each subcategory of stressors) using the software *P*-Curve 4.0 (Simonsohn, Simmons, & Nelson, 2015b). The *p*-curve analysis can only be performed on effects with $p < .05$. In one case (correlation between externally measured cultural distance and domain specific adjustment), this led to only retaining two effect sizes. This analysis was dropped.

We opted for the recent technique of robust *p*-curve analysis (Simonsohn, Simmons, & Nelson, 2015a) which uses, besides the full *p*-curve, also the half *p*-curve to make inferences about evidential value of a meta-analysis. The evidential value is supported if the half *p*-curve is right skewed with $p < .05$ or both half *p*-curve and full *p*-curve are right skewed with $p < .10$. All our analyses fulfilled at least one of these conditions, and in 48 out of 50 analyses both conditions were satisfied. This suggests that the results of our meta-analysis do not bare significant publication bias. The full results of these analyses can be found in the supplementary materials available upon request.

Table 2.
Meta-regression Test of Moderation Effects for Percent Male, Mean Age of the Sample and Length of Sojourn at Measurement as Continuous Moderators

Main Effect	Model			Moderators							
				Constant		% Male		Mean Age		Mean Stay	
	k	R^2	*Q*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Cultural Distance											
Self-Rated Distance on ALL	35	0.232	11.797 **	-0.450 ***	0.110	0.000	0.001	0.004	0.003	0.003 *	0.001
Self-Rated Distance on SCA	29	0.325	15.033 **	-0.564 ***	0.122	0.000	0.001	0.005	0.004	0.003 **	0.001
Self-Rated Distance on PSA	10	0.575	14.253 **	-0.241 *	0.116	0.000	0.002	0.002	0.004	0.002 **	0.001
Self-Rated Distance on DSA	8	0.187	1.827	-0.795	0.569	-0.001	0.004	0.020	0.018	-0.001	0.002
Externally Measured Distance on ALL	7	0.238	2.443	0.130	0.587	-0.001	0.004	-0.009	0.018	0.008	0.006
Externally Measured Distance on SCA	6	0.304	2.908	-0.401	0.750	0.000	0.004	-0.002	0.020	0.015	0.009
Social Interaction											
Host National Interaction on ALL	35	0.083	3.212	0.332 **	0.125	0.000	0.001	-0.008	0.005	0.001	0.001
Host National Interaction on SCA	17	0.198	4.394	0.401 *	0.165	0.002	0.002	-0.011	0.007	0.002	0.001
Host National Interaction on PSA	26	0.265	11.781 **	0.372 ***	0.102	-0.002	0.001	-0.009 *	0.004	0.000	0.001
Co-National Interaction on ALL	21	0.068	1.576	0.124	0.131	-0.002	0.002	-0.004	0.005	0.001	0.001
Co-National Interaction on SCA	6	0.873	6.968	-0.849	0.624	-0.001	0.003	0.052	0.028	-0.008 *	0.004
Co-National Interaction on PSA	19	0.088	1.851	0.096	0.130	-0.002	0.002	-0.002	0.005	0.001	0.001
Social Interaction on DSA	5	0.989	0.338	0.202	0.209	0.001	0.005	-0.005	0.012	0.000	0.005
Social Resources											
Resources on ALL	74	0.010	0.733	0.201 **	0.065	0.000	0.001	-0.001	0.002	0.000	0.001

Resources on SCA	34	0.140	5.566	0.389***	0.092	-0.001	0.001	-0.003	0.003	-0.001	0.001
Resources on PSA	55	0.016	0.833	0.127	0.087	0.001	0.001	0.000	0.003	0.000	0.001
Co-National Resources on ALL	25	0.286	12.055 **	0.351*	0.160	0.002	0.002	-0.020**	0.007	0.004*	0.002
Co-National Resources on SCA	12	0.502	13.294 **	1.455***	0.388	-0.017*	0.007	-0.019	0.011	0.001	0.002
Co-National Resources on PSA	18	0.404	16.172 **	0.224	0.149	0.003*	0.001	-0.016*	0.007	0.003*	0.001
Host National Resources on ALL	33	0.077	3.003	0.423**	0.136	-0.002	0.002	-0.004	0.004	0.000	0.001
Host National Resources on SCA	18	0.291	7.429	0.869***	0.215	-0.004	0.002	-0.014*	0.006	0.002	0.002
Host National Resources on PSA	24	0.165	5.062	0.365**	0.120	-0.003*	0.002	-0.004	0.004	0.000	0.001
Distant Resources on ALL	9	0.781	39.224 ***	0.147	0.124	0.007***	0.002	-0.013	0.007	0.001	0.001
Distant Resources on PSA	8	0.931	57.402 ***	0.082	0.124	0.008***	0.002	-0.009	0.007	-0.001	0.001
Stressors											
	10										
Stressors on ALL	6	0.056	6.079	-0.340***	0.062	0.000	0.001	0.001	0.002	0.001*	0.000
Stressors on SCA	34	0.253	11.368 **	-0.754***	0.158	0.002	0.001	0.009	0.005	0.001	0.001
Stressors on PSA	90	0.036	3.180	-0.276***	0.063	0.000	0.001	-0.001	0.002	0.001	0.000
Stressors on DSA	8	0.451	5.008	0.086	0.139	0.005	0.004	-0.016	0.010	-0.002	0.001

Note. ALL - Overall Adaptation; SCA - Socio-cultural Adaptation; PSA - Psychological Adaptation; DSA - Domain-Specific Adaptation. Results are reported for all antecedent categories and selected subcategories with $k \geq 3$. Results from analyses with $k < 3$ are not reported. Several analyses could not be conducted because of insufficient number of effect sizes per group, hence the number of analyses within one predictor category, as well as the type of analyzed predictor subcategories, may not be equivalent for all outcome variables. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.

Meta-ANOVA Test of Moderation Effects for Sojourner Group as Categorical Moderator

	Q	*df*	Group	*k*	*Q*	*df*	*r*
Cultural Distance							
Self-Rated Distance on Overall Adaptation							
Between	3.59	4	International Students	17	24.98	16	-.23 ***
Within	53.78	43	Expatriates	17	13.49	16	-.18 ***
Total	57.37	47	Expatriate Families	6	2.66	5	-.21 **
			Migrants	7	12.65 *	6	-.10
Self-Rated Distance on Socio-Cultural Adaptation							
Between	5.68	4	International Students	12	17.36	11	-.34 ***
Within	41.41	34	Expatriates	15	12.50	14	-.24 ***
Total	47.09	38	Expatriate Families	5	1.89	4	-.23 **
			Migrants	6	9.66	5	-.13
Self-Rated Distance on Psychological Adaptation							
Between	5.82	2	International Students	9	10.86	8	-.13 **
Within	15.02	12	Expatriates	4	2.15	3	-.13
Total	20.84	14	Migrants	2	2.01	1	.05
Social Interaction							
Host National Interaction on Overall Adaptation							
Between	7.63 *	2	International Students	27	24.96	26	.21 ***
Within	48.18	44	Expatriates	9	16.13 *	8	.08

Total	55.81		46	Migrants	11	7.09	10	.09	*
Host National Interaction on Socio-cultural Adaptation									
Between	.96		2	International Students	17	15.75	16	.28	***
Within	25.56		22	Expatriates	6	9.40	5	.22	**
Total	26.52		24	Migrants	2	.41	1	.34	**
Host National Interaction on Psychological Adaptation									
Between	13.03	**	3	International Students	17	14.69	16	.12	***
Within	31.53		28	Expatriates	3	3.66	2	-.10	
Total	44.56		31	Migrants	11	13.18	10	.06	
Host National Interaction on Domain-Specific Adaptation									
Between	2.82		1	International Students	4	6.37	3	.18	***
Within	7.27		5	Expatriates	3	.90	2	.07	
Total	10.09		6						
Co-National Interaction on Overall Adaptation									
Between	1.26		2	International Students	19	26.87	18	-.04	
Within	30.42		26	Expatriates	3	2.14	2	.02	
Total	31.68		28	Migrants	7	1.41	6	.02	
Co-National Interaction on Psychological Adaptation									
Between	1.27		2	International Students	14	20.65	13	-.02	
Within	22.94		20	Expatriates	2	.07	1	-.07	
Total	24.21		22	Migrants	7	2.22	6	.02	
Social Resources									
Resources on Overall Adaptation									
Between	.47		4	International Students	51	53.30	50	.20	***
Within	113.16		111	Expatriates	30	24.03	29	.18	***
Total	113.63		115	Expatriate Families	8	1.31	7	.17	**

			Migrants	26	34.52		25	.18	***
Resources on Socio-Cultural Adaptation									
Between	1.52	3	International Students	22	32.98	*	21	.22	***
Within	52.75	49	Expatriates	16	8.87		15	.19	***
Total	54.27	52	Expatriate Families	5	.73		4	.20	**
			Migrants	10	10.18		9	.15	**
Resources on Psychological Adaptation									
Between	1.26	4	International Students	43	39.09		42	.17	***
Within	81.48	80	Expatriates	14	14.90		13	.14	**
Total	82.73	84	Expatriate Families	6	.87		5	.16	*
			Migrants	21	26.62		20	.20	***
Co-National Resources on Overall Adaptation									
Between	3.69	1	International Students	22	24.89		21	.09	**
Within	30.88	29	Migrants	9	5.99		8	-.02	
Total	34.56	30							
Co-National Resources on Socio-Cultural Adaptation									
Between	.93	1	International Students	8	9.93		7	.08	
Within	13.73	12	Migrants	6	3.80		5	-.01	
Total	14.66	13							
Co-National Resources on Psychological Adaptation									
Between	1.78	1	International Students	20	21.67		19	.10	**
Within	23.69	22	Migrants	4	2.02		3	.00	
Total	25.47	23							
Host National Resources on Overall Adaptation									
Between	5.46	3	International Students	23	32.94		22	.21	***
Within	44.75	37	Expatriates	6	.84		5	.08	**
Total	50.21	40	Expatriate Families	2	.34		1	.30	

			Migrants	10	10.62		9	.17	***
Host National Resources on Socio-Cultural Adaptation									
Between	7.03	3	International Students	10	14.89		9	.38	***
Within	22.04	18	Expatriates	3	.46		2	.10	
Total	29.08	21	Expatriate Families	2	.88		1	.35	**
			Migrants	7	5.81		6	.25	*
Host National Resources on Psychological Adaptation									
Between	1.27	2	International Students	20	25.09		19	.13	***
Within	29.63	25	Expatriates	3	.12		2	.05	
Total	30.90	27	Migrants	5	4.42		4	.10	*
Distant Social Resources on Overall Adaptation									
Between	5.84	2	International Students	6	2.49		5	.14	**
Within	14.84	12	Expatriates	6	9.22		5	.11	*
Total	20.68	14	Migrants	3	3.13		2	-.02	
Distant Social Resources on Socio-Cultural Adaptation									
Between	.16	1	International Students	3	5.16		2	.12	*
Within	6.51	5	Expatriates	4	1.35		3	.15	**
Total	6.67	6							
Distant Social Resources on Psychological Adaptation									
Between	4.55	2	International Students	6	.96		5	.16	**
Within	11.49	8	Expatriates	2	8.69	**	1	.13	
Total	16.04	10	Migrants	3	1.84		2	-.02	
Stressors									
Stressors on Overall Adaptation									
Between	4.48	4	International Students	50	67.39	*	49	-.29	***

Within	137.16	135	Expatriates	13	3.67		12	-.26	***
Total	141.64	139	Expatriate Families	7	4.60		6	-.24	***
			Migrants	69	61.50		68	-.23	***
Stressors on Socio-Cultural Adaptation									
Between	2.03	3	International Students	18	29.42	*	17	-.34	***
Within	41.46	38	Expatriates	7	2.02		6	-.26	***
Total	43.49	41	Expatriate Families	3	1.59		2	-.26	*
			Migrants	14	8.43		13	-.26	***
Stressors on Psychological Adaptation									
Between	3.04	4	International Students	42	45.97		41	-.27	***
Within	114.28	114	Expatriates	6	2.44		5	-.30	***
Total	117.32	118	Expatriate Families	6	5.39		5	-.25	***
			Migrants	64	60.49		63	-.23	***
Stressors on Domain-Specific Adaptation									
Between	2.93	2	International Students	3	3.68		2	-.13	*
Within	7.61	5	Expatriates	3	.13		2	-.23	***
Total	10.55	7	Migrants	2	3.81		1	-.28	***

Note. Results are reported for all antecedent categories and selected subcategories with $k \geq 2$ in any of the included groups. Groups with $k < 2$ were excluded from the analysis. Several analyses could not be conducted because of insufficient number of effect sizes per group, hence the number of analyses within one predictor category, as well as the type of analyzed predictor subcategories, may not be equivalent for all outcome variables. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.
Meta-ANOVA Test of Moderation Effects for Study Design as Categorical Moderator

	Q	*df*	Group	*k*	*Q*	*df*	*r*	
Cultural Distance								
Self-Rated Distance on Overall Adaptation								
Between	0.90	1	Cross-sectional studies	43	51.81	42	-.20	***
Within	52.34	46	Longitudinal studies	5	0.53	4	-.12	
Total	53.24	47						
Self-Rated Distance on Socio-Cultural Adaptation								
Between	0.62	1	Cross-sectional studies	36	40.02	35	-.26	***
Within	40.80	37	Longitudinal studies	3	0.78	2	-.17	
Total	41.42	38						
Self-Rated Distance on Psychological Adaptation								
Between	0.27	1	Cross-sectional studies	13	15.06	12	-.09	**
Within	15.54	14	Longitudinal studies	3	0.48	2	-.14	
Total	15.82	15						
Externally Measured Distance on Overall Adaptation								
Between	1.45	1	Cross-sectional studies	7	11.19	6	-.15	
Within	11.55	8	Longitudinal studies	3	0.35	2	.03	
Total	13.00	9						
Externally Measured Distance on Socio-Cultural Adaptation								
Between	1.23	1	Cross-sectional studies	7	8.67	6	-.13	

Within	10.03	7	Longitudinal studies	2	1.36	1	.10	
Total	11.26	8						
Social Interaction								
Host National Interaction on Overall Adaptation								
Between	1.43	1	Cross-sectional studies	43	47.33	42	.16	***
Within	49.08	47	Longitudinal studies	6	1.75	5	.07	
Total	50.51	48						
Host National Interaction on Socio-Cultural Adaptation								
Between	1.92	1	Cross-sectional studies	23	24.50	22	.28	***
Within	25.85	24	Longitudinal studies	3	1.35	2	.13	
Total	27.77	25						
Host National Interaction on Psychological Adaptation								
Between	1.08	1	Cross-sectional studies	28	33.14	27	.08	**
Within	33.38	30	Longitudinal studies	4	0.24	3	.00	
Total	34.46	31						
Co-National Interaction on Overall Adaptation								
Between	2.13	1	Cross-sectional studies	22	25.52	21	-.04	
Within	30.33	27	Longitudinal studies	7	4.81	6	.05	
Total	32.47	28						
Co-National Interaction on Psychological Adaptation								
Between	2.15	1	Cross-sectional studies	17	15.30	16	-.03	
Within	23.13	21	Longitudinal studies	6	7.83	5	.05	
Total	25.28	22						

Social Resources

Resources on Overall Adaptation								
Between	1.61	1	Cross-sectional studies	103	105.33	102	.19	***
Within	112.77	114	Longitudinal studies	13	7.44	12	.14	**
Total	114.38	115						
Resources on Socio-Cultural Adaptation								
Between	0.25	1	Cross-sectional studies	49	50.00	48	.20	***
Within	52.10	51	Longitudinal studies	4	2.09	3	.15	
Total	52.35	52						
Resources on Psychological Adaptation								
Between	1.97	1	Cross-sectional studies	74	73.59	73	.18	***
Within	81.65	83	Longitudinal studies	11	8.05	10	.11	*
Total	83.62	84						
Host National Resources on Overall Adaptation								
Between	0.38	1	Cross-sectional studies	38	43.69	37	.19	***
Within	43.77	39	Longitudinal studies	3	0.08	2	.14	
Total	44.15	40						
Host National Resources on Socio-Cultural Adaptation								
Between	0.40	1	Cross-sectional studies	20	21.88	19	.31	***
Within	22.22	20	Longitudinal studies	2	0.34	1	.22	
Total	22.62	21						
Host National Resources on Psychological Adaptation								
Between	0.48	1	Cross-sectional studies	27	27.06	26	.12	***
Within	29.39	27	Longitudinal studies	2	2.33	1	.07	

Total	29.87		28						
Co-National Resources on Overall Adaptation									
Between	2.87		1	Cross-sectional studies	30	31.62	29	.07	**
Within	32.74		30	Longitudinal studies	2	1.13	1	-.09	
Total	35.61		31						
Co-National Resources on Psychological Adaptation									
Between	4.30	*	1	Cross-sectional studies	23	23.39	22	.10	***
Within	24.61		23	Longitudinal studies	2	1.22	1	-.09	
Total	28.91		24						
Distant Resources on Overall Adaptation									
Between	0.47		1	Cross-sectional studies	13	13.82	12	.08	*
Within	14.22		13	Longitudinal studies	2	0.40	1	.14	
Total	14.69		14						
Distant Resources on Psychological Adaptation									
Between	0.22		1	Cross-sectional studies	9	10.55	8	.09	
Within	10.81		9	Longitudinal studies	2	0.26	1	.14	
Total	11.03		10						
Stressors									
Stressors on Overall Adaptation									
Between	8.29	**	1	Cross-sectional studies	126	125.75	125	-.27	***
Within	137.37		138	Longitudinal studies	14	13.00	11.62	-.15	***
Total	145.66		139						

Stressors on Socio-Cultural Adaptation										
Between	13.40	***	1	Cross-sectional studies	39	40.08	38	-.32	***
Within	42.02		40	Longitudinal studies	3	1.95	2	.05	
Total	55.43		41						
Stressors on Psychological Adaptation									
Between	2.70		1	Cross-sectional studies	106	104.51	105	-.25	***
Within	114.52		117	Longitudinal studies	13	10.01	12	-.19	***
Total	117.22		118						
Stressors on Domain-Specific Adaptation									
Between	1.44		1	Cross-sectional studies	6	6.83	5	-.22	***
Within	7.73		6	Longitudinal studies	2	0.90	1	-.10	
Total	9.17		7						

Note. Results are reported for all antecedent categories and selected subcategories with $k \geq 2$ in any of the included groups. Groups with $k < 2$ were excluded from the analysis. Several analyses could not be conducted because of insufficient number of effect sizes per group, hence the number of analyses within one predictor category, as well as the type of analyzed predictor subcategories, may not be equivalent for all outcome variables.
Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5.
Meta-ANOVA Test of Moderation Effects of Host Country Type

	Q	*df*	Group	*k*	*Q*	*df*	*r*
Cultural Distance							
Self-Rated Distance on Overall Adaptation							
Between	0.00	1	To Western host country	23	32.59	22	-.18 ***
Within	34.46	31	To non-Western host country	10	1.87	9	-.17 **
Total	34.46	32					
Self-Rated Distance on Socio-Cultural Adaptation							
Between	0.00	1	To Western host country	19	24.76	18	-.22 ***
Within	27.03	25	To non-Western host country	8	2.27	7	-.22 **
Total	27.03	26					
Self-Rated Distance on Psychological Adaptation							
Between	2.82	1	To Western host country	9	12.42	8	-.06
Within	12.66	10	To non-Western host country	3	0.24 **	2	-.19 **
Total	15.47	11					
Self-Rated Distance on Domain-Specific Adaptation							
Between	7.21 **	1	To Western host country	2	1.13	1	-.21 ***
Within	3.76	4	To Non-Western host country	4	2.63	3	-.04
Total	10.97	5					

Externally Measured Distance on Overall Adaptation								
Between	0.77		1	To Western host country	2	3.78	1	-.06
Within	3.79		2	To Non-Western host country	2	0.01	1	.03
Total	4.56		3					
Social Interaction								
Host National Interaction on Overall Adaptation								
Between	1.05		1	To Western host country	26	20.66	25	.18 ***
Within	36.08		34	To Non-Western host country	10	15.41	9	.11 *
Total	37.13		35					
Host National Interaction on Socio-Cultural Adaptation								
Between	0.03		1	To Western host country	12	11.27	11	.29 ***
Within	19.13		17	To Non-Western host country	7	7.85	6	.27 ***
Total	19.16		18					
Host National Interaction on Psychological Adaptation								
Between	7.24	**	1	To Western host country	19	19.04	18	.09 *
Within	23.03		21	To Non-Western host country	4	4.00	3	-.10 *
Total	30.28		22					
Host National Interaction on Domain-Specific Adaptation								
Between	0.63		1	To Western host country	2	0.00	1	.12 *
Within	0.90		3	To Non-Western host country	3	0.90	2	.07
Total	1.54		4					
Co-National Interaction on Overall Adaptation								
Between	0.11		1	To Western host country	19	22.10	18	.00
Within	24.82		21	To Non-Western host country	4	2.72	3	.03
Total	24.94		22					

Co-National Interaction on Socio-Cultural Adaptation									
Between	0.90	1	To Western host country	5	6.64		4	-.11	
Within	7.59	5	To Non-Western host country	2	0.95		1	.03	
Total	8.49	6							
Co-National Interaction on Psychological Adaptation									
Between	0.02	1	To Western host country	15	16.71		14	.02	
Within	18.14	15	To Non-Western host country	2	1.43		1	.01	
Total	18.16	16							
Social Resources									
Resources on Overall Adaptation									
Between	0.01	1	To Western host country	64	66.61		63	.20	***
Within	86.85	87	To Non-Western host country	25	20.24		24	.20	***
Total	86.86	88							
Resources on Socio-Cultural Adaptation									
Between	0.00	1	To Western host country	24	31.25	*	23	.22	***
Within	36.77	36	To Non-Western host country	14	5.52		13	.22	***
Total	36.77	37							
Resources on Psychological Adaptation									
Between	0.07	1	To Western host country	52	48.65		51	.18	***
Within	64.22	64	To Non-Western host country	14	15.57		13	.17	***
Total	64.28	65							
Resources on Domain-Specific Adaptation									
Between	0.26	1	To Western host country	3	1.33		2	.25	***

Within	9.29		7	To Non-Western host country	6	7.96	5	.21 ***
Total	9.55		8					
Host National Resources on Overall Adaptation								
Between	1.42		1	To Western host country	25	29.84	24	.21 ***
Within	31.80		28	To Non-Western host country	5	1.96	4	.12
Total	33.22		29	To Non-Western host country				
Host National Resources on Socio-Cultural Adaptation								
Between	4.47	*	1	To Western host country	13	15.56	12	.36 ***
Within	16.07		14	To Non-Western host country	3	0.51	2	.14
Total	20.54		15					
Host National Resources on Psychological Adaptation								
Between	0.00		1	To Western host country	17	14.35	16	.11
Within	21.66		19	To Non-Western host country	4	7.30	3	.11
Total	21.66		20					
Co-National Resources on Overall Adaptation								
Between	0.04		1	To Non-Western host country	24	27.09	23	.05
Within	27.19		25	To Non-Western host country	3	0.10	2	.06
Total	27.23		26					
Co-National Resources on Psychological Adaptation								
Between	0.58		1	To Western host country	17	17.38	16	.08 *
Within	18.39		18	To Non-Western host country	3	1.01	2	.02
Total	18.97		19					

Stressors										
Stressors on Overall Adaptation										
Between	0.92		1	To Western host country	106	110.15		105	-.26	***
Within	120.95		120	To Non-Western host country	16	10.80		15	-.22	***
Total	121.86		121							
Stressors on Socio-Cultural Adaptation										
Between	6.48	*	1	To Western host country	28	28.69	*	27	-.31	***
Within	31.87		30	To Non-Western host country	4	3.18		3	-.04	
Total	38.35		31							
Stressors on Psychological Adaptation										
Between	0.02		1	To Western host country	93	93.84		92	-.25	***
Within	103.25		105	To Non-Western host country	14	9.41		13	-.25	***
Total	103.28		106							

Note. Results are reported for all antecedent categories and selected subcategories with $k \geq 2$ in any of the included groups. Groups with $k < 2$ were excluded from the analysis. Several analyses could not be conducted because of insufficient number of effect sizes per group, hence the number of analyses within one predictor category, as well as the type of analyzed predictor subcategories, may not be equivalent for all outcome variables. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

Consistently with adaptation theory (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001) and with our predictions, the current meta-analysis showed that generally having more host national interaction and more social resources is associated with better adaptation, while perceiving a greater cultural distance and more social stressors is associated with poorer adaptation. Importantly, this is valid for all adapting populations, except for some specific cases (e.g., host national interaction for psychological adaptation, organizational support). An important contribution of this study consists of showing that while various contextual moderators intervene in the adaptation process, belonging to a specific adapting population may not be the most relevant of them. In contrast to what is assumed by the group-centered adaptation research (Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis), other moderators, such as the country the individual moves to, seem to play at least an equally important role.

Cultural Distance

While in general, the mean effect sizes were in line with what we would expect based on Ward and colleagues' model (Searle & Ward, 1990; Ward & Kennedy, 1999; Ward et al., 2001), several meaningful exceptions are worth noting. For example, we showed that cultural distance undermines adaptation, but only when it is based on self-ratings. Therefore, it is not the objective difference between the home and the host culture that matters, but rather the subjective perception of how big this difference is. This finding is in line with Ward and Searle (1991) who argued that facing cultural differences that are unexpected and hard to understand may be stressful. Stress, in turn, affects psychological adaptation and creates an unfavorable context for culture learning. However, the objective presence of a potential stressor – in this case, a cultural

difference – is not enough to produce stress; stress is only aroused when a factor is appraised as stressful (Lazarus & Folkman, 1984). This may explain why it is the subjective perception of cultural distance that matters.

Self-rated cultural distance affects less those individuals who have spent more time in the host country, possibly because as time passes, perceived cultural differences lose at least some of their stressful features of being new, unexpected, difficult to understand and to respond to. Long-term sojourners may still see the host culture as distant from their heritage culture, but this perception may not affect them as strongly as in the beginning of their sojourn because first, they know what differences they may expect, and second, they have already learned how to deal with these differences even if they may not entirely accept them. It is more difficult to explain why the undermining effect of self-rated distance on domain-specific adaptation is only found for sojourners in Western countries. Future research may look more closely at this issue.

Social Interaction

Our meta-analysis shows that while host national interaction is generally beneficial, co-national interaction does not help adaptation. This finding replicates previous meta-analytic results for socio-cultural adaptation (Wilson et al., 2013[11]) and extends them to psychological and domain-specific adaptation. It is also in line with the culture learning approach which assumes that foreigners learn the new culture in great part by observing and interacting with its members, thus more interaction with members of the host culture should lead to better adaptation.

Ong and Ward (2005) argue that interacting with one's co-nationals sojourning in the same host country may also enhance culture learning; assuming they are well-adapted

[11] Note, however, that the study by Wilson et al. (2013) considered quantitative (interaction) and qualitative (resources) aspects of intergroup contact together and only used type of measurement as a moderator.

themselves, such co-nationals may be particularly qualified to explain the host culture to the newcomer. Our data do not confirm it. However, most primary studies in our meta-analysis did not specify where the contact took place, and we did not have enough information to distinguish contact with co-nationals sojourning in the host country from other forms of co-national interaction, for example, contacts with family and friends who stayed in the home country. As such, our findings neither support nor discard Ong and Ward's (2005) hypothesis.

Interestingly, while host-national interaction generally seems to support socio-cultural adaptation, it enhances psychological adaptation only under certain conditions. More specifically, interacting with host nationals seems to be important for psychological adaptation of international students, but not for other populations. Moreover, it is beneficial in Western countries, but not in non-Western countries.

For the former effect, it may be important that the structural measures meta-analyzed here under the label of social interaction do not distinguish between positive and negative contact experiences and may capture both. One explanation could, therefore, have to do with Allport 's optimal contact conditions (1954)[12]. According to Allport, intergroup contact is more likely to produce positive outcomes if the groups at stake are of equal status, cooperate, have common goals and there is support from social institutions and authorities for such a contact. Research has shown that, even if not essential, these conditions magnify contact effects, particularly if they come as a bundle in institutionally structured contact situations (Pettigrew & Tropp, 2006).

International students are often enrolled in institutionalized exchange programs that intend to approach such optimal contact conditions. Differently than migrants and expatriates for

[12] While research on Allport's contact hypothesis usually focuses on reduction of prejudice as the outcome of intergroup contact, these effects may stand for improvements of the overall relation between members of two groups. Because cross-cultural adaptation has a social-cognitive component (see the ABC model of culture shock, Ward et al., 2001), we may assume that such improvement should translate into better adaptation.

whom host national contacts may be highly diverse, international students are likely to primarily interact with host nationals who are fellow students with similar social status. International students are more likely to cooperate with local students (e.g., on group assignments) than to compete for resources such as jobs, while migrants and expatriates may be perceived and perceive themselves as competitors. International students are also more likely to work with local students toward common goals (e.g., a good mark for a group assignment) rather than divergent goals, which may apply less to migrants (e.g., interests of migrants may be seen as divergent from majority interests) and expatriates (e.g., the goals of expatriate managers, such as increased performance, may go against the interests of local employees, such as lower workload). Overall, contact conditions may indeed be more favorable in the case of students, which would explain why the mere amount of contacts with locals has stronger positive effects for this group.

Another factor that determines the effect of host national interaction on adaptation is whether one moves to a Western or a non-Western country. From intergroup contact theory, we would predict that intergroup contact improves intergroup outcomes by learning about the other group, by reducing anxiety and uncertainty, and by increasing empathy and perspective taking (Pettigrew & Tropp, 2006, 2008). This in turn should reduce stress, facilitate interactions and improve interpersonal relations in the sojourner context. Indeed, according to our results interacting with Western host-nationals is slightly beneficial to adaptation. However, interacting with non-Western host-nationals does not seem to help, and surprisingly, it is even negatively related to psychological adaptation.

We assume this unexpected finding is related to less favorable contact conditions in the case of sojourners living in non-Western countries. Moving to a non-Western country may place sojourners in a higher-status or lower-status position compared to host-nationals. Consider the

example of Western expatriate managers sent by their firms to non-Western countries with low levels of economic development. It is likely that such high-status Westerners will have relatively higher salaries, will be expected to manage local employees rather than encounter them on equal terms, to impose their goals rather than have common goals, and that there will be little or no institutional support or prescriptive norms for their integration with locals. This may extend to the private life domain, where they may still be seen as hierarchically superior. Other groups moving to non-Western countries, such as work migrants, might end up in low-status roles in the service industry, which would also go against optimal contact conditions and increase the likelihood of negative contact experiences. In either of these contexts, host national contact may not be particularly helpful when adapting to the host society. Yet, more research is necessary to further explore this issue.

Coping Resources

In regard to coping resources, our findings indicate that it is crucial which group provides them. In our main analysis, host national resources are associated with both dimensions of adaptation, and the association is even stronger for socio-cultural adaptation. Thus, it seems that the most important function of host national ties, above and beyond serving as resources for coping with transition stress, is to provide the foreigner with opportunities for culture learning.

In contrast to that, co-national resources are not related to socio-cultural adaptation, which suggests they are less relevant for social learning than for coping with transition stress. However, they do interact with gender, and this interaction is different for the two outcomes: co-national resources seem to enhance socio-cultural adaptation of females and psychological adaptation of males. In regard to the former effect, one explanation could be that women are more willing to seek help than men (e.g., Addis & Mahalik, 2003), possibly because of gender

stereotypes that impose more autonomy on men. When challenged by practical aspects of the host culture, women are therefore more likely to reach out for co-national assistance (as suggested by Ong & Ward, 2005), which makes them benefit more from this resource. Men may feel less comfortable asking for practical help, but they may still benefit from emotional support from co-nationals which is not labeled as help.

It is more difficult to explain why access to co-national resources would be more positive to the well-being of males. Some early studies suggested that males' mental health benefits more from social relationships, especially from family ties such as marriage (see Coombs, 1991, for a review) which may be covered by our category of co-national resources. This would be in line with our results. However, later studies including a large-scale meta-analysis (Pinquart & Sorensen, 2000; see also Williams, 2003; Umberson et al., 1996) contradict this finding showing no gender differences. Therefore, we abstain here from speculations and limit ourselves to a call for explorative research on this topic.

Further, the influence of co-national resources on the psychological dimension of adaptation is greater for younger samples (and co-national support for students), suggesting that even while abroad, the co-national group is a highly relevant source of friendships and social support. Finally, co-national resources seem to bring more adaptive benefits to individuals with longer tenure in the host culture. At first sight, this latter finding appears to go against the assumption that the availability of coping resources should be most important at the initial, stressful stages of intercultural transitions. It also seems counter-intuitive because one could expect that with time, social ties with the home country should loosen.

However, it has been argued that while the beginning of a transition is mostly about coping with new, stressful intercultural situations, in later stages exploring social situations and

building a network is essential (Van der Zee & Van Oudenhoven, 2013). Co-nationals, especially those who remained in the home country, may not be best equipped to support the early coping process; on the opposite, even high quality co-national ties may impede it by increasing the sense of homesickness and belonging elsewhere. Yet, when the initial stress is overcome and it comes to building a social network, the nationality of people within this network may be less relevant, hence co-national resources start producing positive effects. Moreover, tenure in the host country may act in favor of replacing distant co-national ties (friends who stayed in the home country) by local co-national ties (co-national friends living in the same host country). In line with the above-cited argument by Ong and Ward (2005), such local co-national ties may facilitate adaptation, while distant co-national ties dominating at early stages of transition do not. Again, further research is needed to test these hypotheses directly.

Stressors

Overall, stressors are negatively related to both psychological and socio-cultural adaptation. Interestingly, the latter relation disappears in longitudinal studies. The analysis of predictor subcategories may suggest that this moderation effect is due specifically to the subcategory of acculturative stressors, but note that primary studies reporting the remaining subcategories in relation to socio-cultural adaptation were not numerous enough in this analysis to draw valid conclusions (e.g., only two longitudinal studies for low social status, no longitudinal studies for perceived discrimination). Potential explanations for this lack of long-term effects should be explored, and especially reverse causation assuming that poor adaptation is a source of stress, or even bidirectional relations between those factors.

Consider the example of perceived discrimination. There are virtually no longitudinal studies relating this factor alone to socio-cultural adaptation. However, perceived

discrimination is one of the aspects usually measured by acculturative stressor scales. These acculturative stressors do not show long-term effects in longitudinal studies, yet perceived discrimination is associated with both socio-cultural and psychological adaptation in cross-sectional studies, and this finding replicates previous meta-analyses (Schmitt et al., 2014; Wilson, Ward, & Fischer, 2013).

One explanation for the relatively strong correlation between perceived discrimination and socio-cultural adaptation is that foreigners who feel discriminated are motivated to avoid contacts with host nationals, which deprives them of culture learning opportunities (Wilson et al., 2013; Leong & Ward, 2000). Another possibility is a bidirectional relation: individuals with poor levels of culture-specific skills are more likely to be discriminated (Wilson et al., 2013) or simply feel more discriminated, that is, make external attributions and blame host-nationals for their own negative outcomes (cf. Jasinskaja-Lahti, Liebkind & Solheim, 2009). In both cases, perceived discrimination may lead to contact avoidance, further undermining adaptation. To our knowledge, such a bidirectional relation has not been investigated yet. The multitude of possible causal links between perceived discrimination and socio-cultural adaptation cries for an in-depth longitudinal or experimental investigation.

Limitations

While the inclusion and comparison of various adapting populations constitutes a unique strength of our meta-analysis, this choice brings one important limitation. Because the different categories of contextual factors of adaptation are studied with unequal frequency in those populations (e.g., perceived discrimination is hardly studied for expatriate employees, and social interaction for expatriate families; Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis),

some analyses have been dominated by studies from one population, while other populations were underrepresented. By consequence, some caution is required when generalizing specific results to the overall population of intercultural travelers.

A second limitation is that, despite our call for unpublished studies, such works constitute a small percentage of the examined body of literature. Still, as the *p*-curve analyses suggest, our study did not detect systematic publication bias. This may be due to the fact that, since we were interested in contextual variables and these are seldom the focus of adaptation research, many of the included effect sizes corresponded with control variables. Because these are not relevant for supporting or rejecting hypotheses, they are unlikely to bear publication bias. Thus, the low percentage of unpublished studies does not undermine the evidential value of our study.

Finally, an often-encountered concern in large scale meta-analyses is that several authors contribute with more than one primary study and there is risk that some samples may not be completely independent (cf., Bhaskar-Shrinivas et al., 2005; Hechanova et al., 2003). We tried to address this issue by carefully analyzing and comparing sampling methods, sample composition and reported effect sizes in such studies. In four cases, this resulted in exclusion of a study. The overall percentage of papers coming from the same authors in our meta-analysis (39%) was comparable with other meta-analyses in the area (Wilson et al., 2013: 40%, Bhaskar-Shrinivas et al., 2005: 50%, Hechanova et al., 2003: 38%).

Conclusions

What may one take home from this meta-analysis? First, the wide coverage of predictor and outcome variables, like no meta-analysis on cross-cultural adaptation before, allows for an integrative perspective on the overall evidence. We think it is fair to say that it provides unique

support for the existing theory of cross-cultural adaptation. Second, for the first time we were able to test assumptions on differences between adapting populations that are implied in the way how research has been conducted so far. We conclude that most of these assumptions do not hold and the population type appears to be less important as a moderator than one might guess. Moreover, its moderation effects are rather unexpected. Third, we were able to identify other important moderators that have been overlooked so far, such as the type of the host country.

In more detail, in this meta-analysis we report both predictor and outcome variables that have not been previously meta-analyzed. It is for the first time that the psychological dimension of cross-cultural adaptation is reported in a meta-analysis as a distinct outcome variable, and that the occupational dimension of adaptation is considered not only for expatriates, but also for other adapting populations (e.g., international students). Moreover, while previous quantitative reviews in the area only report broad categories of predictors, we were included a number of theoretically relevant subcategories. This enables us to grasp the differential effects of conceptually proximate, but empirically distinct factors that cannot be satisfactorily examined by means of moderation analyses because of the assumption of sample independence. For example, it is the first time a meta-analysis shows that subjective perceptions of cultural distance are more relevant for adaptation outcomes than cultural distance assessed by external measures, or that quantitative and qualitative aspects of intergroup contact display different patterns of influence in the adaptation process, just as one would predict based on the adaptation theory (cf. Ward et al., 2001). An interested reader will find more differential effects of this kind in the supplementary materials.

This meta-analysis is also the first to compare four different adapting populations that research, including previous literature reviews, has tended to examine separately. This

comparison provides strong empirical support of the so far untested universal view of the adaptation processes of stress and coping and culture learning by showing that, all adapting populations and all contexts taken together, social-contextual factors associated with these processes indeed do predict cross-cultural adaptation in the expected directions. This does not imply that adaptation context is irrelevant. On the contrary, our moderation analyses make it very clear that context matters; but the role of the group-specific context that research has assumed, rather than showed, to be the source of differences in adaptation processes, may be overestimated, while the role of other contextual factors is clearly underestimated.

The third important conclusion from this study is, therefore, the existence of evidence for the crucial role of theoretically relevant moderating factors different than the type of adapting population. While previous meta-analyses investigated several moderators, these were relevant methodologically rather than theoretically (e.g., type of measures used, Wilson et al. 2013; study design, Schmitt et al., 2014) or limited to one effect only (e.g., English vs. non-English speaking host country as a moderator of the effect of language ability on adjustment, Bhaskar-Shrinivas et al., 2005). In our meta-analysis we were, for the first time, able to demonstrate the moderating role of theoretically derived factors such as the cultural context in which adaptation occurs and the differential role of the host national vs. co-national social resources.

Implications for Adaptation Research

One implication of this meta-analysis for adaptation research has to do with the generalizability of findings. Researchers may consider that findings from samples belonging to specific adapting populations cannot be generalized to these populations unless the host country type is taken into account. For example, the results of a study of international students in the

USA are unlikely to be representative of international students in China. Also, researchers who intend to run studies with samples of mixed destinations may want to evaluate if the variables they plan to use may be influenced by the host culture. The outputs of our meta-analysis may be helpful for such evaluation.

Moreover, the current meta-analysis challenges future research with unexpected moderation results. Some of these moderations are absolutely astonishing and, to our knowledge, there is no theoretical framework available yet that could have predicted these moderations. Our tentative post-hoc explanations cannot substitute more sophisticated and innovative theorizing, which seems to be necessary more than ever. Some starting questions for theoretical advancements can be derived directly from this meta-analysis:

- Is externally measured cultural distance actually unrelated to adaptation, or are its effects moderated? If so, what are the moderators?
- Why is host national interaction only relevant for psychological adaptation of international students, but not of the remaining adapting populations?
- Why does host national interaction contribute positively to adaptation to Western host countries, but not to non-Western host countries?
- Why are there gender differences in the effects of co-national resources on adaptation?
- Why are co-national resources more beneficial for sojourners with longer tenure in the host country?

Moreover, there is room for cutting edge empirical research that does not have to wait for theoretical advancements. Some preliminary ideas outlined above call urgently for empirical testing:

- Does host-national interaction facilitate adaptation more when it meets conditions that support positive effects of intergroup contact on the reduction of prejudice?
- Can gender differences in help seeking behavior explain gender differences in the role of co-national resources for adaptation?
- Does the location of co-national resources shift over time during long term adaptation from the home country to the host country, and can this shift explain the moderation of effects of co-national resources by tenure in the host country?
- What is the causal link between acculturative stressors and adaptation? Does perceiving more stressors lead to poor adaptation, or does poor adaptation lead to perceiving more stressors? Is the pattern different for perceived discrimination?

Shifting from studying cross-cultural adaptation population by population to studying it cultural context by cultural context is another step forward that the adaptation literature might consider. In 1993, Ward and Kennedy asked "Where is the culture in cross-cultural transitions?" and strived to bring cultural factors back into adaptation research. Over twenty years later, it is high time for research to address this question in a more systematic way, and the results of our meta-analysis should provide an impulse to do so. Admittedly, our distinction between Western and non-Western countries, imposed by the data we worked with and by the need to maximize the use of these data, is rather rough. Yet, several more sophisticated taxonomies of cultures exist, and we strongly encourage research to reach out for these.

Having said this, we acknowledge that the group-centered approach in adaptation studies is often necessary. Especially the applied areas such as organizational psychology have to focus on clearly defined adapting populations to ensure that their findings will translate into accurate applications; but even these areas can profit from developing awareness of the profound

differences that may exist within their target populations. As much as one should be careful when drawing conclusions about adaptation challenges faced by Chinese expatriates in the USA from research on Chinese international students in the USA, as much one should be careful when drawing such conclusions from research on American expatriates in China. We do not argue that group-centered studies should be abandoned. We do argue that adaptation research has much to gain by putting on the research agenda contextual influences that go far beyond the assumed differences between adapting populations.

Appendix B.

Overview of Primary Studies

ID	Study	Sample ID	Sample Type	*N*	% Male	Age *M*	Stay *M*	Design	Host Country
1	Al-Sharideh & Goe (1998)	1	Students	226	Unknown	28.00	Unknown	Cross-Sectional	Unspecified
2	Ali, Van der Zee & Sanders (2003)	2	Exp. Families	247	7.00	43.40	96.00	Cross-Sectional	Unspecified
3	Anderzén & Arnetz (1997)	3	Expatriates	69	100.00	36.70	12.00	Longitudinal	Unspecified
4	Aryee & Stone (1996)	4	Expatriates	184	80.00	Unknown	72.00	Cross-Sectional	Non-Western
5	Ataca & Berry (2002)	5	Migrants	200	50.00	42.10	162.00	Cross-Sectional	Western
6	Aycan & Berry (1996)	6	Migrants	110	88.20	38.20	112.80	Cross-Sectional	Western
7	Bai (2012)	7	Students	267	29.60	26.00	35.00	Cross-Sectional	Western
8	Bakker, Van Oudenhoven, & Van der Zee (2004)	8	Migrants	847	57.00	61.50	440.40	Cross-Sectional	Western
9	Barry & Grilo (2003)	9	Migrants	170	51.80	28.62	Unknown	Cross-Sectional	Western
10	Bektas (2004)	10	Students	132	65.91	26.16	34.80	Cross-Sectional	Western
11	Bektas, Demir, & Bowden (2009)	11	Students	124	66.12	25.95	Unknown	Cross-Sectional	Western
12	Bierwiaczonek, Waldzus & Van der Zee (2014)	12	Students	220	29.00	22.39	3.38	Cross-Sectional	Western
13	Bierwiaczonek, Waldzus & Van der Zee (2015)	13	Students	118	37.00	24.60	7.36	Cross-Sectional	Western
14	Bigler (2002)	14	Exp. Families	134	0.00	29.46	22.77	Cross-Sectional	Western
15	Birman, Simon, Chan, & Tran (2014)	15	Migrants	391	49.00	46.06	70.80	Cross-Sectional	Western
16	Black (1988)	16	Expatriates	67	100.00	46.00	Unknown	Cross-Sectional	Non-Western
17	Black (1990)	17	Expatriates	220	43.90	93.60	Unknown	Cross-Sectional	Non-Western

18	Black & Stephens (1989)	18	Expatriates	220	93.60	43.90	Unknown	Cross-Sectional	Non-Western
18	Black & Stephens (1989)	19	Exp. Families	220	5.00	42.30	Unknown	Cross-Sectional	Non-Western
19	Boiger (2008)	20	Students	92	39.10	24.82	12.59	Cross-Sectional	Unspecified
20	Briones, Verkuyten, Cosano, & Tabernero (2012)	21	Migrants	197	51.90	14.47	47.04	Cross-Sectional	Western
20	Briones, Verkuyten, Cosano, & Tabernero (2012)	22	Migrants	240	51.90	14.47	47.04	Cross-Sectional	Western
21	Brisset, Safdar, Lewis, & Sabatier (2010)	23	Students	112	48.00	25.80	46.68	Cross-Sectional	Western
22	Caligiuri, Joshi, & Lazarova (1999)	24	Expatriates	38	0.00	38.00	24.00	Cross-Sectional	Western
23	Cemalcilar, Falbo, & Stapleton (2005)	25	Students	280	Unknown	24.00	5.40	Cross-Sectional	Unspecified
24	Cetinkaya-Yildiz, Cakir, & Kondakci (2011)	26	Students	334	62.90	21.65	29.28	Cross-Sectional	Unspecified
25	Chapdelaine & Alexitch (2004)	27	Students	195	100.00	32.07	31.05	Cross-Sectional	Western
26	Chen (2010)	28	Expatriates	219	77.00	Unknown	31.44	Cross-Sectional	Non-Western
27	Chen, Benet-Martínez, & Harris Bond (2008)	29	Migrants	153	0.00	33.84	126.50	Cross-Sectional	Non-Western
27	Chen, Benet-Martínez, & Harris Bond (2008)	30	Migrants	67	17.90	28.51	42.50	Cross-Sectional	Non-Western
28	Chen, Kirkman, Kim, Farh, & Tangirala (2010)	31	Expatriates	556	95.00	44.00	31.68	Cross-Sectional	Unspecified
29	Chen, Mallinckrodt, & Mobley (2002)	32	Students	52	36.00	24.26	18.00	Cross-Sectional	Western
30	Chiu, Wu, Zhuang, & Hsu (2009)	33	Expatriates	171	85.00	38.20	20.95	Cross-Sectional	Non-Western
31	Chou (2012)	34	Migrants	449	12.70	34.10	Unknown	Longitudinal	Non-Western
32	Clement, Noels & Denault (2001)	35	Migrants	92	60.90	Unknown	Unknown	Cross-Sectional	Western
33	Cole (2011)	36	Exp. Families	238	18.90	37.00	Unknown	Cross-Sectional	Non-Western

34	Constantine, Okazaki & Utsey (2004)	37	Students	320	40.60	23.63	Unknown	Cross-Sectional	Western
35	Copeland & Norell (2002)	38	Exp. Families	194	0.00	43.00	28.80	Cross-Sectional	Western
36	Cross (1995)	39	Students	79	73.20	Unknown	Unknown	Cross-Sectional	Western
37	De Cieri, Dowling, & Taylor (1991)	40	Exp. Families	58	0.00	43.20	22.90	Longitudinal	Unspecified
38	Duru & Poyrazli (2011)	41	Students	229	60.00	26.40	40.80	Cross-Sectional	Western
39	Farcas (2012)	42	Expatriates	47	59.60	44.90	Unknown	Cross-Sectional	Western
39	Farcas (2012)	43	Expatriates	89	41.30	43.60	Unknown	Cross-Sectional	Western
40	Firth, Kirkman, & Kim (2014)	44	Expatriates	70	96.00	42.00	3.50	Longitudinal	Western
41	Frey & Roysircar (2006)	45	Students	57	65.00	27.00	24.00	Cross-Sectional	Western
41	Frey & Roysircar (2006)	46	Students	53	72.00	29.00	24.00	Cross-Sectional	Western
42	Furukawa & Shibayama (1993)	47	Students	188	27.70	17.50	0.00	Longitudinal	Western
43	Furukawa, Sarason & Sarason (1998)	48	Students	242	18.41	18.00	0.00	Longitudinal	Western
44	Galchenko & van de Vijver (2007)	49	Students	168	59.50	21.05	24.00	Cross-Sectional	Non-Western
45	Gao & Gudykunst (1990)	50	Students	121	38.00	24.44	22.80	Cross-Sectional	Unspecified
46	Gaudet, Clement, & Deuzeman (2005)	51	Migrants	100	36.00	23.06	156.96	Cross-Sectional	Western
47	Geeraert, Demoulin & Demes (2014)	52	Students	100	30.00	17.90	1.50	Longitudinal	Unspecified
48	Ghaffari & Çiftçi (2010)	53	Migrants	174	49.00	27.17	108.00	Cross-Sectional	Western
49	Gong (2003)	54	Students	85	Unknown	19.86	Unknown	Cross-Sectional	Unspecified
50	Gong & Fan (2006)	55	Students	153	63.00	26.00	29.00	Longitudinal	Unspecified
51	Grant-Vallone & Ensher (2001)	56	Expatriates	118	Unknown	44.00	120.00	Cross-Sectional	Western
52	Guerra & Pires França (2015)	57	Expatriates	89	53.90	44.58	44.40	Cross-Sectional	Non-Western
53	Hechanova-Alampay, Beehr,	58	Students	36	55.00	24.00	Unknown	Longitudinal	Unspecified

	Christiansen & Van Horn (2002)								
54	Hendrickson, Rosen & Aune (2010)	59	Students	84	34.50	28.00	33.00	Cross-Sectional	Unspecified
55	Herleman, Britt & Hashima (2008)	60	Exp. Families	104	0.00	44.46	38.00	Cross-Sectional	Unspecified
56	Hovey (2000)	61	Migrants	114	57.00	16.76	Unknown	Cross-Sectional	Western
57	Hovey & King (1996)	62	Migrants	70	67.00	33.70	111.24	Cross-Sectional	Western
58	Huff, Song, & Gresch (2014)	63	Expatriates	152	30.60	24.87	24.50	Cross-Sectional	Non-Western
59	Hwang, Wang, & Sodanine (2011)	64	Students	215	Unknown	Unknown	Unknown	Cross-Sectional	Unspecified
60	Jackson, Ray, & Bybell (2013)	65	Students	70	33.30	24.19	Unknown	Cross-Sectional	Unspecified
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	66	Migrants	547	42.00	37.80	98.40	Cross-Sectional	Western
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	67	Migrants	453	42.00	37.80	98.40	Cross-Sectional	Western
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	68	Migrants	269	42.00	37.80	98.40	Cross-Sectional	Western
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	69	Migrants	476	42.00	37.80	98.40	Cross-Sectional	Western
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	70	Migrants	382	42.00	37.80	98.40	Cross-Sectional	Western
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	71	Migrants	767	42.00	37.80	98.40	Cross-Sectional	Western
61	Jasinskaja-Lahti, Liebkind & Perhoniemi (2006)	72	Migrants	701	42.00	37.80	98.40	Cross-Sectional	Western
62	Jasinskaya-Lahti & Liebkind (2001)	73	Migrants	77	0.00	15.00	30.00	Cross-Sectional	Western
62	Jasinskaya-Lahti & Liebkind (2001)	74	Migrants	93	100.00	15.00	30.00	Cross-Sectional	Western
63	Jasinskaya-Lahti, Liebkind, Jaakkola, & Reuter (2006)	75	Migrants	926	53.20	38.94	89.28	Cross-Sectional	Western

63	Jasinskaya-Lahti, Liebkind, Jaakkola, & Reuter (2006)	76	Migrants	637	28.90	38.94	89.28	Cross-Sectional	Western
63	Jasinskaya-Lahti, Liebkind, Jaakkola, & Reuter (2006)	77	Migrants	796	32.10	38.94	89.28	Cross-Sectional	Western
64	Jasperse, Ward, & Jose (2012)	78	Migrants	153	0.00	28.30	102.00	Cross-Sectional	Western
65	Jenkins & Mockaitis (2010)	79	Expatriates	46	80.43	39.00	8.75	Cross-Sectional	Unspecified
66	Jhutty (2009)	80	Expatriates	124	62.10	38.40	Unknown	Cross-Sectional	Unspecified
67	Ji & Duan (2006)	81	Migrants	177	42.00	34.20	103.90	Cross-Sectional	Western
68	Jibeen & Khalid (2010)	82	Migrants	308	57.00	35.80	40.80	Cross-Sectional	Western
69	Johnson et al. (2003)	83	Expatriates	75	90.00	42.70	24.60	Longitudinal	Unspecified
70	Jung, Hecht, & Wadsworth (2007)	84	Students	218	65.00	23.50	1.50	Cross-Sectional	Western
71	Kaduvettoor-Davidson & Inman (2013)	85	Migrants	101	72.00	31.36	Unknown	Cross-Sectional	Western
72	Kagan & Cohen (1990)	86	Students	85	67.40	Unknown	Unknown	Cross-Sectional	Western
73	Kashima & Abu-Rayya (2014)	87	Migrants	5,033	57.08	34.56	5.00	Longitudinal	Western
74	Kashima & Loh (2006)	88	Students	100	33.00	23.50	27.70	Cross-Sectional	Western
75	Kawai & Strange (2014)	89	Expatriates	118	99.00	40.00	69.40	Cross-Sectional	Western
76	Kim & McKay-Semmler (2013)	90	Migrants	51	51.00	36.80	138.00	Cross-Sectional	Unspecified
77	Kline & Liu (2005)	91	Students	99	53.50	25.60	28.50	Cross-Sectional	Western
78	Kraimer & Wayne (2004)	92	Expatriates	230	97.00	44.00	24.00	Cross-Sectional	Unspecified
79	Kraimer, Wayne, & Jaworski (2001)	93	Expatriates	213	98.00	43.70	23.00	Cross-Sectional	Unspecified
80	Lam (2007)	94	Students	122	38.52	24.20	52.80	Cross-Sectional	Western
81	Lee & Ciftci (2014)	95	Students	330	61.00	23.74	Unknown	Cross-Sectional	Western
82	Lee, Koeske, & Sales (2004)	96	Students	74	70.00	30.00	31.00	Cross-Sectional	Western
83	Lee, Lee & Jang (2011)	97	Students	166	35.54	24.68	34.08	Cross-Sectional	Non-Western
84	Lee, Park & Kim (2009)	98	Students	76	61.84	25.40	35.52	Cross-Sectional	Western

85	Leong (2007)	99	Students	166	51.80	21.68	Unknown	Longitudinal	Western
86	Leong & Ward (2000)	100	Expatriates	106	75.50	23.67	24.60	Cross-Sectional	Non-Western
87	Li & Gasser (2005)	101	Students	117	38.46	26.29	25.92	Cross-Sectional	Western
88	Lian & Tsang (2010)	102	Students	218	48.00	23.54	Unknown	Cross-Sectional	Non-Western
89	Liebkind & Jasinskaya-Lahti (2000)	103	Migrants	296	48.00	28.80	61.50	Cross-Sectional	Western
89	Liebkind & Jasinskaya-Lahti (2000)	104	Migrants	109	48.00	28.80	91.20	Cross-Sectional	Western
89	Liebkind & Jasinskaya-Lahti (2000)	105	Migrants	129	48.00	28.80	61.50	Cross-Sectional	Western
89	Liebkind & Jasinskaya-Lahti (2000)	106	Migrants	96	48.00	28.80	54.00	Cross-Sectional	Western
89	Liebkind & Jasinskaya-Lahti (2000)	107	Migrants	172	48.00	28.80	52.80	Cross-Sectional	Western
89	Liebkind & Jasinskaya-Lahti (2000)	108	Migrants	123	48.00	28.80	73.20	Cross-Sectional	Western
89	Liebkind & Jasinskaya-Lahti (2000)	109	Migrants	221	48.00	28.80	54.00	Cross-Sectional	Western
90	Liebkind, Jasinskaja-Lahti & Solheim (2004)	110	Migrants	175	48.00	15.40	86.52	Cross-Sectional	Western
91	Lin (2008)	111	Students	186	37.60	22.04	24.82	Cross-Sectional	Western
91	Lin (2008)	112	Students	263	58.10	20.75	19.20	Cross-Sectional	Western
92	Lin, Peng, Kim, Kim, & LaRose (2011)	113	Students	195	38.50	26.00	24.00	Cross-Sectional	Western
93	Liu & Shaffer (2005)	114	Expatriates	147	Unknown	43.30	Unknown	Cross-Sectional	Non-Western
94	Mak & Nesdale (2001)	115	Migrants	372	47.58	40.00	Unknown	Cross-Sectional	Western
95	Martinez Garcia, Garcia Ramirez & Maya Jariego (2002)	116	Migrants	55	0.00	32.00	84.00	Cross-Sectional	Western
95	Martinez Garcia, Garcia Ramirez & Maya Jariego (2002)	117	Migrants	50	0.00	28.90	108.00	Cross-Sectional	Western

96	Masgoret (2006)	118	Students	107	18.11	20.87	Unknown	Longitudinal	Western
97	McGinley (2008)	119	Expatriates	110	48.00	44.06	Unknown	Cross-Sectional	Non-Western
98	Mesch, Turjeman, & Fishman (2008)	120	Migrants	1,420	45.00	15.67	42.00	Longitudinal	Non-Western
99	Miller, Kim, & Benet-Martínez (2011)	121	Students	259	42.50	20.40	138.84	Cross-Sectional	Western
99	Miller, Kim, & Benet-Martínez (2011)	122	Migrants	471	30.40	33.32	279.48	Cross-Sectional	Western
100	Misra, Crist, & Burant (2003)	123	Students	143	43.36	24.70	Unknown	Cross-Sectional	Western
101	Miyamoto & Kuhlman (2001)	124	Students	240	50.00	11.50	28.50	Cross-Sectional	Western
102	Mohr & Klein (2004)	125	Exp. Families	43	0.00	40.00	17.00	Cross-Sectional	Western
103	Moore (2009)	126	Exp. Families	120	29.90	40.00	27.00	Cross-Sectional	Unspecified
104	Nakash, Nagar, Shosani, Zubida, & Harper (2012)	127	Migrants	125	46.00	14.55	Unknown	Cross-Sectional	Non-Western
105	Neto & Barros (2000)	128	Migrants	95	Unknown	16.10	86.40	Cross-Sectional	Western
106	Ng, Tsang, & Lian (2013)	129	Students	212	52.00	24.00	Unknown	Cross-Sectional	Non-Western
107	Niehoff & Maciocha (2008)	130	Expatriates	74	60.80	29.00	37.20	Cross-Sectional	Unspecified
108	Nilsson, Butler, Shouse, & Joshi (2008)	131	Students	76	58.00	26.63	26.85	Cross-Sectional	Western
109	Noh & Kaspar (2003)	132	Migrants	180	48.40	49.30	236.40	Cross-Sectional	Western
110	Olaniran (1993)	133	Students	102	Unknown	26.00	42.00	Cross-Sectional	Unspecified
111	Ong & Ward (2005)	134	Mixed	416	53.05	30.20	18.96	Cross-Sectional	Non-Western
112	Oppedal (2011)	135	Migrants	103	50.90	13.00	Unknown	Cross-Sectional	Western
112	Oppedal (2011)	136	Migrants	90	50.90	13.00	Unknown	Cross-Sectional	Western
112	Oppedal (2011)	137	Migrants	94	50.90	13.00	Unknown	Cross-Sectional	Western
113	Osman-Gani & Rockstuhl (2009)	138	Expatriates	169	85.00	35.20	Unknown	Cross-Sectional	Unspecified
114	Palthe (2004)	139	Expatriates	196	86.00	45.00	Unknown	Cross-Sectional	Unspecified
115	Pan (2011)	140	Students	400	50.00	26.90	18.80	Cross-Sectional	Non-Western

116	Pan, Wong, Joubert & Chan (2008)	141	Students	227	33.00	Unknown	Unknown	Cross-Sectional	Western
116	Pan, Wong, Joubert & Chan (2008)	142	Students	400	50.00	26.80	18.80	Cross-Sectional	Non-Western
117	Pantelidou & Craig (2006)	143	Students	133	47.00	23.00	17.80	Cross-Sectional	Western
118	Park & Rubin (2012)	144	Migrants	516	46.80	39.36	123.48	Cross-Sectional	Western
119	Pedersen, Neighbors, Larimer, & Lee (2011)	145	Students	248	19.00	21.97	3.10	Cross-Sectional	Unspecified
120	Peltokorpi (2008)	146	Expatriates	110	60.00	33.47	49.00	Cross-Sectional	Unspecified
121	Perrucci & Hu (1995)	147	Students	428	76.00	Unknown	Unknown	Cross-Sectional	Unspecified
122	Podsiadlowski, Vauclair, Spiess & Stroppa (2013)	148	Expatriates	124	23.70	29.17	85.00	Cross-Sectional	Unspecified
123	Polanco-Roman & Miranda (2013)	149	Students	143	20.00	18.60	Unknown	Longitudinal	Unspecified
124	Polek & Schoon (2008)	150	Migrants	176	0.00	34.14	78.66	Cross-Sectional	Western
125	Polek, Wöhrle & van Oudenhoven (2010)	151	Migrants	792	28.00	35.40	104.94	Cross-Sectional	Western
126	Poyrazli & Kavanaugh (2006)	152	Students	149	53.00	28.19	Unknown	Cross-Sectional	Western
127	Rahman & Rollock (2004)	153	Students	199	84.00	21.40	30.50	Cross-Sectional	Western
128	Rienties & Tempelaar (2013)	154	Students	1,375	56.00	Unknown	Unknown	Cross-Sectional	Western
129	Rousseau, Hassan, Moreau, & Thombs (2011)	155	Migrants	1,898	48.83	36.90	109.20	Cross-Sectional	Western
130	Sam (2001)	156	Students	304	52.30	29.60	28.08	Cross-Sectional	Unspecified
131	Sam & Berry (1995)	157	Migrants	568	47.70	13.40	Unknown	Cross-Sectional	Western
132	Schaafsma (2011)	158	Migrants	320	47.50	30.00	Unknown	Cross-Sectional	Western
133	Schmitt, Spears & Branscombe (2003)	159	Students	99	64.00	22.00	36.00	Cross-Sectional	Western
134	Searle & Ward (1990)	160	Students	105	46.70	21.23	27.06	Cross-Sectional	Western
135	Selmer (2002)	161	Expatriates	213	85.00	42.50	48.00	Cross-Sectional	Western
136	Selmer (2006)	162	Expatriates	165	95.00	44.68	71.76	Cross-Sectional	Non-Western

137	Selmer & Lauring (2009)	163	Expatriates	428	70.85	40.11	62.04	Cross-Sectional	Unspecified
138	Shaffer & Harrison (1998)	164	Expatriates	445	89.00	43.00	Unknown	Cross-Sectional	Unspecified
139	Shaffer & Harrison (2001)	165	Exp. Families	221	5.00	41.30	31.19	Cross-Sectional	Unspecified
140	Shueh (2007)	166	Students	119	54.60	26.88	28.80	Cross-Sectional	Western
141	Shupe (2007)	167	Students	206	61.00	27.00	Unknown	Cross-Sectional	Western
142	Sirin et al. (2013)	168	Migrants	289	45.00	16.23	66.84	Longitudinal	Western
143	Sonderegger & Barrett (2004)	169	Migrants	148	49.40	12.25	Unknown	Cross-Sectional	Western
143	Sonderegger & Barrett (2004)	170	Migrants	125	49.40	12.25	Unknown	Cross-Sectional	Western
144	Stahl & Caligiuri (2005)	171	Expatriates	116	100.00	44.40	49.50	Cross-Sectional	Unspecified
145	Sumer, Poyrazli, & Grahame (2008)	172	Students	440	57.00	26.15	34.80	Cross-Sectional	Western
146	Swami (2009)	173	Students	81	46.00	21.42	20.73	Cross-Sectional	Western
146	Swami (2009)	174	Students	110	59.00	21.30	24.57	Cross-Sectional	Western
147	Swami, Arteche, Chamorro-Premuzic, & Furnham (2010)	175	Students	249	49.25	21.24	21.20	Cross-Sectional	Western
148	Szabo & Ward (2014)	176	Migrants	281	49.10	29.23	12.36	Cross-Sectional	Unspecified
149	Takeuchi, Lepak, Marinova & Yun (2007)	177	Expatriates	170	100.00	39.00	32.82	Cross-Sectional	Western
149	Takeuchi, Lepak, Marinova & Yun (2007)	178	Exp. Families	170	0.00	36.00	31.67	Cross-Sectional	Western
150	Takeuchi, Yun, & Russel (2002)	179	Expatriates	170	100.00	39.00	33.00	Cross-Sectional	Western
151	Terry, Pelly, & Lalonde (2006)	180	Students	113	58.41	22.50	34.10	Longitudinal	Western
152	Tonsing (2013)	181	Migrants	229	45.00	30.60	163.20	Cross-Sectional	Non-Western
152	Tonsing (2013)	182	Migrants	218	51.00	32.27	120.80	Cross-Sectional	Non-Western
153	Torres, Driscoll, & Voell (2012)	183	Migrants	669	36.40	39.00	24.46	Cross-Sectional	Western

154	Toyokawa & Toyokawa (2002)	184	Students	84	48.20	20.98	9.00	Cross-Sectional	Western
155	Trice (2004)	185	Students	497	67.00	27.40	Unknown	Cross-Sectional	Western
156	Tsang (2001)	186	Students	210	55.00	25.50	32.75	Cross-Sectional	Non-Western
156	Tsang (2001)	187	Expatriates	91	89.00	Unknown	38.16	Cross-Sectional	Non-Western
157	Tummala-Narra & Claudius (2013)	188	Migrants	103	53.70	15.07	76.08	Cross-Sectional	Western
158	Upvall (1990)	189	Students	101	82.20	25.50	23.00	Cross-Sectional	Western
159	van der Bank & Rothman (2006)	190	Expatriates	95	87.00	Unknown	Unknown	Cross-Sectional	Unspecified
160	Van Der Zee , Ali & Haaksma (2007)	191	Exp. Families	104	40.40	13.20	39.24	Cross-Sectional	Unspecified
161	Van der Zee, Ali & Salome (2005)	192	Expatriates	72	95.80	46.21	Unknown	Cross-Sectional	Unspecified
161	Van der Zee, Ali & Salome (2005)	193	Exp. Families	72	5.40	45.16	Unknown	Cross-Sectional	Unspecified
162	Van Erp, Van der Zee, Giebels, & Van Duijn (2013)	194	Expatriates	45	90.80	40.30	21.00	Longitudinal	Unspecified
162	Van Erp, Van der Zee, Giebels, & Van Duijn (2013)	195	Exp. Families	45	11.20	40.30	21.00	Longitudinal	Unspecified
163	Van Vianen, De Pater, Kristof-Brown, & Johnson (2004).	196	Expatriates	208	86.00	39.00	24.00	Longitudinal	Unspecified
164	VanderWielen (2001)	197	Expatriates	170	84.10	39.70	30.50	Cross-Sectional	Unspecified
165	Vang (2009)	198	Migrants	245	54.70	33.00	Unknown	Cross-Sectional	Western
166	Verkuyten & Nekuee (1999)	199	Migrants	67	60.00	32.30	88.80	Cross-Sectional	Western
167	Vohra (1995)	200	Migrants	189	58.20	43.68	204.48	Cross-Sectional	Western
168	Wang & Kanungo (2004)	201	Expatriates	166	81.10	Unknown	27.95	Cross-Sectional	Non-Western
169	Wang & Nayir (2006)	202	Expatriates	61	81.00	Unknown	Unknown	Cross-Sectional	Non-Western
169	Wang & Nayir (2006)	203	Expatriates	69	94.00	Unknown	Unknown	Cross-Sectional	Non-Western
170	Wang & Takeuchi (2007)	204	Expatriates	183	87.30	37.19	24.72	Cross-Sectional	Non-Western

171	Wang, Heppner, Fu, Zhao, Li, & Chuang (2012)	205	Students	507	57.20	Unknown	Unknown	Longitudinal	Western
172	Ward & Kennedy (1992)	206	Mixed	84	58.30	37.80	25.20	Cross-Sectional	Non-Western
173	Ward & Kennedy (1993a)	207	Students	178	24.16	17.35	2.70	Cross-Sectional	Unspecified
174	Ward & Kennedy (1993b)	208	Students	145	52.40	21.93	33.40	Cross-Sectional	Western
174	Ward & Kennedy (1993b)	209	Students	156	70.50	20.91	32.60	Cross-Sectional	Non-Western
175	Ward & Searle (1991)	210	Students	155	70.97	26.10	21.80	Cross-Sectional	Western
176	Ward, Rana-Deuba (2000)	211	Expatriates	104	54.80	39.60	29.70	Cross-Sectional	Unspecified
177	Ward, Stuart, & Kus (2011)	212	Migrants	462	51.00	27.45	Unknown	Cross-Sectional	Western
177	Ward, Stuart, & Kus (2011)	213	Migrants	304	46.00	38.27	Unknown	Cross-Sectional	Western
178	Waxin (2004)	214	Expatriates	224	85.00	38.00	19.00	Cross-Sectional	Non-Western
179	Wei et al. (2008)	215	Students	354	58.00	26.58	31.32	Cross-Sectional	Western
180	Wei et al. (2012)	216	Students	143	47.00	28.03	35.52	Cross-Sectional	Western
181	Wei, Wang, Heppner, & Du (2012)	217	Students	383	48.00	24.90	29.70	Cross-Sectional	Western
182	Wu & Ang (2011)	218	Expatriates	169	40.40	18.90	Unknown	Cross-Sectional	Non-Western
183	Wu & Mak (2012)	219	Students	180	80.00	38.10	32.40	Longitudinal	Non-Western
184	Yakunina, Weigold, Weigold, Hercegovac, & Elsayed (2013)	220	Students	336	49.00	25.10	30.60	Cross-Sectional	Western
185	Yang & Clum (1994)	221	Students	101	72.28	23.49	35.10	Cross-Sectional	Western
186	Yang & Clum (1995)	222	Students	101	72.30	23.49	35.10	Cross-Sectional	Western
187	Yang, Noels, & Saumure (2006)	223	Students	81	44.00	24.35	25.08	Cross-Sectional	Western
188	Ye (2005)	224	Students	115	39.10	28.30	38.40	Cross-Sectional	Western
189	Ye (2006)	225	Students	135	46.00	27.80	34.80	Cross-Sectional	Western
190	Ying (1995)	226	Migrants	143	49.00	36.78	86.10	Cross-Sectional	Western
191	Ying (2005)	227	Students	216	56.70	25.42	Unknown	Longitudinal	Western
192	Ying & Han (2006)	228	Students	155	51.60	25.52	Unknown	Longitudinal	Western
193	Ying & Han (2008)	229	Students	155	51.60	25.52	Unknown	Longitudinal	Western

194	Ying & Liese (1991)	230	Students	171	53.22	25.60	Unknown	Longitudinal	Western
195	Yip, Gee, & Takeuchi (2008)	231	Migrants	2,047	52.52	40.30	238.68	Cross-Sectional	Western
196	Yoon, Hacker, Hewitt, Abrams, & Cleary (2012)	232	Students	273	52.00	21.50	Unknown	Cross-Sectional	Western
197	Yoon, Lee, & Goh (2008)	233	Migrants	188	39.40	44.90	174.36	Cross-Sectional	Western
198	Zhang & Goodson (2011)	234	Students	508	56.50	26.19	14.00	Cross-Sectional	Western
199	Zhang, Smith, Swisher, Fu, & Fogarty (2011)	235	Exp. Families	40	0.00	30.24	Unknown	Cross-Sectional	Western
200	Zimmermann (1995)	236	Students	101	70.30	24.70	34.80	Cross-Sectional	Unspecified
201	Zlobina, Basabe, Paez & Furnham (2006)	237	Migrants	88	55.00	32.80	55.20	Cross-Sectional	Western
201	Zlobina, Basabe, Paez & Furnham (2006)	238	Migrants	98	55.00	32.80	55.20	Cross-Sectional	Western
201	Zlobina, Basabe, Paez & Furnham (2006)	239	Migrants	139	55.00	32.80	55.20	Cross-Sectional	Western
201	Zlobina, Basabe, Paez & Furnham (2006)	240	Migrants	105	55.00	32.80	55.20	Cross-Sectional	Western
201	Zlobina, Basabe, Paez & Furnham (2006)	241	Migrants	85	55.00	32.80	55.20	Cross-Sectional	Western
			Overall *N*:	59,189					

Appendix B (*continued*)

ID	Sample ID	A_CULTURAL_DISTANCE								B SOCIAL INTERACTION							
		Self-Rated Distance				Externally Measured Distance				Quantity - Host Nationals				Quantity - Co-Nationals			
		ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA
1	1																
2	2																
3	3																
4	4																
5	5	.11	.05	.17						.16	.40	-.08					
6	6																
7	7																
8	8													.03		.03	
9	9																
10	10	.10		.10													
11	11																
12	12									.13	.14	.11	.12				
13	13									.24	.28	.20					
14	14																
15	15																
16	16									.18	.40		-.04				
17	17	-.14	-.17		-.12					.22	.34		.10	.18	.15		.21
18	18	-.10	-.23		.02												
18	19	-.18	-.18														
19	20									-.02	-.08	.03					
20	21																

20	22										
21	23										
22	24										
23	25										
24	26										
25	27							.43	.43		
26	28										
27	29										
27	30										
28	31	-.14			-.14						
29	32										
30	33										
31	34										
32	35										
33	36										
34	37										
35	38										
36	39										
37	40	-.10		-.10							
38	41										
39	42										
39	43										
40	44										
41	45										
41	46										
42	47									.28	.28
43	48									.14	.14
44	49	-.31	-.47	-.14							
45	50	.03						.09			

46	51												
47	52							-.05		-.05		-.07	-.13
48	53												
49	54				-.25	-.20	-.29	.41	.39		.43		
50	55												
51	56												
52	57												
53	58	-.18	-.30	-.05				.14	.24	.03			
54	59							.21		.21		-.24	-.24
55	60												
56	61												
57	62												
58	63				.04	.03	.06						
59	64												
60	65												
61	66												
61	67												
61	68												
61	69												
61	70												
61	71												
61	72												
62	73							.01		.01			
62	74							.11		.11			
63	75							-.01		-.01		.00	.00
63	76							.01		.01		-.01	-.01
63	77							-.04		-.04		-.01	-.01
64	78												
65	79	-.84	-.84		-.80	-.80							

66	80	-.29	-.35	-.23												
67	81															
68	82															
69	83									-.03	-.03					
70	84															
71	85															
72	86												-.49	-.49		
73	87					.04		.04								
74	88									.17	.08	.26	.02	.06	-.03	
75	89															
76	90									.21	.24	.18	.01	-.04	.05	
77	91															
78	92					-.11	-.11									
79	93	-.15	-.33	-.12	.01											
80	94															
81	95															
82	96															
83	97												.10		.10	
84	98												.16			.16
85	99															
86	100	-.20		-.20						-.28		-.28	-.10		-.10	
87	101									.61	.61					
88	102															
89	103															
89	104															
89	105															
89	106															
89	107															
89	108															

89	109													
90	110													
91	111													
91	112													
92	113						.07		.01	.13				
93	114	-.12	-.17		-.06		.03	-.02		.07				
94	115						.24		.24		.15		.15	
95	116						.40		.40					
95	117						.05		.05					
96	118	-.04	-.04				.21	.21			-.06	-.06		
97	119						.12	.12						
98	120													
99	121													
99	122													
100	123													
101	124													
102	125	-.32	-.32				.17	.17						
103	126	-.35	-.35											
104	127													
105	128													
106	129													
107	130													
108	131													
109	132													
110	133													
111	134													
112	135													
112	136													
112	137													

113	138												
114	139	-.16	-.14		-.17								
115	140												
116	141	-.15		-.15									
116	142	-.22		-.22									
117	143											.14	.07
118	144												
119	145									.19	.19	-.18	-.18
120	146					.12	.07		.16				
121	147									.08	.08		
122	148												
123	149												
124	150												
125	151												
126	152					-.26	-.18	-.24	-.24				
127	153												
128	154												
129	155												
130	156												
131	157												
132	158												
133	159												
134	160	-.35	-.35							.29	.29		
135	161	-.12	-.18	-.02	-.16								
136	162	-.05	-.11		.01								
137	163	-.22	-.28		-.17								
138	164	-.17	-.27		-.07								
139	165	-.30	-.30										
140	166												

141	167	.05	.07	.04											
142	168														
143	169														
143	170														
144	171	-.24	-.43		-.05										
145	172														
146	173	-.58	-.58												
146	174	-.62	-.62												
147	175	-.34	-.59	-.09											
148	176														
149	177	-.07	-.07												
149	178	-.06	-.06												
150	179	-.21	-.14		-.27										
151	180														
152	181														
152	182														
153	183														
154	184														
155	185									.18	.18			-.20	-.20
156	186									.32	.32				
156	187									.53	.53				
157	188														
158	189									.20		.20			
159	190														
160	191														
161	192														
161	193														
162	194					.12	.32	-.08							
162	195					-.08	-.12	-.04							

163	196	-.10	-.21		.01											
164	197															
165	198															
166	199															
167	200															
168	201									.04		.04				
169	202															
169	203															
170	204															
171	205															
172	206	-.26	-.26							-.21		-.21				
173	207	-.45	-.45							.26	.27	.24		-.17		-.17
174	208	-.23	-.23							.45	.45					
174	209	-.18	-.18							.13	.28	-.02		-.10	-.10	
175	210	-.34	-.35	-.32						.22	.22			-.24		-.24
176	211									-.10		-.10		-.05		-.05
177	212	-.03		-.03												
177	213															
178	214															
179	215															
180	216															
181	217															
182	218					.03	.11		-.05							
183	219															
184	220															
185	221															
186	222															
187	223									.26	.23	.28		.09	.14	.05
188	224															

189	225										
190	226					.08		.08		-.05	-.05
191	227	-.20		-.20							
192	228					.14		-.01		.03	-.02
193	229									-.04	-.05
194	230					.04		.04		.01	.01
195	231										
196	232										
197	233										
198	234										
199	235										
200	236					.33	.49		.18		
201	237	-.02	-.02								
201	238	-.33	-.33								
201	239	.01	.01								
201	240	-.56	-.56								
201	241	.03	.03								

Appendix B (*continued*)

ID	Sample ID	STRESSORS (1)											
		Overall Stressors				Occupational Stressors				Perceived Discrimination			
		ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA
1	1												
2	2	-.12	-.12	-.12									
3	3	-.29		-.29									
4	4												
5	5	-.12	-.11	-.14						-.12	-.10	-.15	
6	6	-.32	-.22	-.30	-.45								
7	7	-.01		-.01									
8	8												
9	9	.05		.05						.05		.05	
10	10												
11	11												
12	12	-.29	-.32	-.29	-.27					-.37	-.38	-.36	-.27
13	13												
14	14	-.37		-.37									
15	15	-.30	-.36	-.23									
16	16												
17	17												
18	18												
18	19												
19	20												
20	21	-.19		-.19						-.19		-.19	
20	22	-.23		-.23						-.23		-.23	
21	23												
22	24	-.38								-.38			
23	25												
24	26												
25	27												
26	28												
27	29	-.26		-.26									
27	30	-.56		-.56									
28	31												

29	32	-.35		-.35			-.26		-.26
30	33								
31	34	-.16		-.16			-.21		-.21
32	35	-.08		-.08			-.08		-.08
33	36								
34	37	-.69		-.69					
35	38	-.16		-.16					
36	39								
37	40								
38	41	-.24		-.24			-.24		-.24
39	42								
39	43								
40	44	-.21		-.21	-.20				
41	45	-.23	-.23				-.23	-.23	
41	46	-.38	-.38				-.38	-.38	
42	47								
43	48								
44	49								
45	50								
46	51	-.28		-.28			-.11		-.11
47	52								
48	53	.06		.06			.06		.06
49	54								
50	55								
51	56								
52	57	-.32	-.17	-.47					
53	58								
54	59								
55	60	-.48	-.46	-.50					
56	61	-.29		-.29					
57	62	-.14	.04	-.32					
58	63								
59	64	-.29							
60	65	-.42	-.49	-.35					
61	66	-.30		-.30			-.30		-.30
61	67	-.14		-.14			-.14		-.14
61	68	-.16		-.16			-.16		-.16
61	69	-.18		-.18			-.18		-.18
61	70	-.22		-.22			-.22		-.22
61	71	-.24		-.24			-.24		-.24

61	72	-.13		-.13			-.13	-.13	
62	73	-.35		-.35			-.35	-.35	
62	74	-.23		-.23			-.23	-.23	
63	75	-.39		-.39			-.39	-.39	
63	76	-.33		-.33			-.33	-.33	
63	77	-.30		-.30			-.30	-.30	
64	78	.05		.05			.05	.05	
65	79								
66	80								
67	81	-.32	-.25	-.39					
68	82	-.34		-.34					
69	83								
70	84	-.09		-.09			-.09	-.09	
71	85	-.35		-.35			-.35	-.35	
72	86								
73	87	-.02		-.02					
74	88								
75	89								
76	90								
77	91								
78	92								
79	93								
80	94	-.29		-.29			-.29	-.29	
81	95								
82	96	-.19	-.16	-.22					
83	97								
84	98								
85	99	.00	-.06	.05					
86	100	-.32		-.32			-.32	-.32	
87	101								
88	102								
89	103	-.19		-.19			-.19	-.19	
89	104	-.36		-.36			-.36	-.36	
89	105	-.44		-.44			-.44	-.44	
89	106	-.29		-.29			-.29	-.29	
89	107	-.46		-.46			-.46	-.46	
89	108	-.60		-.60			-.60	-.60	
89	109	-.25		-.25			-.25	-.25	
90	110	-.18		-.21	-.15		-.21	-.21	-.15
91	111	-.41		-.41			-.41	-.41	

91	112	-.22		-.22				-.22		-.22
92	113									
93	114									
94	115	-.13		-.13				-.13		-.13
95	116									
95	117									
96	118									
97	119	-.08	-.08					-.08	-.08	
98	120	-.14		-.14				-.25		-.25
99	121	-.29		-.29				-.26		-.26
99	122	-.18		-.18				-.15		-.15
100	123	-.44		-.44						
101	124									
102	125									
103	126									
104	127	-.18		-.18				-.09		-.09
105	128	-.29	-.31	-.28				-.29	-.31	-.28
106	129									
107	130	-.34	-.34							
108	131	-.36	-.36		-.29	-.29		-.42	-.42	
109	132	-.28		-.28				-.30		-.30
110	133									
111	134									
112	135	-.13		-.13				-.22		-.22
112	136	.02		.02				-.09		-.09
112	137	-.14		-.14				-.22		-.22
113	138	-.31	-.31							
114	139									
115	140	-.40		-.40						
116	141	-.26		-.26	-.33		-.33	-.13		-.13
116	142	-.24		-.24	-.24		-.24			
117	143									
118	144	-.30	-.30	-.30						
119	145									
120	146									
121	147	-.02		-.02				.00		.00
122	148									
123	149	-.33		-.33				-.30		-.30
124	150	-.36		-.36						
125	151	-.37		-.37				-.37		-.37

126	152											
127	153	-.44		-.44					-.44		-.44	
128	154											
129	155	.04		.04					.04		.04	
130	156	-.18	-.44	-.03	-.07	.04	.04	.01	-.27	-.44	-.11	-.14
131	157											
132	158	-.11		-.11					-.11		-.11	
133	159	-.20		-.20					-.20		-.20	
134	160	-.25		-.25								
135	161											
136	162											
137	163											
138	164											
139	165	-.22	-.22									
140	166	-.31	-.31						-.19	-.19		
141	167	-.37	-.47	-.28		-.30	-.30					
142	168	-.26		-.26								
143	169											
143	170											
144	171	-.33	-.40		-.26							
145	172											
146	173	-.85	-.85						-.85	-.85		
146	174	-.55	-.55						-.55	-.55		
147	175	-.45	-.66	-.24					-.44	-.74	-.14	
148	176	-.44	-.47	-.41								
149	177											
149	178											
150	179											
151	180	-.07	-.04	-.16	-.02							
152	181	-.20		-.20					-.22		-.22	
152	182	-.17		-.17					-.24		-.24	
153	183	-.35		-.35					-.28		-.28	
154	184											
155	185											
156	186											
156	187											
157	188	-.22		-.22					-.22		-.22	
158	189											
159	190	-.21				-.24						
160	191											

161	192	-.14		-.14		-.05		-.05					
161	193	-.14		-.14									
162	194												
162	195												
163	196												
164	197	-.33	-.31	-.35		-.29		-.29					
165	198	-.07	.02	-.15									
166	199	-.28		-.28						-.28		-.28	
167	200	-.20		-.20						-.36		-.36	
168	201												
169	202												
169	203												
170	204	-.21	-.19		-.22	-.19	-.19		-.22				
171	205	-.28		-.28									
172	206	-.25		-.25									
173	207	-.28		-.28									
174	208	-.27		-.27									
174	209	-.19		-.19									
175	210												
176	211												
177	212												
177	213	-.22		-.22						-.22		-.22	
178	214												
179	215	-.16		-.16						-.16		-.16	
180	216	-.42		-.42									
181	217	-.26		-.26						-.26		-.26	
182	218												
183	219	.03	.24	-.18									
184	220	-.44		-.44									
185	221	-.41		-.41									
186	222	-.39		-.39									
187	223	-.47	-.53	-.41									
188	224	-.43	-.52	-.34						-.43	-.52	-.34	
189	225												
190	226												
191	227												
192	228	-.34		-.40									
193	229	.03											
194	230	-.16		-.16		-.19		-.19					
195	231	-.17		-.17						-.17		-.17	

196	232	-.14	-.15	-.14		-.06	-.05	-.07
197	233							
198	234							
199	235	-.26		-.26				
200	236							
201	237	-.16	-.16			-.34	-.34	
201	238	-.35	-.35			-.70	-.70	
201	239	-.41	-.41			-.50	-.50	
201	240	-.31	-.31			-.56	-.56	
201	241	-.41	-.41			-.51	-.51	

Appendix B (*continued*)

ID	Sample ID	STRESSORS (2)										
		Acculturative Stressors			General Stressors				Low Social Status			
		ALL	SCA	PSA	ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA
1	1											
2	2								-.12	-.12	-.12	
3	3				-.29		-.29					
4	4											
5	5								-.13	-.12	-.14	
6	6								-.32	-.22	-.30	-.45
7	7	-.01		-.01								
8	8											
9	9											
10	10											
11	11											
12	12								-.25	-.27	-.22	-.27
13	13											
14	14	-.50		-.50	-.24		-.24					
15	15								-.30	-.36	-.23	
16	16											
17	17											
18	18											
18	19											
19	20											
20	21											
20	22											
21	23											
22	24											
23	25											
24	26											
25	27											
26	28											
27	29	-.26		-.26								
27	30	-.56		-.56								
28	31											
29	32	-.43		-.43								

30	33										
31	34								-.12		-.12
32	35										
33	36										
34	37	-.69		-.69							
35	38				-.16		-.16				
36	39										
37	40										
38	41										
39	42										
39	43										
40	44				-.21		-.21	-.20			
41	45										
41	46										
42	47										
43	48										
44	49										
45	50										
46	51				-.46		-.46				
47	52										
48	53										
49	54										
50	55										
51	56										
52	57								-.32	-.17	-.47
53	58										
54	59										
55	60				-.48	-.46	-.50				
56	61	-.40		-.40					-.18		-.18
57	62	-.14	.04	-.32							
58	63										
59	64				-.29						
60	65	-.42	-.49	-.35							
61	66										
61	67										
61	68										
61	69										
61	70										
61	71										
61	72										

62	73							
62	74							
63	75							
63	76							
63	77							
64	78							
65	79							
66	80							
67	81	-.44	-.48	-.39		-.03	-.03	
68	82	-.42		-.42		-.26		-.26
69	83							
70	84							
71	85							
72	86							
73	87					-.02		-.02
74	88							
75	89							
76	90							
77	91							
78	92							
79	93							
80	94							
81	95							
82	96	-.47	-.37	-.56		.09	.05	.12
83	97							
84	98							
85	99					.00	-.06	.05
86	100							
87	101							
88	102							
89	103							
89	104							
89	105							
89	106							
89	107							
89	108							
89	109							
90	110							
91	111							
91	112							

92	113								
93	114								
94	115								
95	116								
95	117								
96	118								
97	119								
98	120						-.04		-.04
99	121	-.32		-.32					
99	122	-.20		-.20					
100	123	-.44		-.44					
101	124								
102	125								
103	126								
104	127						-.28		-.28
105	128								
106	129								
107	130						-.34	-.34	
108	131								
109	132						-.25		-.25
110	133								
111	134								
112	135						-.03		-.03
112	136						.12		.12
112	137						-.06		-.06
113	138						-.31	-.31	
114	139								
115	140	-.40		-.40					
116	141	-.32		-.32					
116	142	-.28		-.28					
117	143								
118	144	-.43	-.38	-.49			-.17	-.22	-.12
119	145								
120	146								
121	147						-.04		-.04
122	148								
123	149	-.28		-.28	-.41	-.41			
124	150						-.36		-.36
125	151								
126	152								

127	153											
128	154											
129	155											
130	156											
131	157											
132	158											
133	159											
134	160				-.25		-.25					
135	161											
136	162											
137	163											
138	164											
139	165				-.22	-.22						
140	166											
141	167	-.36	-.47	-.25								
142	168	-.26		-.26								
143	169											
143	170											
144	171				-.40	-.40		-.26				
145	172											
146	173											
146	174											
147	175								-.46	-.58	-.34	
148	176				-.44	-.47	-.41					
149	177											
149	178											
150	179											
151	180								-.07	-.04	-.16	-.02
152	181	-.31		-.31					-.09		-.09	
152	182	-.28		-.28					.01		.01	
153	183	-.41		-.41								
154	184											
155	185											
156	186											
156	187											
157	188											
158	189											
159	190	-.17										
160	191											
161	192				-.24		-.24					

161	193				-.14		-.14			
162	194									
162	195									
163	196									
164	197				-.35	-.31	-.40			
165	198							-.07	.02	-.15
166	199									
167	200							-.04		-.04
168	201									
169	202									
169	203									
170	204									
171	205	-.28		-.28						
172	206				-.25		-.25			
173	207				-.28		-.28			
174	208				-.27		-.27			
174	209				-.19		-.19			
175	210									
176	211									
177	212									
177	213									
178	214									
179	215									
180	216	-.42		-.42						
181	217									
182	218									
183	219	.03	.24	-.18						
184	220	-.44		-.44						
185	221				-.41		-.41			
186	222	-.39		-.39						
187	223									
188	224									
189	225									
190	226									
191	227									
192	228	-.34		-.40						
193	229	.03								
194	230	-.19		-.19				-.12		-.12
195	231									
196	232							-.22	-.24	-.21

197	233					
198	234					
199	235			-.26		-.26
200	236					
201	237			.03	.03	
201	238			.01	.01	
201	239			-.31	-.31	
201	240			-.06	-.06	
201	241			-.31	-.31	

Appendix B (*continued*)

ID	Sample ID	SOCIAL RESOURCES (1)									
		Overall Social Resources				Co-National Resources			Host National Resources		
		ALL	SCA	PSA	DSA	ALL	SCA	PSA	ALL	SCA	PSA
1	1	.30		.30		.42		.42	.17		.17
2	2	.26	.28	.24					.36	.45	.27
3	3	.10		.10							
4	4	.29		.32	.27						
5	5	.12	.00	.25							
6	6										
7	7										
8	8										
9	9										
10	10	.20		.20		.24		.24	.16		.16
11	11	.08		.08		.16		.16	.01		.01
12	12	.20	.24	.20	.17						
13	13										
14	14	.17		.17							
15	15	.14	.12	.16					.14	.12	.16
16	16										
17	17	.09	.06		.11						
18	18										
18	19										
19	20										
20	21										
20	22										
21	23	.26	.31	.20		.31	.29	.32	.21	.33	.08
22	24	.38									
23	25	.06	-.04	.17	.04	.07	-.04	.17			
24	26										
25	27										
26	28	.36	.27		.45						
27	29										
27	30										
28	31	.13			.13						
29	32	.11		.11		.11		.11			

30	33	.24	.24								
31	34	.12		.12							
32	35										
33	36	.14	.14								
34	37										
35	38	.06		.06							
36	39	.03		.03		.01		.01	.03		.03
37	40	.19		.19							
38	41										
39	42	.30	.31	.29							
39	43	.15	.14	.16							
40	44										
41	45										
41	46										
42	47										
43	48	.13		.13		.01		.01			
44	49	.01	.11	-.10		.05	.19	-.09	-.03	.04	-.11
45	50										
46	51										
47	52	.24		.09							
48	53										
49	54										
50	55	.11	.15		.06						
51	56	.31		.31							
52	57										
53	58	-.08	-.09	-.06							
54	59	-.01		-.01		-.16		-.16	.03		.03
55	60	.21	.23	.20							
56	61	.31		.31							
57	62										
58	63										
59	64										
60	65										
61	66										
61	67										
61	68										
61	69										
61	70										
61	71										
61	72										

62	73									
62	74									
63	75	.04		.04		.06	.06	.00		.00
63	76	-.03		-.03		-.10	-.10	.11		.11
63	77	-.02		-.02		-.05	-.05	.05		.05
64	78									
65	79									
66	80									
67	81									
68	82	.39		.39						
69	83	.15	.15		.16			.13	.13	
70	84									
71	85									
72	86	.51	.51					.51	.51	
73	87									
74	88									
75	89	.37			.37					
76	90	.43	.49	.37				.43	.49	.37
77	91	-.02		-.02						
78	92	.24	.24							
79	93	.30	.23	.38	.30					
80	94									
81	95	.33	.33							
82	96	.15	.18	.12						
83	97									
84	98									
85	99									
86	100	.06		.06		.04	.04	.07		.07
87	101									
88	102	.25	.23	.26				.27	.20	.33
89	103									
89	104									
89	105									
89	106									
89	107									
89	108									
89	109									
90	110									
91	111	.11		.11				.11		.11
91	112	.05		.05				.05		.05

92	113										
93	114	.21	.16		.25			.16	.16		
94	115										
95	116										
95	117										
96	118										
97	119	.20	.20								
98	120										
99	121										
99	122										
100	123										
101	124	.31		.31				.31		.31	
102	125										
103	126										
104	127										
105	128	.40	.44	.36							
106	129	.30	.33	.26							
107	130										
108	131										
109	132										
110	133	.05	.05								
111	134	.18		.18							
112	135	.14		.14							
112	136	.05		.05							
112	137	.22		.22							
113	138										
114	139	.21	.20		.23						
115	140										
116	141	.20		.20							
116	142	.24		.24							
117	143	.51		.51							
118	144										
119	145										
120	146										
121	147	.10		.10		.05	.05				
122	148	.13		.13				.06		.06	
123	149										
124	150										
125	151	.22		.22							
126	152										

127	153										
128	154	.17		.10	.25						
129	155										
130	156	.09	.06	.09	.14				.12	.22	.02
131	157										
132	158										
133	159										
134	160	.31		.31		.25		.25	.36		.36
135	161										
136	162										
137	163										
138	164										
139	165	.21	.21						.25	.25	
140	166										
141	167										
142	168	.14		.14							
143	169	.39		.39							
143	170	.56		.56							
144	171										
145	172	.58		.58							
146	173	.50	.50			.25	.25		.74	.74	
146	174	.18	.18			-.17	-.17		.52	.52	
147	175	.26	.42	.10		.19	.24	.14	.33	.60	.05
148	176										
149	177										
149	178										
150	179										
151	180	.10	.30	-.10					.10	.30	-.10
152	181	.36		.36							
152	182	.42		.42							
153	183										
154	184	.28		.28							
155	185										
156	186	.33	.33								
156	187	.44	.44								
157	188	-.12		-.12							
158	189										
159	190	.08							.01	.01	
160	191	.14	.14	.13							
161	192	.22		.22							

161	193										
162	194										
162	195										
163	196										
164	197	-.11	-.11	-.11							
165	198										
166	199										
167	200										
168	201	-.23		-.23							
169	202	.19		.19							
169	203	.14		.14							
170	204	.16	.14		.17						
171	205	-.05		-.05		-.18		-.18	.16		.16
172	206										
173	207	.14		.14		-.04		-.04	.33		.33
174	208	.17		.17		.23		.23	.11		.11
174	209	.10		.10		.10		.10	.10		.10
175	210	.32	.32								
176	211	.15		.15					.01		.01
177	212										
177	213										
178	214	.20	.20								
179	215										
180	216	.24		.24							
181	217	.06		.06		.06		.06			
182	218	.12	.21		.03						
183	219										
184	220										
185	221										
186	222	.43		.43							
187	223										
188	224										
189	225	.15	.18	.11		.11	.12	.11			
190	226										
191	227	.41		.41							
192	228										
193	229										
194	230	.17		.17							
195	231										
196	232	-.03	-.22	.16		-.03	-.22	.16			

197	233	.13	.12	.14	.13	.12	.14			
198	234	.32	.42	.22				.32	.42	.22
199	235									
200	236									
201	237	.09	.09		-.05	-.05		.22	.22	
201	238	.13	.13		.13	.13		.12	.12	
201	239	-.01	-.01		-.11	-.11		.10	.10	
201	240	.28	.28		.06	.06		.49	.49	
201	241	.03	.03		-.27	-.27		.32	.32	

Appendix B (*continued*)

ID	Sample ID	SOCIAL RESOURCES (3)									
		Distant Resources			Loneliness			Overall Quality of Interaction			
		ALL	SCA	PSA	ALL	SCA	PSA	ALL	SCA	PSA	DSA
1	1										
2	2							.36	.45	.27	
3	3										
4	4										
5	5										
6	6										
7	7										
8	8										
9	9										
10	10										
11	11										
12	12										
13	13										
14	14										
15	15										
16	16										
17	17										
18	18										
18	19										
19	20										
20	21										
20	22										
21	23										
22	24										
23	25	.07	-.04	.17							
24	26										
25	27										
26	28										
27	29										
27	30										
28	31										
29	32	.07		.07							

30	33						
31	34						
32	35						
33	36						
34	37						
35	38					.29	.29
36	39					.01	.01
37	40						
38	41						
39	42						
39	43						
40	44						
41	45						
41	46						
42	47						
43	48	.09	.09			.08	.08
44	49						
45	50						
46	51						
47	52						
48	53						
49	54						
50	55						
51	56						
52	57						
53	58						
54	59						
55	60						
56	61						
57	62						
58	63						
59	64						
60	65						
61	66						
61	67						
61	68						
61	69						
61	70						
61	71						
61	72						

62	73								
62	74								
63	75	.11		.11					
63	76	-.07		-.07					
63	77	-.10		-.10					
64	78								
65	79								
66	80								
67	81								
68	82								
69	83								
70	84								
71	85								
72	86								
73	87								
74	88								
75	89								
76	90								
77	91								
78	92					.17	.17		
79	93	.31	.26	.39		.25	.14	.38	.24
80	94								
81	95								
82	96								
83	97								
84	98								
85	99								
86	100					.06		.06	
87	101								
88	102	.26	.29	.22					
89	103								
89	104								
89	105								
89	106								
89	107								
89	108								
89	109								
90	110								
91	111					.11		.11	
91	112					.05		.05	

92	113										
93	114						.18	.19		.18	
94	115										
95	116										
95	117										
96	118										
97	119						.18	.18			
98	120										
99	121										
99	122										
100	123										
101	124										
102	125										
103	126										
104	127										
105	128				-.40	-.44	-.36				
106	129										
107	130										
108	131										
109	132										
110	133										
111	134										
112	135										
112	136										
112	137										
113	138										
114	139	.13	.14								
115	140										
116	141				-.20		-.20				
116	142				-.24		-.24				
117	143										
118	144										
119	145										
120	146										
121	147						.15		.15		
122	148	-.18		-.18							
123	149										
124	150										
125	151										
126	152										

127	153						
128	154			.23		.14	.31
129	155						
130	156						
131	157						
132	158						
133	159						
134	160			.31		.31	
135	161						
136	162						
137	163						
138	164						
139	165						
140	166						
141	167						
142	168						
143	169						
143	170						
144	171						
145	172						
146	173			.50	.50		
146	174			.18	.18		
147	175			.26	.42	.10	
148	176						
149	177						
149	178						
150	179						
151	180			.10	.30	-.10	
152	181						
152	182						
153	183						
154	184						
155	185						
156	186						
156	187						
157	188						
158	189						
159	190	.10					
160	191						
161	192						

161	193									
162	194									
162	195									
163	196									
164	197									
165	198									
166	199									
167	200									
168	201									
169	202									
169	203									
170	204									
171	205									
172	206									
173	207							.14		.14
174	208							.17		.17
174	209							.10		.10
175	210				-.32	-.32				
176	211				-.29		-.29	.01		.01
177	212									
177	213									
178	214	.11	.11							
179	215									
180	216							.24		.24
181	217							.06		.06
182	218	.10	.10							
183	219									
184	220									
185	221									
186	222									
187	223									
188	224									
189	225	.16	.12	.20						
190	226									
191	227				-.41		-.41			
192	228									
193	229									
194	230	.20		.20						
195	231									
196	232							-.03	-.22	.16

197	233			.13	.12	.14
198	234			.32	.42	.22
199	235					
200	236					
201	237					
201	238					
201	239					
201	240					
201	241					

Appendix B (*continued*)

ID	Sample ID	SOCIAL RESOURCES (4)											
		Friendship				Overall Social Support				Organizational Support			
		ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA	ALL	SCA	PSA	DSA
1	1					.30		.30					
2	2									.16	.11	.20	
3	3					.10		.10					
4	4					.29		.32	.27				
5	5					.12	.00	.25					
6	6												
7	7												
8	8												
9	9												
10	10					.20		.20					
11	11					.08		.08					
12	12					.20	.24	.20	.17				
13	13												
14	14					.23		.23		-.03		-.03	
15	15					.14	.12	.16					
16	16												
17	17					.09	.06		.11				
18	18												
18	19												
19	20												
20	21												
20	22												
21	23					.26	.31	.20					
22	24									.38			
23	25					.06	-.04	.17	.04				
24	26												
25	27												
26	28					.30	.22		.37	.42	.33		.52
27	29												
27	30												
28	31									.13			.13
29	32					.15		.15		.02		.02	

30	33	.29	.29		.19	.19					
31	34				.12		.12				
32	35										
33	36								.14	.14	
34	37										
35	38				-.02		-.02				
36	39				.03		.03		.07		.07
37	40				-.10		-.10		.34		.34
38	41										
39	42				.30	.31	.29				
39	43				.15	.14	.16				
40	44										
41	45										
41	46										
42	47										
43	48				.19		.19				
44	49				.01	.11	-.10				
45	50										
46	51										
47	52	.24		.09							
48	53										
49	54										
50	55				.11	.15		.06			
51	56								.31		.31
52	57										
53	58				-.08	-.09	-.06				
54	59	-.04		-.04							
55	60				.21	.23	.20				
56	61				.31		.31				
57	62										
58	63										
59	64				.17						
60	65										
61	66										
61	67										
61	68										
61	69										
61	70										
61	71										
61	72										

62	73												
62	74												
63	75					.04		.04					
63	76					-.03		-.03					
63	77					-.02		-.02					
64	78												
65	79												
66	80												
67	81												
68	82					.39		.39					
69	83	.11	.15		.07	.20	.15		.25				
70	84												
71	85												
72	86					.51	.51						
73	87												
74	88												
75	89									.37			.37
76	90	.43	.49	.37									
77	91					-.02		-.02					
78	92									.31	.31		
79	93									.33	.27	.38	.34
80	94												
81	95					.33	.33						
82	96					.15	.18	.12					
83	97												
84	98												
85	99												
86	100												
87	101												
88	102					.26	.25	.28		.22	.21	.23	
89	103												
89	104												
89	105												
89	106												
89	107												
89	108												
89	109												
90	110												
91	111												
91	112												

92	113									
93	114		.24	.15		.32				
94	115									
95	116									
95	117									
96	118									
97	119		.23	.23						
98	120									
99	121									
99	122									
100	123									
101	124		.31		.31					
102	125									
103	126									
104	127									
105	128		.40	.44	.36					
106	129		.30	.33	.26					
107	130									
108	131									
109	132									
110	133		.05	.05						
111	134		.18		.18					
112	135		.14		.14					
112	136		.05		.05					
112	137		.22		.22					
113	138									
114	139						.21	.20		.23
115	140									
116	141		.20		.20					
116	142		.24		.24					
117	143		.66		.51					
118	144									
119	145									
120	146									
121	147		.05		.05					
122	148		.13		.13					
123	149									
124	150									
125	151		.22		.22					
126	152									

127	153									
128	154			.12		.05	.19			
129	155									
130	156			.09	.06	.09	.14			
131	157									
132	158									
133	159									
134	160									
135	161									
136	162									
137	163									
138	164									
139	165	.11	.11	.39	.39					
140	166									
141	167									
142	168			.14		.14				
143	169			.39		.39				
143	170			.56		.56				
144	171									
145	172			.58		.58				
146	173									
146	174									
147	175									
148	176									
149	177									
149	178									
150	179									
151	180									
152	181			.36		.36				
152	182			.42		.42				
153	183									
154	184			.28		.28				
155	185									
156	186			.33	.33					
156	187			.44	.44					
157	188			-.12		-.12				
158	189									
159	190			.01				.08		
160	191							.14	.14	.13
161	192			.22		.22				

161	193									
162	194									
162	195									
163	196									
164	197			-.11	-.11	-.11				
165	198									
166	199									
167	200									
168	201	-.23	-.23							
169	202	-.14	-.14	.25		.25	.45		.45	
169	203	-.03	-.03	.01		.01	.43		.43	
170	204						.16	.14		.17
171	205			-.05		-.05				
172	206									
173	207									
174	208									
174	209									
175	210			.32	.32					
176	211			.29		.29				
177	212									
177	213									
178	214			.24	.24		.11	.11		
179	215									
180	216									
181	217									
182	218						.12	.21		.03
183	219									
184	220									
185	221									
186	222			.43		.43				
187	223									
188	224									
189	225			.15	.18	.11				
190	226									
191	227			.41		.41				
192	228									
193	229									
194	230			.17		.17				
195	231									
196	232									

197	233						
198	234						
199	235						
200	236						
201	237				.09	.09	
201	238				.13	.13	
201	239				-.01	-.01	
201	240				.28	.28	
201	241				.03	.03	

Note. ALL - Overall Adaptation; SCA - Socio-cultural Adaptation; PSA - Psychological Adaptation; DSA - Domain-Specific Adaptation. Whenever a study is cited multiple times with the same ID and different Sample IDs, effect sizes from multiple samples reported in one study were included. Effect sizes reported above are correlation coefficients (*r*) for associations between each predictor and each outcome. Some *r*s are composites of two or more effect sizes reported by a primary study for different variables falling into one predictor category (see the section Calculation of Effect Sizes), therefore they may not be equivalent with *r*s provided in the corresponding primary study. Effect sizes for Overall Adaptation are averages of effect sizes for all adaptation outcomes reported by a primary study; these effect sizes were not taken into account in the overall number of effect sizes provided above.

Chapter 4.

Protective or Harmful? Exploring the Ambivalent Role of Social Identification as a Moderator of Intergroup Stress in Sojourners

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Abstract

Living outside one's home country may be stressful, and having strong social ties should help deal with this stress. However, social ties may be protective or harmful depending on whether the social group they evoke belongs to the host- or the home country context. The current study examines how social identification with different groups may either buffer or aggravate the negative effects of two stressors (perceived discrimination and symbolic threat) on sojourner adaptation. Two hundred and twenty international students sojourning in nine different countries responded to an online questionnaire. As expected, adaptation was negatively predicted by both stressors. Moreover, high identification with the group of international students attenuated the negative effects of perceived discrimination on psychological adaptation, while home country identification aggravated the negative effects of symbolic threat on sociocultural adaptation.

Keywords: International Students, Cross-cultural Adaptation, Ingroup Identification, Perceived Discrimination, Intergroup Threat

Living outside one's home country may be stressful. Some major stressors that sojourners confront arise from experience with members of the host society, with its unfamiliar cultural norms and not always friendly attitudes toward foreigners. Perceiving the host society as in some way forbidding is detrimental to sojourner adaptation and functioning in the new cultural environment (e.g., perceiving discrimination; Wilson, Ward, & Fischer, 2013). Moreover, such perceptions may prevent a sojourner from realizing his or her potential while abroad. For example, they may indirectly affect work (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Hechanova, Beehr, & Christiansen, 2003) or academic outcomes (Hwang, Wang, & Sodanine, 2011; Tsang, 2001), and lead to early return to the home country.

One major source that may buffer stress amongst sojourners is their social capital. For instance, the social context provides the sojourner with a sense of social identification and other social ties which, one could expect, should be empowering and facilitate dealing with the stress of intercultural transitions. The reality, however, appears to be more complex with evidence suggesting that social capital may be either beneficial or devastating to sojourner adaptation depending on what group provides it (cf. Geeraert, Demoulin, & Demes, 2014; Hendrickson, Rosen & Aune, 2011; Kashima & Loh, 2006; Berry, Phinney, Sam & Vedder, 2006). The current study explores this ambiguity and investigates the moderating role of two sources of identification, the co-national group and the group of fellow foreigners, in cross-cultural adaptation of international students.

Perceived Discrimination and Intergroup Threat as Sources of Sojourner Stress

Cross-cultural adaptation, often defined in terms of the amount of stress or degree of comfort associated with sojourning abroad (Bhaskar-Shrinivas at al., 2005), may be viewed as a process of coping with the stressors present in international transitions (Searle & Ward, 1990; Ward, Bochner, & Furnham, 2001; see also Van der Zee & Van Oudenhoven, 2014). The literature distinguishes between socio-cultural (sojourner social functioning within the host culture) and psychological adaptation (sojourner well-being). While both dimensions are empirically related and predicted by similar stress-related factors (e.g., perceived discrimination; see Wilson et al., 2013; Zhang & Goodson, 2011), the stress and coping perspective has generally been used to predict psychological adaptation rather than socio-cultural adaptation.

Stressors are broadly defined as "events impinging on the person" (Lazarus & Folkman, 1984, p. 12). An international transition not only constitutes such an event in itself (Ward et al., 2001), but is also accompanied by a number of more specific stressors due to changing one's cultural environment. For instance, after moving to a new country a sojourner interacts with locals, and this interaction often takes the form of intergroup contact in which the foreignness of the sojourner is salient. Such contact may be stressful, especially when it involves perceived discrimination. The experience of discrimination causes individuals to perceive a hostile social environment, which leads to increased stress and undermines psychological health in minority members (Meyer, 2003).

Irrespective of how much it corresponds to actual unequal treatment based on group membership (e.g., being denied a job or housing because of one's foreign nationality), the appraisal of discrimination towards one's national, cultural or ethnic group as such is detrimental for people's social functioning and well-being, considering it threatens one's social identity and

leads to feelings of rejection that are harmful to people's self-esteem (Branscombe et al., 1999). There is robust meta-analytical evidence from various minority samples, including sojourners and migrants, that perceived discrimination is indeed negatively associated to well-being (Schmitt et al., 2014) and sojourner socio-cultural adaptation (r = -.50; Wilson et al., 2013).

Symbolic threat, or the discrepancy between the norms, values, or beliefs of one's native culture and the host culture, is another potential social difficulty for sojourners (Stephan, Ybarra, & Bachman, 1999; Stephan & Stephan, 1996, 2000; Van der Zee & Van Oudenhoven, 2014). For example, people moving from a secular occidental country to a religious state may appraise the predominance of religion in social life as a threat to their own cultural identity associated with values such as freedom of conscience. People moving in the opposite direction may perceive the secular culture as threatening because its liberalism is perceived as incompatible with their country's moral norms. Given that most sojourners are exposed to the host culture on a daily basis, such symbolic threats may result in high levels of stress, translating into poor adaptation.

While there is some work associating symbolic threat with unfavorable individual-level outcomes (see Hofhuis, Van der Zee, & Otten, 2013, for one example), this earlier work has not included adaptation. At the intergroup level, symbolic threat has been consistently linked to negative outcomes (e.g., increased prejudice; Riek, Mania, & Gaertner, 2006). These may translate into increased intergroup tension which, similarly to discrimination, is likely to contribute to a hostile and stressful social environment that undermines sojourner adaptation (see Meyer, 2003).

Ingroup Identification as a Coping Resource

In the present study, we assume that the extent to which perceived discrimination and intergroup threat will affect cross-cultural adaptation is determined by the effectiveness of coping responses, both psychological (i.e., dealing with the emotions triggered by intercultural encounters, relevant to psychological adaptation) and behavioral (i.e., adapting one's behavior to the new socio-cultural context, relevant to socio-cultural adaptation; Ward et al., 2001; Masgoret & Ward, 2006). The acculturation literature views coping as a critical moderator between stressors faced by migrants and their adaptation to the host society, and a process profoundly shaped by the social context of acculturation (Kuo, 2011, 2014).

Coping depends heavily on the availability of resources (Hobfoll, 1989; Lazarus & Folkman, 1984). Access to coping resources reduces the negative impact of stress in general (Lazarus & Folkman, 1984, Hobfoll, 1989; Hobfoll, Johnson, Ennis, & Jackson, 2003), and in intercultural situations in particular (e.g., Van Erp, Van der Zee, Giebels, & Van Duijn, 2013). One powerful example of a coping resource related to social interactions is social support, which has been shown to facilitate coping in general (Hobfoll, 1989; Lazarus & Folkman, 1984; see Taylor, 2011, for a more recent review, and Thoits, 2011, for a theoretical elaboration) and in cross-cultural contexts (Copeland & Norell, 2002; Lee, Koeske, & Sales, 2004; Podsiadlowski, Vauclair, Spiess, & Stroppa, 2013; Stroppa & Spieß, 2010; Wang et al., 2012). Since the effects of support are extensively documented, we consider that they should be controlled for when examining the role of the social context in sojourner adaptation.

Social identification has also been studied as a coping resource (e.g., Phinney, 1990; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Gaudet, Clément, & Deuzeman, 2005; Haslam et al., 2006; Outten, Schmitt, Garcia & Branscombe, 2009; see also and Haslam, Jetten,

Postmes & Haslam, 2009, for a review). However, in this case findings are more ambivalent. Work on intergroup relations tends to view identification with one's minority ingroup, such as the co-ethnic group, as beneficial (see Haslam et al., 2009, for a review) and associate it with favorable individual level outcomes (e.g., well-being and life satisfaction, Outten et al., 2009; self-esteem, Phinney, 1990; less depressive symptoms, Gaudet et al., 2005; less psychological distress, Sellers et al., 2003). Moreover, minority group identification is seen as a buffer against intergroup stressors. For instance, according to the well-known rejection-identification model (Branscombe et al., 1999; Giamo, Schmitt, & Outten, 2012; Schmitt, Spears, & Branscombe, 2003), identifying with one's minority group (e.g., co-ethnic group, sexual minority, etc.) enhances a feeling of belonging and being accepted, which facilitates coping with perceived discrimination. This also applies to sojourners. In a study among international students in the USA, Schmitt and colleagues (2003) found that social identification with the minority group of foreign students (but interestingly not the co-national minority group) buffered the effect of perceived prejudice from locals, resulting in increased well-being and self-esteem. Finally, minority group identification increases a person's sense that they and their group can effectively cope with perceived discrimination, which results in higher levels of well-being (Outten et al., 2009).

At the same time, there is evidence suggesting that social identification may lead to either positive or negative outcomes depending on what social group one identifies with. Studies on acculturation show that strongly identifying with the heritage culture and rejecting the host national group (i.e., the acculturation strategy of separation) is associated with less favorable outcomes than identifying with both groups (i.e., integration), but still more favorable than rejecting both groups (i.e., marginalization) (Berry, 2006b; Yoon et al., 2012). Berry, Phinney,

Sam and Vedder (2006) report that minority members who strongly endorse their ethnic identity (i.e., have an "ethnic profile") are characterized by poor socio-cultural adaptation, although their well-being does not seem to suffer. Focusing mostly on migrants (Bierwiaczonek & Waldzus, 2016, Chapter 2 of this thesis), acculturation research considers a combination of identification with the host- and co-national group, but not with other groups that could be relevant for short-term sojourners (e.g., the international student group). Although the possible buffering or aggravating effects of identification are definitely not a focus of acculturation research, this research supports our assumption that identifying with one's minority group may not always be beneficial for the sojourner.

In sum, while social identification appears to be highly relevant to sojourner adaptation, its role is ambivalent and needs to be clarified. Previous research makes us suspect that whereas local sources of identification favor adaptation, the sources that tie sojourners to the home country context may keep them from adapting to the host culture. It appears, moreover, that this distinction is not limited to the co-national vs. host-national group. For instance, the group of fellow international students might be assumed to be a group strongly associated with the host country context and thus be of particular relevance for adaptation (Schmitt et al, 2003; Kashima & Loh, 2006).

With the aim at clarifying the ambivalence of the role of identification in the adaptation context, the current study investigates the effects of two minority groups sojourners may potentially identify with: the co-national group, that is, the group related to the home context and the heritage culture (home country identification) and the international student group, which is related to the host country context but not the host country culture (identification with international student group; see also Kashima & Loh, 2006). In line with the stress and coping

approach to adaptation, we suggest that ingroup identification should serve as a coping resource and therefore have positive effects on adaptation. However, different from previous research, we also suggest considering the different sources of identification as moderators of the effects of cross-cultural stress. More precisely, we propose that the degree to which sojourners identify with a minority group should attenuate the detrimental effects of perceived discrimination and intergroup threat on adaptation, except if the group they identify with is strongly associated with the home culture (home country identification). In the latter case, identification with such a group should aggravate the negative influences of perceived discrimination and intergroup threat.

As such, we hypothesized as follows (see also Figure 1):

H1. *Higher levels of (a) perceived discrimination and (b) perceived symbolic threat among sojourners are associated with poorer adaptation.*

H2. *Higher levels of social identification are associated with higher levels of adaptation.*

H3. *The negative effects of perceived discrimination and perceived symbolic threat are moderated by social identification. More specifically, the negative association between these two stressors and adaptation is weaker for participants reporting higher levels of identification with the group of international students (H3a). In contrast, the negative association between stressors and adaptation is aggravated by home country identification (H3b).*

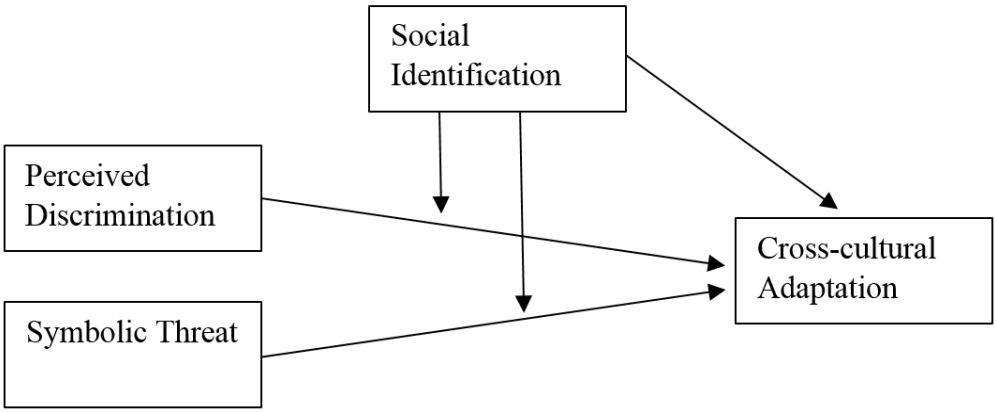

Figure 1. Hypothesized relationships between variables

The Present Study

We tested our hypotheses in an online questionnaire study on a sample of international students. This population is known to be relatively well immersed in the host society and relatively highly motivated to adapt (Ward et al., 2001). Whereas international students may come from countries which have a higher or lower level of economic development than their host country, their own socio-economic status is relatively high, especially when compared to some migrant groups.

As dependent variables, we measured two dimensions of cross-cultural adaptation: psychological and socio-cultural adaptation. As predictors, we assessed perceived discrimination, symbolic threat, home country identification and identification with the group of international students. This latter source of social identification was chosen for its high relevance for international students (Schmitt et al., 2003; Kashima & Loh, 2006) and for its interesting feature of belonging to the local context without being part of the host culture, a possibility that has not been studied under the acculturation framework. Because social identification may be interrelated with sojourner perceptions of social support, we also assessed this latter factor as a

control variable. This study design allowed us to compare sources of social capital that evoke the home country context and culture (home country identification), and that do not evoke any specific culture, despite clearly belonging to the host country context (identification with international students).

Methods

Sample and Procedure

Emails requesting assistance with the recruitment of participants were sent to the International Offices of ten European universities from the list of the top 100 institutions receiving Erasmus students (European Union, 2013), one top university per country. Because this strategy turned out to be insufficient, we additionally emailed 15 different universities from the three European countries with the greatest number of international students (Germany, United Kingdom, France; UNESCO, 2014). Four universities agreed to email the link to our online survey to their current international students, and two other universities published it on their social media profiles. Four hundred and thirty students opened the link and 248 completed the questionnaire, resulting in a 42% dropout rate. This number is high yet comparable with the usual dropout rate in online studies (Galesic, 2006).

Twenty-eight participants were not international students and were not included in the data analysis. Of the 220 participants retained for further analysis, 29% were male, 69% female, and 3% did not indicate their gender. The average participant age was 22.39 years. These numbers were similar in the overall population of Erasmus students in 2012/2013, where 61% were female, and the mean age was 22 years (European Union, 2014). In our sample, 45 countries were represented, most of them European (including Germany, 12%; Spain, 8%, Czech Republic, 5%; Italy, 5%; Portugal, 5%; UK, 5%, and other countries with less than 5%). Among

non-European countries, students from the USA were the most numerous (10% of the overall sample). Participants were sojourning in eight European countries (Denmark, 38%; Slovenia, 27%; Germany, 18%; France, 11%; Czech Republic, 4%; Spain, 1%; The Netherlands, one case, and UK, one case) and one non-European country (Canada, one case). Most participants (65%) were Bachelor students, 29% were Master students, 4% PhD students, and 3% studied toward other degrees, which is comparable to the overall Erasmus student population (67% Bachelor, 29% Master, 1% PhD in 2012-2013; European Union, 2014). In our sample, the majority of students majored in social sciences (28%), followed by languages (20%), humanities and arts (14%), exact sciences (13%), medicine and health sciences (9%), technology and engineering (7%), law (5%), business (4%) and sports (less than 1%). Most participants (91%) reported a length of sojourn in the host country between one and four months at the time of measurement, 3% reported less than one month, 3% between four and 24 months, and another 3% more than 24 months.

Assessment Instruments

All measures were administered in English and relied on 5-point Likert scales to assess the variables of interest. Scale reliability reported below refers to the current sample.

Adaptation measures. *Psychological Adaptation* was measured using the Brief Psychological Adaptation Scale (BPAS; Demes & Geeraert, 2014; Cronbach's $\alpha = .82$). This 8-item scale is, to our knowledge, the only measure of psychological outcomes specific for the cross-cultural context. Although recent, it has been validated on a large sample of sojourners ($N = 1{,}929$) and shown to correlate in expected directions with constructs typically used in research to operationalize psychological adjustment (stress, anxiety, self-esteem, and satisfaction with life; see Demes & Geeraert, 2014). Sample items are: "In the last 2 weeks, how often have you

felt excited about being in your host country?" (+) and "In the last 2 weeks, how often have you felt out of place, like you don't fit into the host country's culture?" (-).

Socio-cultural Adaptation was assessed with a 18-item version (α = .87) of the Socio-cultural Adaptation Scale (SCAS; Ward & Kennedy, 1999). SCAS has been widely used and validated in various samples of sojourners, including international students (Wilson et al., 2013). Participants were asked how difficult it was for them, compared to the locals, to deal with everyday matters in the host country (e.g., "Making friends", "Getting used to the pace of life", "Understanding what is required of you at university"). In this study, reversed coding was used so that higher scores indicated better adaptation.

Predictor measures. *Perceived Discrimination* was measured with a 5-item scale adapted from the International Comparative Study of Ethno-cultural Youth (ICSEY; Berry et al., 2006; see also Ward, Stuart, & Kus, 2011). The items assess perceptions of being mistreated because of one's foreign nationality (e.g. "I have been teased or insulted because of my foreign background"). Initially, we also considered *Perceived Prejudice* as a distinct variable. Whereas perceived discrimination refers to sojourner perceptions of host nationals' actual discriminating behaviors, perceived prejudice refers to sojourner perceptions of host nationals' overall negative attitudes toward sojourners' ingroup (Allport, 1954). In practice, these variables are often confounded, and we did not find any scale that would correspond with Allport's definition. As such, this construct was assessed with one self-developed item: "From your experience, how do local people usually feel toward people of your nationality?" with answers ranging from "very negative" to "very positive". An exploratory factor analysis with maximum likelihood estimation performed on all the six items of these two measures extracted one factor only (all loadings >

.50) explaining 47.90% of variance. Therefore, the six items were averaged into one scale, with greater scores indicating more perceived discrimination (α = .84).

Symbolic Threat was assessed with five items adapted from Stephan, Ybarra, and Bachman (1999). Their intergroup threat measure in its original form includes, besides symbolic threat, two other subscales: realistic threat and intergroup anxiety. However, we considered that the former one, with items referring to economic competition between groups, is rather inadequate for international students, while the latter one, tapping into emotional reactions to the outgroup, is excessively similar to our outcome measures. As such, only items referring to symbolic threat were used. This measure was previously used in several studies (Stephan & Stephan, 2000; see also Riek et al., 2006). A sample item is: "The values and beliefs of local people regarding moral and religious issues are not compatible with the beliefs and values of most people in my country" (α = .75).

Social Identification was measured with five items from the ingroup identification scale developed by Leach and colleagues (2008). The full scale is composed of 14 items and two higher order components: Self Investment (with subscales for Solidarity, Satisfaction and Centrality), and Self Definition (with subscales for Individual Self-Stereotyping and In-Group Homogeneity). We selected the items that we considered most relevant for the cross-cultural setting: two items from the Solidarity subscale, two items from the Satisfaction subscale, and one item from the Centrality subscale. The same items were used to assess home country identification (e.g. "I feel a bond with people from my country", α = .89), and identification with international students (e.g., "I feel a bond with other foreign students", α = .77).

Social Support. The 12-item Multidimensional Scale of Perceived Social Support (MSPSS, Zimet, Dahlem, Zimet, & Farley, 1988; Zimet, Powell, Farley, Werkman, & Berkoff,

1990). This scale has already been used in cross-cultural contexts (e.g., Jibeen & Khalid, 2010, Tonsing, 2013). It assesses three dimensions of social support (support from the family, from friends and from a significant other), but because in this study social support was only a control variable, we opted for using the overall scale (α = .90). Sample items were: "I get the emotional help and support I need from my family", "My friends really try to help me" and "There is a special person who is around when I am in need".

Sociodemographic questions. Finally, we asked participants about their gender, age, host and home country, length of stay in the host country at the time of measurement and intended length of stay, host university, studied discipline and study level. [13]

Results

Correlation Analyses

Descriptive statistics and correlations are shown in Table 1. Correlations between predictor variables did not exceed .50, revealing no serious multicollinearity issues. Correlations of Perceived Discrimination and Symbolic Threat with all outcome variables were significant and in the expected direction, offering preliminary support to H1a and H1b. H2 was also partially supported as Identification with International Students was positively correlated with both outcomes. However, no significant correlations with outcome measures were found for Home country identification (all *p*s > .26). None of the correlations between predictors and outcomes was strong (all *r*s < .37). Finally, none of the four sociodemographic variables included in the correlation analysis yielded significant positive correlations with any of the

[13] We also measured sociometric status, relative social status, intercultural personality traits and the amount of cross-cultural contact at the university and outside the university. However, these variables are not reported here because their exploration would go beyond the goals of this particular paper.

outcomes (all *p*s > .07). The remaining correlations with outcome measures were non-significant (all *p*s > .27).

Regression Analyses

Our hypotheses were tested in a series of hierarchical multiple regressions. The results of these analyses are reported in Table 2. Because the Shapiro-Wilk test was significant ($p < .001$) for Psychological Adaptation, indicating deviations from the normal distribution, we used bootstrap with 5000 samples and bias-corrected accelerated confidence intervals.

When examining multiple interactions, it is recommended to enter all of the moderator effects in a single step after all of the predictor and moderator variables (Frazier, Tix, & Barron, 2004). We followed this procedure. Predictor variables and their interactions were entered in two blocks (see Table 2): Perceived Discrimination, Symbolic Threat in Step 1, Identification with International Students and Home country identification in Step 2, Social Support in Step 3, and interaction terms for Perceived Discrimination and both moderators and for Symbolic Threat and both moderators in Step 4. The same hierarchical regression was repeated for both outcome measures. All predictors were mean-centered. For significant interactions, separate regressions were performed to analyze simple slopes at 1 *SD* below the mean of the moderator, at the mean level of the moderator, and 1 *SD* above the mean of the moderator.

Table 1.

Descriptive statistics and correlations between study variables.

		M	SD	Min	Max	1	2	3
1	Sociocultural Adaptation	3.67	0.59	2.06	4.88			
2	Psychological Adaptation	3.82	0.63	1.38	5.00	.57**		
3	Perceived Discrimination	1.70	0.67	1.00	4.00	-.37**	-.34**	
4	Symbolic Threat	2.33	0.79	1.00	4.40	-.29**	-.27**	.48**
5	Home Country Identification	3.62	0.95	1.00	5.00	.08	-.03	-.10
6	Identification - Students	4.01	0.67	1.80	5.00	.18**	.22**	-.07
7	Social Support	4.10	0.74	1.00	5.00	.25**	.18**	-.26**
8	Lenght of Stay					.12	.03	.08
9	Intended Lenght of Stay					-.05	.01	.03
10	Gender (Male)					.04	.09	.02
11	Age	22.49	3.23	19.00	43.00	-.04	-.02	-.06

Note. Spearman's rank correlation coefficients are reported. Descriptive statistics are not provided for interval and categorical data (variables 8 – 10). Cases with missing data deleted pairwise (216 <n<220).

Table 1 *continued*

		4	5	6	7	8	9	10
1	Sociocultural Adaptation							
2	Psychological Adaptation							
3	Perceived Discrimination							
4	Symbolic Threat							
5	Home Country Identification	-.01						
6	Identification - Students	-.03	.25**					
7	Social Support	-.18**	.15*	.18**				
8	Lenght of Stay	.14*	.02	.00	.01			
9	Intended Lenght of Stay	.13*	-.07	-.06	-.09	.26**		
10	Gender (Male)	-.08	-.06	-.19**	-.22**	.10	.10	
11	Age	-.03	.01	-.02	-.01	.02	.04	.12

Note. Spearman's rank correlation coefficients are reported. Descriptive statistics are not provided for interval and categorical data (variables 8 – 10). Cases with missing data deleted pairwise (216 <n<220).

Table 2.

Hierarchical Regressions with All Predictors and Moderators.

	Socio-cultural Adaptation					Psychological Adaptation				
	B	*SE*	*p*	CI_{low}	CI_{high}	*B*	*SE*	*p*	CI_{low}	CI_{high}
Step1										
Constant	3.67	0.04	.00	3.59	3.74	3.81	0.04	.00	3.73	3.89
Perceived Discrimination	-0.25	0.06	.00	-0.37	-0.13	-0.28	0.08	.00	-0.43	-0.11
Symbolic Threat	-0.12	0.06	.04	-0.23	0.00	-0.11	0.07	.11	-0.23	0.02
			$R^2_{adj.}$ = .14***					$R^2_{adj.}$ = .13***		
			$F(2, 211) = 17.65$					$F(2, 211) = 17.31$		
Step 2										
Constant	3.67	0.04	.00	3.60	3.73	3.81	0.04	.00	3.74	3.89
Perceived Discrimination	-0.24	0.06	.00	-0.35	-0.12	-0.29	0.08	.00	-0.43	-0.14
Symbolic Threat	-0.12	0.05	.03	-0.23	-0.01	-0.10	0.06	.11	-0.22	0.02
Home Country Identification	0.02	0.04	.73	-0.07	0.10	-0.11	0.05	.04	-0.21	-0.01
Identification - Students	0.13	0.07	.08	-0.01	0.27	0.23	0.07	.00	0.09	0.38
			ΔR^2 = .02					ΔR^2 = .07***		
			$R^2_{adj.}$ = .15***					$R^2_{adj.}$ = .20***		
			$F(4, 209) = 10.38$					$F(4, 209) = 13.91$		
Step 3										
Constant	3.67	0.04	.00	3.60	3.73	3.81	0.04	.00	3.74	3.89
Perceived Discrimination	-0.21	0.06	.00	-0.33	-0.09	-0.26	0.08	.00	-0.40	-0.11
Symbolic Threat	-0.11	0.05	.04	-0.21	0.00	-0.09	0.06	.12	-0.21	0.03
Home Country Identification	0.01	0.04	.91	-0.08	0.09	-0.12	0.05	.02	-0.23	-0.01
Identification - Students	0.11	0.07	.13	-0.03	0.25	0.22	0.07	.00	0.09	0.36
Social Support	0.11	0.06	.08	-0.01	0.24	0.03	0.05	.51	-0.06	0.11
			ΔR^2 = .02*					ΔR^2 = .01		

	$R^2_{adj.}$ = .16***					$R^2_{adj.}$ = .20***				
	F(5, 208) = 9.36					F(5, 208) = 11.39				
Step 4										
Constant	3.67	0.04	.00	3.60	3.74	3.82	0.04	.00	3.74	3.90
Perceived Discrimination	-0.21	0.06	.00	-0.32	-0.10	-0.27	0.07	.00	-0.41	-0.14
Symbolic Threat	-0.10	0.05	.05	-0.21	0.01	-0.09	0.06	.15	-0.21	0.05
Home Country Identification	0.01	0.04	.80	-0.07	0.09	-0.10	0.05	.04	-0.20	-0.01
Identification - Students	0.11	0.07	.10	-0.03	0.25	0.23	0.07	.00	0.10	0.37
Social Support	0.12	0.07	.08	-0.01	0.25	0.06	0.05	.25	-0.04	0.17
Perceived Discrimination X Home Country Identification	0.07	0.06	.24	-0.05	0.24	0.01	0.09	.88	-0.16	0.23
Perceived Discrimination x Identification - Students	0.12	0.09	.16	-0.06	0.29	0.33	0.11	.00	0.11	0.55
Symbolic Threat x Home Country Identification	-0.11	0.06	.04	-0.23	-0.03	-0.10	0.09	.28	-0.26	0.04
Symbolic Threat x Identification - Students	0.07	0.05	.17	-0.03	0.16	-0.01	0.06	.84	-0.13	0.08
	ΔR^2 = .04*					ΔR^2 = .06**				
	$R^2_{adj.}$ = .19***					$R^2_{adj.}$ = .25***				
	F(9, 204) = 6.52					F(9, 204) = 8.75				

Note. Non-standardized regression coefficients are reported. Missing data deleted listwise (n = 213).

Bootstrap with 5000 samples, bias-corrected accelerated 95% confidence intervals.

Testing H1: Relations of Perceived Discrimination and Symbolic Threat with Indicators of Adaptation. We hypothesized that Perceived Discrimination (H1a) and Symbolic Threat (H1b) have a negative effect on cross-cultural adaptation. Indeed, the overall model with the two predictors (Step 1) was significant for both outcome variables. Perceived Discrimination was negatively related to both dimensions of adaptation. Symbolic Threat was negatively associated with Socio-cultural Adaptation, but not with Psychological Adaptation. Overall, H1 was partially supported.

Testing H2: Relations of Social Identification and Social Support with Indicators of Adaptation. Adding Social Identification to the model only improved prediction significantly for Psychological Adaptation. Social Identification with International Students was positively related to Psychological Adaptation even when controlling for Social Support (Step 3), but not to Socio-Cultural Adaptation. Home country identification was unrelated to Socio-Cultural Adaptation and even negatively related to Psychological Adaptation. Therefore, only partial support for H2 was found.

Testing H3: Interactions of Perceived Discrimination and Symbolic Threat with Identification and Support. For interactions between the variables, we expected either negative or positive moderation effects depending on the source (H3). As Table 2 (Step 4) shows, adding interactions to the model improved prediction for both outcomes.

Significant effects for the interaction between Perceived Discrimination and Identification with international students were found for Psychological Adaptation, but not for Socio-cultural Adaptation. For this interaction, the unstandardized simple slopes at the mean level of identification (B = -.32, SE = .06, p < .001) and 1 SD below the mean were significant (B = -.51, SE = .08, p < .001), while the simple slope at 1 SD above the mean was not (p > .05). In

other words, participants who identified more strongly with the group of international students were less affected by perceived discrimination from locals in their psychological adaptation than low-identifiers (see Figure 2).

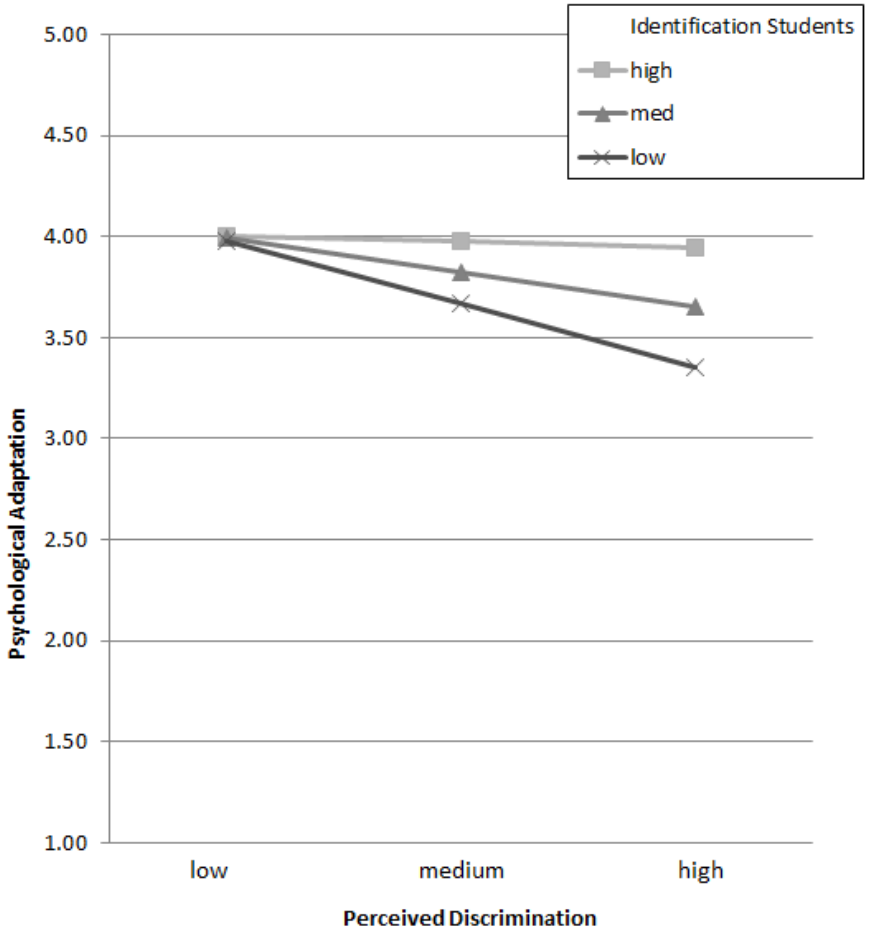

Figure 2. Interaction between Perceived Discrimination and Identification with International Students for Psychological Adaptation

Another significant moderation effect, but in the opposite direction, was found for the interaction between Symbolic Threat and Home country identification when predicting Socio-cultural Adaptation. In this case, the three simple slopes were significant (B = -.27, SE = .07, p < .001 at 1 SD above the mean of Home country identification; B = -.23, SE = .05, p < .001 at the

mean; $B = -.19$, $SE = .06$, $p < .001$ 1 SD below the mean). Students who identified strongly with their home country were more affected by symbolic threat than low-identifiers in terms of their socio-cultural adaptation (Figure 3).

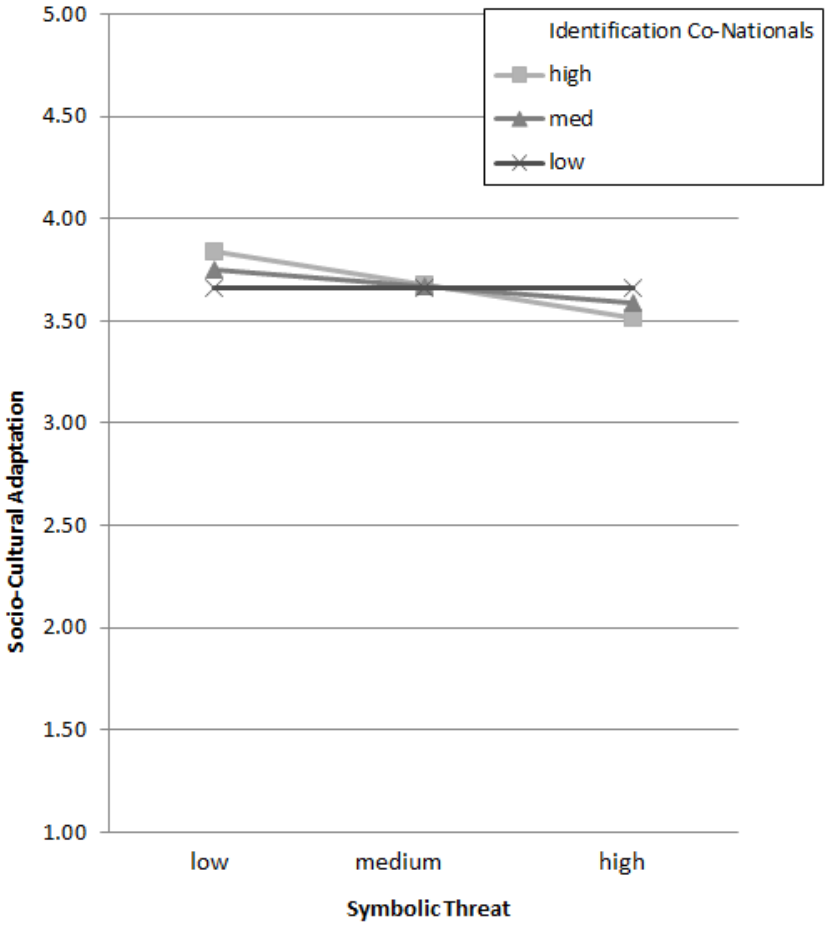

Figure 3. Interaction between Symbolic Threat and Home Country Identification for Socio-Cultural Adaptation

Discussion

Overall, our results support the hypothesis that cross-cultural adaptation is negatively related to perceiving discrimination (all adaptation outcomes) and symbolic threat (Socio-

Cultural Adaptation). Moreover, social identification with the group of fellow international students was positively associated with Psychological Adaptation, supporting the idea that identification may serve as a coping resource in the cross-cultural adaptation context. Most importantly, however, we found different patterns of influence depending on the source of identification. On the one hand, identification with international students attenuated the negative relation between perceived discrimination and adaptation. On the other hand, home country identification aggravated the effect of threat.

For Socio-cultural Adaptation, adding interactions to the model improved its predictive power way more than adding main effects of identification, and for Psychological Adaptation nearly as much as adding main effects. This shows that it is worthwhile to consider identification as a moderator rather than a simple predictor of adaptation.

Minority group identification plays a twofold role in sojourner adaptation of international students. On the one hand, strong identification with international students facilitates adaptation and our moderation analysis shows that this is probably the case because it protects against the negative influences of perceived discrimination. On the other hand, strong identification with one's national group undermines adaptation, and the reason seems to be that it aggravates the negative effect of perceived symbolic threat from the host society. The former finding is in line with what large part of the intergroup literature (e.g., Haslam et al., 2009; Outten et al., 2009; Gaudet et al., 2005; Giamo et al., 2012; Schmitt et al., 2003), and the rejection-identification model in particular (Branscombe et al., 1999) would suggest, confirming that identification may act as a coping resource for individuals who deal with intercultural transitions.

However, the latter finding indicates that this is only true for identification with some minority groups. Identification with the home country may actually prevent an individual from

adapting and render symbolic threat even more harmful. In some way, this aggravating effect corresponds with findings from acculturation research. For instance, Berry and colleagues (2006) showed a negative association between an “ethnic profile”, characterized by a strong identification with one’s heritage culture, and socio-cultural adaptation, but not with psychological adaptation. Similarly in our study, socio-cultural and academic adaptation suffered most from the negative influence of home country identification.

These results add to what was found in previous research. For instance, Schmitt and colleagues’ (2003) study conducted with a similar sample in the American context found a protective effect of identification with the group of international students, but no effect for identification with co-nationals. The authors argued that membership in a specific national group and its collective experience was not relevant to participants’ experiences with discrimination, whereas the group of international students was. In their view, participants faced discrimination as foreign students, and not as nationals of a specific country, and identification with the group of international students was protective because that category was relevant in this context.

While this explanation may be valid in our case as well, it must be considered that the context of our study is different. First, our participants were overwhelmingly European and sojourning in other European countries. Most student exchange within Europe is covered by the Erasmus program, and participating in the program is highly regarded. Hence, the Erasmus students group is attractive. Although this may not entirely protect Erasmus students against discrimination, it is also unlikely that the membership in this group would have a particular association with discrimination. We are inclined to think that in this specific case, the group of Erasmus students is the relevant group not because, as Schmitt and colleagues argued, it is discriminated, but because membership connects the individual to the local context of the host

country. This group is the one Erasmus students interact with in their day-to-day life abroad, share similar experience and similar intercultural challenges with, and form friendships within. It is, therefore, the feeling of belonging to a valuable and meaningful social group present in the host country and available on a daily basis, which has a protective function.

Second, similar to Schmitt and colleagues (2003), we did not find any main effects of home country identification. We found, however, that a high identification with one's national group indeed makes adaptation more difficult when the host culture is perceived as threatening and incompatible with one's native culture. Similarly, van der Zee, Atsma and Brodbeck (2004) reported that identification with one's cultural background had a negative effect on well-being in student groups characterized by high cultural diversity, which could also be associated with symbolic threat. In contrast to the student group, the national ingroup is not associated with the local context of the host country, but it represents a cultural reality that participants have temporarily left behind. It seems that it is the feeling of belonging elsewhere, to a distant cultural reality, that undermines well-being and adaptation. The more the ties with that distant culture are valued, the more difficult it becomes to handle the perceived dissimilarity of the host culture.

Moreover, the differential effects of co-national identification and identification with international students on adaptation may be interpreted in terms of the availability of the two groups as sources of social support. Compared to the group of international students, co-nationals may be less available and thus less likely to be considered as a primary source of support. Consequently, identifying with the student group may be more efficient in protecting one's well-being against perceived discrimination (as predicted by the rejection-identification model). In contrast to that, when one's identification with the heritage culture is strong and perceived as threatened, one may cope with it by diminishing identification with, or cross-

cultural adaptation to, the majority culture, as suggested by the rejection-disidentification model (Jasinskaya-Lahti, Liebkind & Solheim, 2009).

Finally, it is also worth noting that the buffering role of identification with the group of international students and the aggravating role of identification with the home country were consistent across most outcomes (except Academic Adaptation for the former factor and Psychological Adaptation for the latter factor). Thus, identification appears to be a relevant factor for a broad scope of dimensions and contexts of adaptation.

Taken together, our findings demonstrate the importance of specific features of the minority group one identifies with. They speak in favor of the argument that having strong social ties within the local context of the host country, but not necessarily with the host-national group, is a coping resource, while having strong social ties with the home country context is counter-adaptive. Going beyond a simple replication of the negative effects of heritage culture identification suggested by previous research (Berry, 2006b; Berry et al., 2006; Yoon et al., 2012), our study sheds some light on the mechanism behind these effects showing that high levels of home country identification may make cultural differences and social difficulties encountered by the sojourner even more insurmountable.

Limitations

While this study offers valuable insights into the twofold role of social identification for sojourners, it has several limitations. One of them is its cross-sectional character, which does not allow for grasping the causal relations between the examined factors. As a consequence, the processes behind our findings remain speculative. While experimental studies might be difficult

in the real life context of actual cross-cultural adaptation, longitudinal studies in particular are necessary to clarify the directionality of these relations.

Second, because international samples are difficult to access, and it is even more difficult to obtain any data that would go beyond self-reports, our study was conducted online and relied on self-reports to guarantee that a sufficient number of observations would be collected. This may not be without influence on the validity of our findings, although it corresponds with the usual way of proceeding in adaptation research.

Third, while our results are consistent with our moderation hypothesis, it must be noted that we did not find significant effects on all subscales of adaptation. Moreover, the effect sizes of the main and interaction effects of perceived discrimination and identification with international students were much larger than the effects of threat and home country identification. Yet, these latter effects are still theoretically and practically relevant and deserve to be addressed by future research.

Finally, this study focused on a sample composed mainly of students from Western countries and sojourning in Western countries. One could argue that probably these students suffered relatively little discrimination and were threatened by the host culture to a relatively small extent. Indeed, the means of these variables in our sample were rather low and there was little variation in their scores (M = 1.70, SD = 0.66, and M = 2.32, SD = 0.79, respectively). The fact, however, that even in such circumstances we were still able to detect main and moderation effects for both factors offers additional support for the relevance of these effects for the international student population. Still, it would be worthwhile to address this issue in future research by testing whether the patterns remain the same for sojourner samples with higher levels and stronger variation of perceived discrimination and intergroup threat.

Conclusions and Implications for Research and Practice

In conclusion, this study brings at least two novel contributions with several implications for both research and practice. The first contribution consists of clarifying that if strong ties (identification) with home country groups are associated with worse adaptation outcomes (as shown by previous research; Berry, 2006b; Berry et al., 2006; Yoon et al., 2012), it is probably because a strong sense of connection with the home culture translates into a greater difficulty in dealing with the potentially threatening norms and values of the host culture (symbolic threat). The second contribution consists of a step toward conciliating two literatures: research on social identification that has emphasized the positive implications of strong ties with one's minority ingroup, and acculturation research that has suggested that strong ties with the national group may have negative effects for acculturating individuals if they prevail over ties with the host national group (separation; Berry, 2006b; Yoon at al., 2012). Our results show that indeed, minority group identification is positive and may serve as a coping resource as long as the group at stake does not evoke the home country context.

However, it remains an open question whether ties with social groups only support adaptation when these groups belong to the local context, or the lack of association with the home country context is sufficient. Future research could further explore the protective or aggravating role of social ties with different groups and check whether the results vary when a context to which they belong is specified (e.g., host-national friends, co-national friends) or unspecified (e.g., friends). It should also look more closely at other possible contexts and conditions that determine if a protective or a counter-adaptive effect is obtained.

This study also has implications for policymakers and authors of insertion programs at institutions hosting international students, and possibly other international groups (e.g., companies with international employees, organizations working with recent migrants). Since, as we have shown, identification with social groups within the new cultural context is protective and facilitates adaptation, interventions aiming at promoting foreigners' inclusion in such groups could be an effective way to support their adaptation process.

Such interventions should focus on similarities rather than national differences, but they do not necessary need to target groups belonging to the mainstream culture. As our findings suggest, the actual presence of the group within the new cultural context is enough to provide the foreigner with a feeling of belonging to this context. Ideally, such a group should represent to foreigners what the international students group represented to our participants: a shared experience, availability on a daily basis, friendship ties, etc.

Interestingly, such groups emerge spontaneously. For example, clubs for expatriate employees sojourning in specific locations (e.g., InterNations with their branches in a number of locations, IamExpats for expatriates in the Netherlands, Costa Women for female expatriates in Spain, etc.) have members of diverse nationalities who engage in common online and offline activities. Whereas these are formed out of the need of their members, it may be possible to stimulate and support the creation of similar groups based, for example, on common interests (music, sport) or common causes (working for local communities, ecology, taking care of senior people), by policy and strategic initiatives undertaken by organizations working in the field of immigration.

Chapter 5.

The Neglected C of Intercultural Relations. Cross-Cultural Adaptation Shapes Sojourner Representations of Locals

This chapter was submitted as:

Bierwiaczonek, K., Waldzus, S., & van der Zee, K.I. (*submitted*). The Neglected C of Intercultural Relations: Cross-Cultural Adaptation Shapes Sojourner Representations of Locals. Paper drafts have been presented at the 2017 European Social Cognition Network Meeting (ESCON), 23– 27/08/2017, Warsaw, Poland; the 18th General Meeting of the European Association of Social Psychology (EASP), 5 – 8/07/2017, Granada, Spain; and at the 23rd International Congress of the International Association for Cross-Cultural Psychology (IACCP), 30/07 – 03/08/2016, Nagoya, Japan.

Abstract

We investigated, by means of the Reverse Correlation Task (RCT), visual representations of the culturally dominating group of local people held by sojourners as a function of their degree of cross-cultural adaptation. In three studies, using three different methods (reduced RCT, full RCT, conceptual replication) with three independent samples of sojourners and seven independent samples of Portuguese and US-American raters, we gathered clear evidence that poor adaptation goes along with more negative representations of locals. This indicates that sojourner adaptation is reflected, at a social-cognitive level, in the valence of outgroup representations.

Keywords: cross-cultural adaptation, outgroup representations, reverse correlation task

While the increasing cultural diversity of contemporary societies brings new opportunities for socio-cultural development, it also carries the risk of intergroup tensions. Hostile responses toward a perceived increase in cultural, ethnic or other diversity can take various forms, from prejudice and discrimination (cf. Wright & Taylor, 2007) to radicalization and acts of violence (cf. Hafez & Mullins, 2015). As previous research shows, intergroup tension is reflected in people's visual representations of ethno-cultural outgroups. For instance, majority members who are highly prejudiced against immigrants visualize a prototypical face of this outgroup as criminal and untrustworthy (Dotsch, Wigboldus, Langner & Van Knippenberg, 2008).

An analogous phenomenon could be expected for minority members, for example sojourners who fail to adapt to the host culture. Sojourners with adaptation difficulties are known to perceive high intergroup tension (Wilson, Ward, & Fischer, 2013), and it seems reasonable to assume that such perceptions are partly reflected in social cognitions, that is, in negative representations of locals. The current set of studies investigates, by means of Reverse Correlation (Dotsch et al., 2008), visual representations of the cultural majority held by sojourners as a function of their degree of cross-cultural adaptation.

Cross-Cultural Adaptation and Social Cognition

According to the ABC model of intercultural contact (Ward, Bochner, & Furnham, 2001; see Figure 1), adaptation occurs at three levels: Affect, Behavior and (social) Cognition. In research practice, however, adaptation tends to be studied as bi-dimensional. The first dimension, psychological adaptation, is related to Affect and refers to sojourner well-being; the second dimension, socio-cultural adaptation, is related to Behavior and refers to the quality of sojourner

functioning within the host culture (Searle & Ward, 1990; Ward et al., 2001). Cognitive adaptation has received much less attention so far.

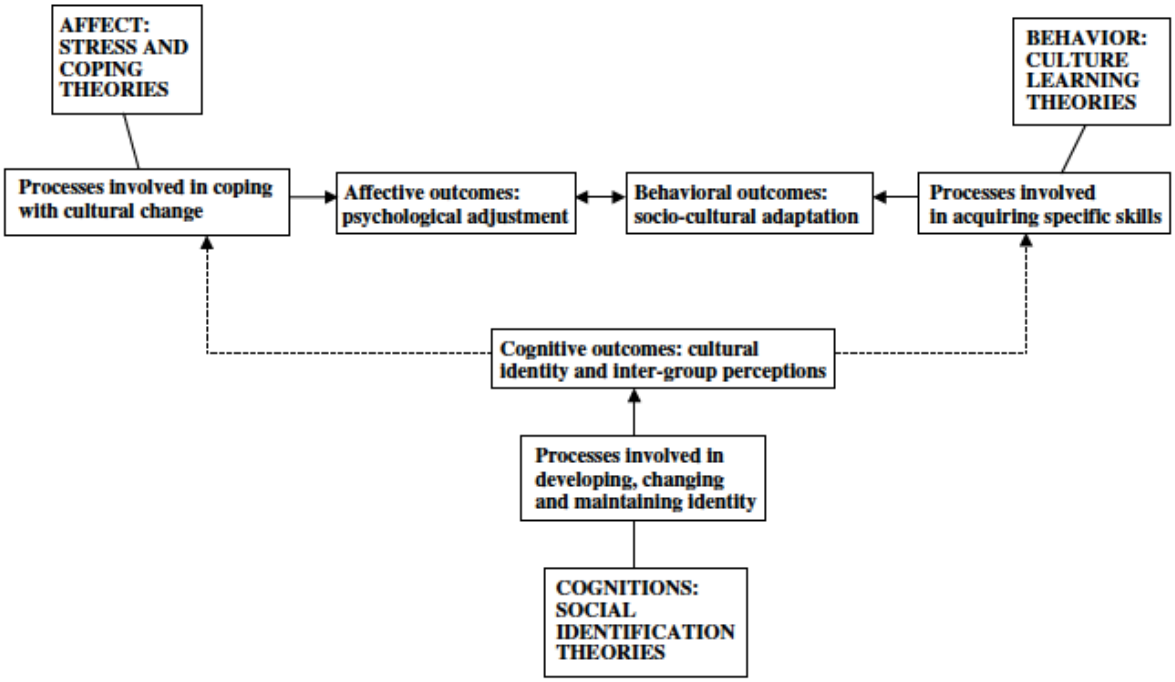

Figure 1. The ABC model of intercultural contact

Source: Ward, Bochner & Furnham, 2001

Most research on adaptation-related cognition has studied social identity shifts resulting from intercultural contact within the broader framework of acculturation research under the assumption that such identity shifts precede adaptation outcomes in a causal chain (cf., Ward et al., 2001; Berry, 1997; Ward & Geeraert, 2016). That is, the social-cognitive aspect of adaptation is considered as part of the overall process rather than an outcome, and has hardly ever been addressed as a distinct third dimension of cross-cultural adaptation. Yet, there are valid

theoretical and empirical reasons for doing so. With our research, we intend to fill this gap in the literature by examining how sojourner representations of a typical local person are empirically interrelated with affective and behavioral adaptation.

International transitions usually imply entering a social reality dominated by the cultural outgroup, the local people. Intergroup phenomena such as perceived discrimination (r = -.50, the strongest effect in the meta-analysis by Wilson, Ward, & Fischer, 2013; and r = -.41, one of the strongest effects in the meta-analysis by Bierwiaczonek et al., *under review*; Chapter 3 of this thesis) have an impact on cross-cultural adaptation, and our expectation is that this impact is partly reflected in social cognitions, that is, in negative outgroup representations. We understand these representations as the visual encoding of an overall negative stereotype (cf., Dotsch et al., 2008).

Theoretically speaking, there are several reasons why psychological and socio-cultural adaptation should be reflected at the social-cognitive level. First, negative stereotypes go in line with negative expectations concerning the behavior of the local people, which generates intergroup threat and intergroup anxiety; these, in turn, translate into negative emotions and stress (Stephan & Stephan, 1996; Riek, Mania & Gaertner, 2006), that is, undermine psychological and socio-cultural adaptation (Bierwiaczonek, Waldzus & van der Zee, 2017; Chapter 4 of this thesis). Second, low levels of socio-cultural adaptation are characterized by uncertainty how to behave and unawareness of cultural constraints of local people's behaviors. Uncertainty contributes to intergroup anxiety and to feelings of threat (Stephan & Stephan, 1996; Riek et al., 2006). Unawareness increases the likelihood of attributing behaviors of locals to their alleged negative characteristics (Gilbert & Malone, 1995; Gawronski, 2004). Such

correspondence bias may then be generalized to the entire host-national group, contributing to a negative representation (Mackie et al., 1996).

Finally, there is evidence to suggest that poor psychological and socio-cultural adaptation and negative cognitions may be products of the same relevant context conditions, such as low quality of intergroup relations. Negative contact experiences may both undermine psychological and socio-cultural adaptation (Bierwiaczonek et al., *under review*; Chapter 3 of this thesis) and contribute to negative attitudes towards locals (Barlow et al., 2012), possibly translating into a negative representation. At the same time, holding negative representations of and expectations towards locals can be considered appropriate if an intergroup relation is perceived as hostile, abusive or conflictual (Jasinskaja-Lahti et al., 2009).

Conversely, the better the adaptation, the higher the awareness of the local culture and sojourners' capacity to cope with it (Ward et al., 2001). Higher awareness may add complexity to pre-existing representations of locals, reduce uncertainty, intergroup anxiety and threat (Stephan & Stephan, 1996; Riek et al., 2006) and decrease the probability of attributing negative traits through correspondence bias (Gilbert & Malone, 1995; Gawronski, 2004). All of these should result in more positive representations of locals.

In sum, there are several plausible reasons to predict a link between sojourners adaptation and their representations of locals, yet this relation has not been studied so far in an unobtrusive way. Since the Affective, Behavioral and Cognitive level of adaptation are hypothesized to be interrelated, we expect that psychological and socio-cultural adaptation correlate positively with the valence of visual representations of locals held by sojourners (*H1*).

The Current Studies

In a set of three studies, we examined sojourner representations of locals by means of the Reverse Correlation Task (RCT; Dotsch et al., 2008; Dotsch & Todorov, 2011). This task was considered optimal for our purposes because it allows for tapping into visual representations of any social group of interest while avoiding social desirability. RCT was previously used to grasp visual representations of ethno-cultural minority outgroups such as immigrants, as well as intergroup phenomena such as prejudice, showing that intergroup attitudes are reflected in the valence of outgroup representations (Dotsch et al., 2008; Imhoff et al., 2011).

Study 1

Methods in Phase I: Creation of Classification Images for the RCT

Sample and procedure. Emails requesting assistance with the recruitment of participants were sent to the International Offices of seven Portuguese universities who forwarded a link to our online survey to international students. Out of 160 started surveys, 122 were completed, resulting in a dropout rate of 24%, which is relatively low for online studies (Galesic, 2006). Four other participants were dropped because their adaptation scores were missing. The final sample consisted of 118 international students residing in Portugal (31.4% male, mean age: 25.6 years, 89% sojourning in Portugal for 12 months or less; most represented home countries: 13.6% Brazil, 11.9% Italy, 9.3% Poland, 32 other countries, each of them accounting for less than 5% of the sample).

Reverse Correlation Task. We followed the RCT procedure developed by Dotsch and colleagues (2008). However, while in a regular RCT participants usually perform 300-770 trials (cf. Imhoff et al., 2013; Dotsch & Todorov, 2011; Dotsch et al., 2008), in our study this number

was reduced to enable using RCT online. Each participant was presented a randomized set of 50 out of a pool of 300 trials. All stimuli consisted of face images that were built of the same base face with random noise superposed. The base face was a morph of photographs of male faces taken in Lisbon as part of the artistic project The Face of Tomorrow (Mike, 2003). Morphs from this project were previously used in RCT studies (see Imhoff et al., 2011; Imhoff & Dotsch, 2013). Within each trial, two stimulus faces were presented side by side and participants were instructed to choose the one that looked more like a typical Portuguese person. One stimulus face consisted of the base face superimposed with a random noise pattern. The other was the base face superimposed with the negative of the same noise pattern (for technical details, see Dotsch et al., 2008; Dotsch & Todorov, 2011). The RCT was followed by adaptation measures and sociodemographic questions.

Cross-Cultural Adaptation. Cross-cultural adaptation was measured by the Brief Psychological Adaptation Scale (BPAS; Demes & Geeraert, 2014) and the Socio-cultural Adaptation Scale (SCAS; Ward & Kennedy, 1999), using five-point Likert scales for both instruments.

BPAS (8-items) is a measure of psychological outcomes specific for the cross-cultural context. It has been validated on a large sample of sojourners (N = 1,929) and shown to correlate in expected directions with constructs typically used in adaptation research to operationalize psychological adaptation (stress, anxiety, self-esteem, and satisfaction with life; see Demes & Geeraert, 2014). Sample items are: “In the last 2 weeks, how often have you felt excited about being in your host country?” (+) and “In the last 2 weeks, how often have you felt out of place, like you don’t fit into the host country’s culture?” (-). Cronbach’s alphas were .80 in the current study, .84 in Study 2 and .62 in Study 3.

SCAS (17 items in this study) has been widely used in adaptation research and validated in various sojourner samples (see Wilson et al., 2013, for a review). Participants were asked how difficult it was for them to deal with everyday matters in the host country (e.g., "Making friends", "Getting used to the pace of life"). Reversed coding was used so that higher scores indicated better adaptation. Cronbach's alphas were .86 in the current study, .78 in Study 2 and .71 in Study 3.

In line with the ABC model (Ward t al., 2001), the two scales were strongly correlated in all three studies (.48, .58, .59; all *p*s < .01). To obtain participants' overall cultural adaptation scores, we averaged scores on both scales to ensure that both scales have equal weight. Afterwards, the sample was split on the 33rd and the 66th percentile into three groups: low adaptation ($N = 39$, $M = 3.00$, $SD = 0.34$), moderate adaptation ($N = 39$, $M = 3.69$, $SD = 0.13$), and high adaptation ($N = 40$, $M = 4.21$, $SD = 0.19$). We computed three Classification Images (CIs) by averaging all images chosen by all participants within each of these three groups (see Figure 2) using the R package rcicr 0.3.0 (Dotsch, 2015). The three CIs were evaluated in Phase II.

Sociodemographic variables. The survey included questions about participants' age, gender, home country, host university, length of stay in Portugal, and the amount of contact with local people inside and outside of the university.

While the procedure developed by Dotsch and colleagues (2008) only includes one evaluation, in our case the first evaluation gave unexpected results which, we assumed, had to do with the fact that raters were members of the RCT target population (Portuguese). Therefore, we recurred to two other independent rater samples: American raters (unrelated to the RCT target population) and Portuguese (to test whether the unexpected results were indeed due to

nationality; see supplementary materials available upon request, Appendix D, for the full rationale). None of the rater samples was informed that the CIs represented “typical Portuguese” faces as seen by sojourners. Raters were simply informed that they were participating in a study that examines “people’s representations of others” and that they would be requested to evaluate images of human faces, with no further explanations. The CIs were presented to each rater in randomized order.

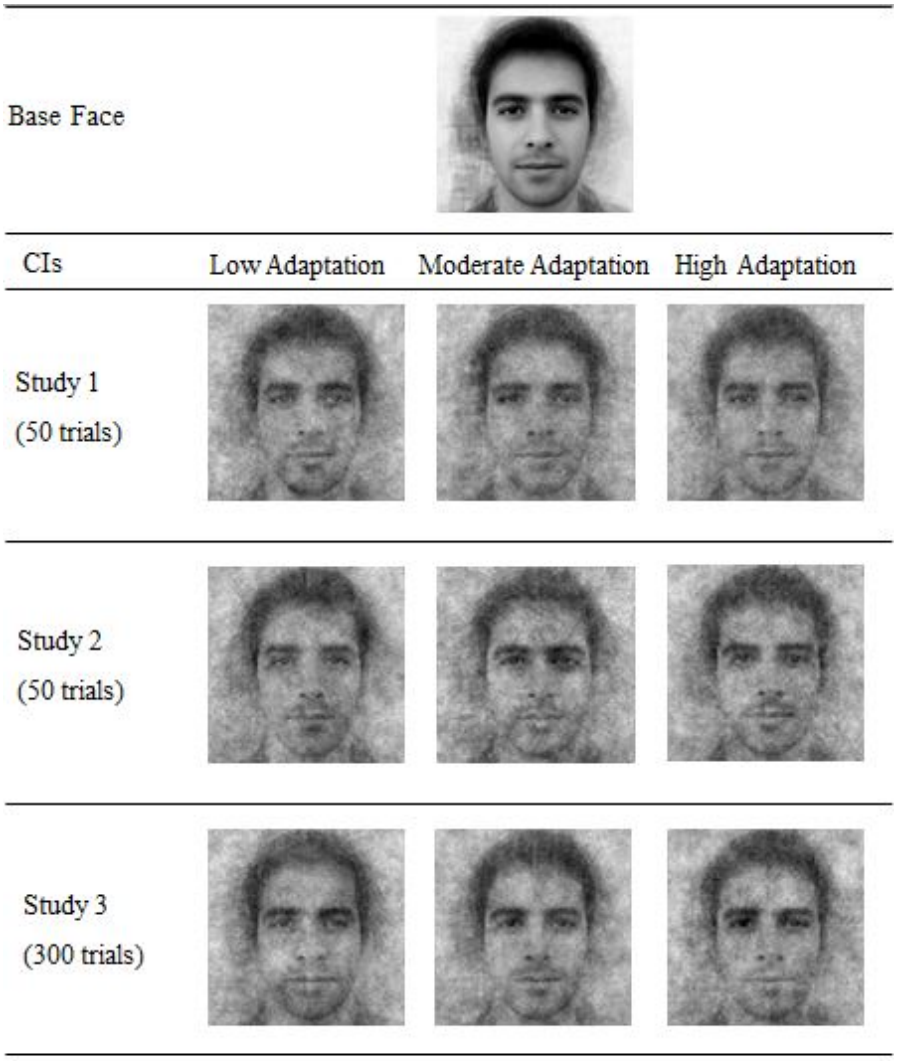

Figure 2. Classification images per adaptation level obtained in Study 1-3.

First, 50 Portuguese students (28% male, mean age: 26.22 years, mostly students of psychology - 64%) evaluated the CIs in an online survey in Portuguese. In a within subject design, participants were requested to rate each CI on 1-10 continuous scales (sliders) on a set of 12 theoretically derived adjectives which tapped into the two hypothetical dimensions of stereotype content, that is warmth (Trustworthy, Helpful, Friendly, Attractive, Sociable), competence (Interesting, Intelligent, Competent; cf. Cuddy, Fiske & Glick, 2008) or were considered as relevant for sojourner adaptation as related to potential intergroup tensions (Tolerant, Closed-Minded, Aggressive, Dangerous). Exploratory factor analyses with principal axis factoring and oblimin rotation conducted separately for ratings of each CI consistently extracted two different factors: positive adjectives and negative adjectives. In Studies 1-3, correlations between these factors (calculated separately for the low, moderate and high adaptation CIs and for each rater sample) ranged from .03 to -.46. We calculated composite scores for these two factors by averaging, separately, scores on positive (Cronbach's α range for low, moderate and high adaptation CIs across the three studies reported in this paper: .92 – .96) and on the negative adjectives (α range: .78 – .94).

Additionally, raters were shown the three CIs side by side and responded to three forced choice questions: "If you had to choose one of these three people, who would you choose to…" (a) "…share your room in campus or a student flat with", (b) "…carry out some university work with", (c) "…go to the cinema or a party with". Raters also responded to questions about their age, gender, study domain and whether they were of Portuguese nationality.

Second, the CIs obtained in Phase I were re-evaluated by 50 American raters recruited via Amazon's Mechanical Turk (62% male, mean age: 31.5 years) in an online survey. We

employed English versions of the items used in the first evaluation, adapted to a non-academic context whenever necessary (e.g., “Who would you choose to be your neighbor” instead of “share your room in campus”). We also included an additional forced-choice question related to intergroup threat: “Which person you would never want to meet in a dark empty street at night?”

Third, the CIs were re-evaluated by a different, independent sample of 50 Portuguese students (46.3% male, mean age: 20.6 years, most represented study domains: psychology 31.5%, management 24.2%). We used the same online survey as in the first evaluation, but we added two more dimensions to grasp identity-related aspects (“Similar to yourself”; “Similar to a typical Portuguese”) and the forced-choice question related to intergroup threat: “Which person you would never want to meet in a dark empty street at night?”

Results

To analyze the evaluation data, we conducted repeated measures ANOVAs separately for the two composites of positive adjectives and negative adjectives, as well as for each individual adjective on which the CIs were rated. The results for composite measures are reported in Table 1. The results for individual adjectives can be found in the supplementary materials available upon request, Appendix C. Moreover, we used the chi-squared test to check for differences in frequencies of choosing each CI in the forced-choice questions. The results of these analyses are reported in Table 2.

In the first evaluation, we found significant differences on positive adjectives. As expected, Portuguese raters evaluated the low adaptation CI lower on positive characteristics than the remaining CIs. Pairwise comparisons showed that the only significant mean difference resided between the low adaptation CI and the moderate adaptation CI (p = .02). However, the moderate adaptation CI was evaluated more positively than the high adaptation CI. This

unpredicted quadratic effect was significant, while the linear effect was not. The results on the composite for negative adjectives and on all forced choice questions (all *p*s > .20) were not significant.

In the second CI evaluation by American raters, we found a significant linear effect on negative adjectives, with the low adaptation CI evaluated most negatively and the high adaptation CI evaluated least negatively. A similar linear pattern was found for the forced choice question "Which person you would never want to meet in a dark empty street at night?" The results on the composite for positive adjectives and on the remaining forced choice questions (all *p*s > .07) were not significant.

The third evaluation by a different sample of Portuguese students replicated the pattern found in the first evaluation. This time, significant quadratic effects were found for both positive adjectives and negative adjectives, with a significant mean difference residing in both cases between the low adaptation CI and the moderate adaptation CI (*p*s < .003). A similar quadratic pattern was found for one forced-choice question ("Who would you choose to… go to the cinema or a party with"). The remaining forced choice questions showed significant results with a linear pattern, with the low adaptation CI chosen least frequently as the person to share a room with or to do university work with, and most frequently as the person not to meet in a dark street (χ^2 (2) = 38.11, p < .001). Differences in evaluations on the two dimensions added in this evaluation ("Similar to yourself", "Similar to a typical Portuguese") were non-significant (all *p*s > .20).

Table 1

Evaluations of Classification Images on Positive and Negative adjectives Across Studies 1-3

	Positive Adjectives						Negative Adjectives					
	M_{low}	SE_{low}	M_{mod}	SE_{mod}	M_{high}	SE_{high}	M_{low}	SE_{low}	M_{mod}	SE_{mod}	M_{high}	SE_{high}
Study 1												
Evaluation 1 (PT)	4.37	0.25	4.95	0.24	4.67	0.26	3.08	0.31	2.54	0.27	2.98	0.28
	$F(2, 96) = 4.01$, $p = .02$, $\eta_p^2 = .08$, $\eta^2 = .02$						$F(2, 96) = 2.40$, $p = .10$, $\eta_p^2 = .05$, $\eta^2 = .01$					
	Quadratic contrast: $F(1, 48) = 7.96$, $p = .01$, $\eta_p^2 = .14$						Quadratic contrast: $F(1, 48) = 4.20$, $p = .05$, $\eta_p^2 = .08$					
	Linear contrast: $F(1, 48) = 1.74$, $p = .19$, $\eta_p^2 = .04$						Linear contrast: $F(1, 48) = 0.17$, $p = .68$, $\eta_p^2 = .00$					
Evaluation 2 (US)	5.74	0.21	5.92	0.21	5.87	0.23	3.55	0.27	3.05	0.29	3.03	0.27
	$F(2, 98) = 0.52$, $p = .60$, $\eta_p^2 = .01$, $\eta^2 = .00$						$F(2, 98) = 3.55$, $p = .03$, $\eta_p^2 = .06$, $\eta^2 = .07$					
	Quadratic contrast: $F(1, 49) = 0.68$, $p = .41$, $\eta_p^2 = .01$						Quadratic contrast: $F(1,49) = 1.75$, $p = .19$, $\eta_p^2 = .03$					
	Linear contrast: $F(1, 49) = 0.41$, $p = .53$, $\eta_p^2 = .01$						Linear contrast: $F(1,49) = 5.02$, $p = .03$, $\eta_p^2 = .09$					
Evaluation 3 (PT)	4.03	0.25	4.73	0.29	4.43	0.27	3.07	0.26	2.44	0.28	2.80	0.26
	$F(2, 102) = 7.35$, $p = .00$, $\eta_p^2 = .13$, $\eta^2 = .02$						Greenhouse-Geisser $F(1.56, 78.14) = 4.35$, $p = .02$, $\eta_p^2 = .08$, $\eta^2 = .02$					
	Quadratic contrast: $F(1, 51) = 9.90$, $p < .001$, $\eta_p^2 = .16$						Quadratic contrast: $F(1, 50) = 5.84$, $p = .02$, $\eta_p^2 = .11$					
	Linear contrast: $F(1, 51) = 4.81$, $p = .03$, $\eta_p^2 = .09$						Linear contrast: $F(1, 50) = 1.99$, $p = .16$, $\eta_p^2 = .04$					
Study 2												
Evaluation 1 (PT)	4.08	0.25	4.10	0.22	4.58	0.27	3.04	0.29	3.37	0.33	2.26	0.24
	$F(2, 88) = 5.01$, $p = .01$, $\eta_p^2 = .10$, $\eta^2 = .02$						$F(2, 86) = 2.63$, $p = .08$, $\eta_p^2 = .06$, $\eta^2 = .02$					
	Quadratic contrast: $F(1, 44) = 1.88$, $p = .18$, $\eta_p^2 = .04$						Quadratic contrast: $F(1, 43) = 3.33$, $p = .07$, $\eta_p^2 = .07$					
	Linear contrast: $F(1, 44) = 9.31$, $p < .001$, $\eta_p^2 = .18$						Linear contrast: $F(1, 43) = 1.75$, $p = .19$, $\eta_p^2 = .04$					

Evaluation 2 (US)	5.19	0.22	5.09	0.22	5.79	0.20	3.87	0.26	4.15	0.29	3.24	0.22
					$F(2,108)=5.64$, $p = .005$, $\eta_p^2 = .10$, $\eta^2 = .04$		Greenhouse-Geisser $F(1.75, 94.71) = 4.31$, $p = .02$, $\eta_p^2 = .07$, $\eta^2 = .04$					
					Quadratic contrast: $F(1, 54) = 3.54$, $p = .06$, $\eta_p^2 = .06$		Quadratic contrast: $F(1, 54) = 3.38$, $p = .07$, $\eta_p^2 = .06$					
					Linear contrast: $F(1, 54) = 8.70$, $p = .01$, $\eta_p^2 = .14$		Linear contrast: $F(1, 54) = 6.34$, $p = .02$, $\eta_p^2 = .11$					
Study 3												
Evaluation 1 (PT)	3.56	0.24	4.03	0.23	4.48	0.23	3.67	0.27	3.35	0.25	2.89	0.29
					$F(2, 90) = 9.36$, $p < .001$, $\eta_p^2 = .17$, $\eta^2 = .06$		$F(2, 84) = 3.79$, $p = .03$, $\eta_p^2 = .08$, $\eta^2 = .03$					
					Quadratic contrast: $F(1, 45) =.01$, $p = .93$, $\eta_p^2 = .00$		Quadratic contrast: $F(1, 42) =.07$, $p = .79$, $\eta_p^2 = .00$					
					Linear contrast: $F(1, 45) = 15.71$, $p < .001$, $\eta_p^2 = .26$		Linear contrast: $F(1, 42) = 7.20$, $p = .01$, $\eta_p^2 = .15$					
Evaluation 2 (US)	4.67	0.22	5.21	0.22	5.45	0.22	4.24	0.24	3.83	0.25	3.40	0.23
					$F(2, 106) = 9.52$, $p < .001$, $\eta^2 = .04$		$F(2, 106) = 6.01$, $p = .00$, $\eta_p^2 = .10$, $\eta^2 = .04$					
					Quadratic contrast: $F(1, 53) =.97$, $p = .33$, $\eta_p^2 = .02$		Quadratic contrast: $F(1, 53) = 5.01$, $p = .97$, $\eta_p^2 = .00$					
					Linear contrast: $F(1, 53) = 16.65$, $p < .001$, $\eta_p^2 = .24$		Linear contrast: $F(1, 53) = .00$, $p < .001$, $\eta_p^2 = .17$					

Note. Mean evaluations and standard errors of Classification Images (CIs) obtained in the three studies are reported. Indexes $_{\text{low, mod, high}}$ refer to mean evaluations of the low adaptation CI, moderate adaptation CI and high adaptation CI, respectively.

Table 2

Frequencies of Choosing Classification Images (Cis) In Forced-Choice Questions Across Studies 1-3

	Cinema			Work			Neighbor/Roommate			Dark Street		
	Low	Mod	High	Low	Mod	High	Low	Mod	High	Low	Mod	High
Study 1												
Evaluation 1 (PT)	15	17	17	13	15	21	11	17	21	-	-	-
	χ^2 (2) = .16, *p* = .92			χ^2 (2) = 2.12, *p* = .35			χ^2 (2) = 3.10, *p* = .21					
Evaluation 2 (US)	9	20	21	10	19	21	10	18	22	29	15	6
	χ^2 (2) = 5.32, *p* = .07			χ^2 (2) = 4.12, *p* = .13			χ^2 (2) = 4.48, *p* = .11			χ^2 (2) = 16.12, *p* < .001		
Evaluation 3 (PT)	10	25	19	6	23	25	6	21	27	39	11	4
	χ^2 (2) = 6.33, *p* = .04			χ^2 (2) = 12.11, *p* = .002			χ^2 (2) = 13.00, *p* = .002			χ^2 (2) = 38.11, *p* < .001		
Study 2												
Evaluation 1 (PT)	9	9	27	5	11	29	10	8	27	13	27	5
	χ^2 (2) = 14.40, *p* < .001			χ^2 (2) = 20.80, *p* < .001			χ^2 (2) = 14.53, *p* < .001			χ^2 (2) = 16.53, *p* < .001		
Evaluation 2 (US)	15	11	27	22	8	23	16	5	32	14	31	8
	χ^2 (2) = 7.85, *p* = .02			χ^2 (2) = 7.96, *p* = .02			χ^2 (2) = 20.87, *p* < .001			χ^2 (2) = 16.11, *p* < .001		

Study 3												
Evaluation 1 (PT)	5	16	25	3	17	26	5	15	26	28	9	7
	$\chi^2(2) = 13.09$, $p = .001$			$\chi^2(2) = 17.52$, $p < .001$			$\chi^2(2) = 14.39$, $p = .001$			$\chi^2(2) = 18.32$, $p < .001$		
Evaluation 2 (US)	7	25	22	4	26	24	10	22	22	32	12	10
	$\chi^2(2) = 10.33$, $p = .006$			$\chi^2(2) = 16.44$, $p < .001$			$\chi^2(2) = 5.33$, $p = .07$			$\chi^2(2) = 16.44$, $p < .001$		

Note. Frequencies of choosing each of the Classification Images (CIs) in forced-choice questions in the three studies are reported. Low, mod, high refer to the low adaptation CI, moderate adaptation CI and high adaptation CI, respectively.

Discussion of Study 1

Study 1 partially supported our hypothesis. While not all differences were significant, the overall pattern shows that across the three evaluations, the low adaptation CI was consistently rated less positively than the moderate and high adaptation CIs. However, instead of the expected linear effect, we found a quadratic pattern for Portuguese raters: it was the moderate adaptation CI that had the most positive evaluations, not the high adaptation CI. This pattern was replicated with a second independent sample of Portuguese raters, ruling out the possibility of the result being spurious.

As this quadratic pattern was limited to raters from the target population (i.e., Portuguese), we hypothesized that high adaptation increases ingroup projection (Wenzel, Mummendey & Waldzus, 2007), rendering the CI produced by highly adapted sojourners more similar to the self-stereotype of their home country population than to the self-stereotype of the host country population. However, because this pattern of results was only found in this study and did not reoccur in its replications, we abstain from developing on this hypothesis here. An interested reader may refer to the supplementary materials, Appendix D, for more details.

Study 2

Methods

Study 2 was designed as a conceptual and direct replication of Study 1 and followed a similar procedure. It was conducted in the following academic year to ensure sample independence.

In Phase I, participating universities were requested to disseminate the online survey only among new international students. To ensure sufficient sample size, we also reached out to

expatriate academics from these universities using their public contact details from university websites. A mixed sample of 154 international students (80.5%) and expatriate academics (i.e., post-docs, 19.5%) (41.6% male; 52.6% aged 21-25 years, 22% aged 26-35 years, 10.3% aged over 36 years and 9.7% aged below 20 years; 78% sojourning in Portugal for 12 months or less; most represented countries: Brazil, 14.9%; Italy, 12.3%; Germany, 9%; 39 other countries with ≤ 5%) completed an online survey consisting of the same assessment instruments as in Study 1 (direct replication). The dropout rate was 58.4%, which is high but not unusual in online studies (Galesic, 2006).

Additionally, right after the RCT participants were shown, side by side, the low, moderate and high adaptation CIs from Study 1 and they were instructed, identically as in the RCT, to choose the CI that looked most like a typical Portuguese person. We assumed that, if the CIs truly corresponded with sojourner representations of locals at different levels of adaptation, participants should choose the CI corresponding with their own adaptation level (conceptual replication). After calculating overall adaptation scores, the sample was split on the 33rd and 66th percentile into three groups: low adaptation (N = 51, M = 3.09, SD = 0.35), moderate adaptation (N = 55, M = 3.80, SD = 0.16), and high adaptation (N = 48, M = 4.31, SD = 0.20).

In Phase II, the CIs obtained using the procedure of Dotsch and colleagues (2008; see Study 1) were evaluated by two rater samples: 46 Portuguese students (48.9% male, mean age: 20.4 years, most represented study domains: management 48.9%, psychology 29.8%) and 53 American raters recruited via MTurk (62.3% male, mean age: 34.3 years). We used an identical survey as employed previously in the third evaluation in Study 1.

Results

Conceptual replication. As expected, the degree of cross-cultural adaptation of participants in Study 2, Phase I was positively correlated with the level of adaptation (1 – low, 2 – moderate, 3 – high) of the CI from Study 1 these participants indicated as most typically Portuguese (Spearman's $\rho = .18$, $p = .03$). A chi-squared test conducted after sample split on the 33rd and the 66th percentile confirmed that participants chose the CIs corresponding with their own degree of adaptation more frequently than the remaining CIs. That is, poorly adapted participants tended to choose the low adaptation CI, moderately adapted participants, the moderate adaptation CI, and highly adapted participants, the high adaptation CI (see Figure 3).

Direct replication. The repeated measures ANOVA testing the differences in the evaluation of the three CIs obtained in Phase I of this study found three significant linear effects (out of four tested; see Table 1): on positive adjectives for both rater samples and for negative adjectives for American raters. The effect on negative adjectives was nonsignificant for Portuguese raters. The pattern of means shows that Portuguese and American raters rated the high adaptation CI the highest on positive adjectives and the lowest on negative adjectives, while differentiating less between the low adaptation CI and moderate adaptation CI. Pairwise comparisons reveal significant mean differences between the low adaptation CI and the high adaptation CI ($p = .01$ for both rater samples on positive adjectives, $p = .04$ for American raters on negative adjectives), and for American raters also between moderate adaptation CI and high adaptation CI ($p = .01$ for positive adjectives, $p = .03$ for negative adjectives). The unexpected quadratic effect found in Study 1 for Portuguese raters did not replicate.

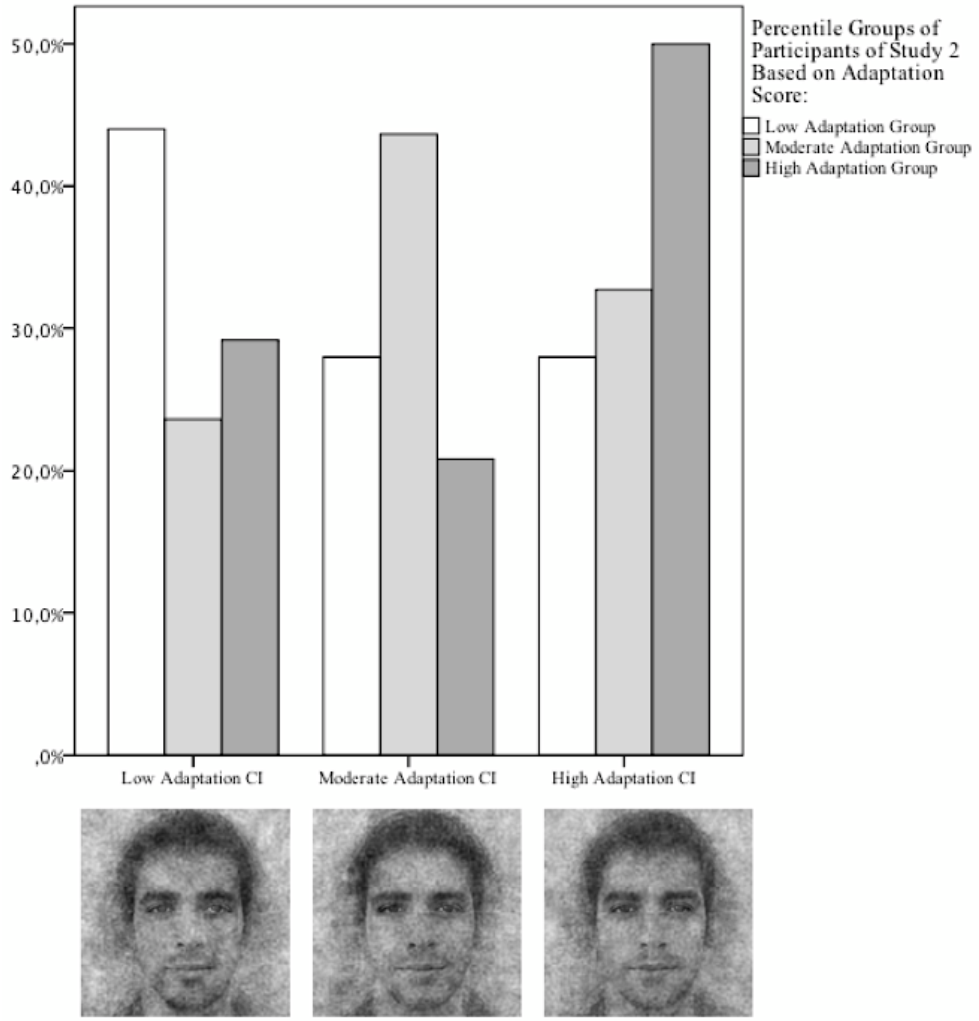

Figure 3. Conceptual replication of Study 1. The bars represent frequencies of choosing the low, moderate and high adaptation CI (obtained in Study 1; x-axis) as the most prototypical Portuguese face by Study 2 participants with low (white bars), moderate (light grey bars) and high (dark grey bars) adaptation level (sample split on the 33rd and the 66th percentile; χ^2 (4) = 11.68, p = .02).

Moreover, Portuguese raters evaluated the moderate adaptation CI as the least similar to a typical Portuguese (Greenhouse-Giesser $F(1.59, 70.02) = 16.00$, $p < .001$; M_{low} =5.67, SE_{low} =

0.40, M_{mod} = 3.96, SE_{mod} = 0.41; M_{high} = 5.56, SE_{high} = 0.38; quadratic contrast: $F(1, 44) = 22.39$, $p < .001$; linear contrast: $p = .67$), while American raters considered this CI as the least similar to themselves ($F(2, 108) = 5.94$, $p = .004$; M_{low} = 3.85, SE_{low} = 0.28, M_{mod} = 3.65, SE_{mod} = 0.29; M_{high} = 4.54, SE_{high} = 0.29; quadratic contrast: $F(1, 54) = 5.57$, $p = .02$; linear contrast: $F(1, 54) = 6.28$, $p = .02$).

Finally, significant differences were found on forced-choice questions (see Table 2). Overall, the high adaptation CI was chosen most often for the positive activities and least often as the person they would not like to meet in a dark street. However, both American and Portuguese raters indicated the moderate adaptation CI most often as the person they would not like to meet in a dark street and American raters least often as their co-worker and their roommate. Raters differentiated less between the low adaptation CI and the moderate adaptation CI on the remaining items (all *p*s > .05).

Discussion of Study 2

In Study 2, the association between sojourner adaptation and sojourner representation of locals was replicated in two manners. First, we confirmed that the CIs obtained in Study 1 accurately tap into outgroup representations at low, moderate and high levels of sojourner adaptation. Although the sojourner sample in Study 2 consisted of different participants than those who created the CIs in Study 1, when requested to choose the most prototypical image, these participants still tended to indicate the CI created by a group with a degree of cross-cultural adaptation corresponding with their own. We therefore concluded that the online RCT with 50 randomized trials was sensitive enough to grasp some features of the representation of locals shared by sojourners with a specific level of adaptation but differing between adaptation levels.

Secondly, we found that sojourner representations of locals are more positive at the high levels of adaptation. Both Portuguese and American raters consistently attributed more positive traits to the high adaptation CI, enabling us to assume that the overall valence effect (*H1*) was replicated. Unexpectedly, the moderate adaptation CI was evaluated similarly, and in some cases even more negatively than the low adaptation CI. Although mean differences between these two CIs were mostly statistically insignificant and the overall trend remained linear, we considered these results non-conclusive and we attempted another replication.

Study 3

Methods

Study 3 was designed as a direct replication of Study 1 with a more sensitive measure, that is, a long version of RCT with 300 trials produced by participants in the lab instead of online. Besides this modification, the procedure and methods used in this study were identical as in Study 1.

For Phase 1, a mixed sample of 22 international students and migrants was recruited both at the first author's university and using personal contacts (27.3% male, 54.5% aged below 30 years and another 31.8% 30-40 years, 50% sojourning in Portugal for 24 months or less, another 45% between 25 months and 10 years; most represented countries: Poland 31.8%, Brazil 22.7%, Germany 18.2%). The sample size was substantially smaller than in Study 1 and 2, but because each participant performed the full set of 300 trials, the overall number of trials completed by this sample (~6600) was comparable to our previous studies (~5900 in Study 1 and ~7700 in Study 2). After calculating overall adaptation scores, the sample was split on 33rd and 66th

percentile into three groups: low adaptation ($N = 7$, $M = 3.12$, $SD = 0.19$), moderate adaptation ($N = 8$, $M = 3.62$, $SD = 0.11$), and high adaptation ($N = 7$, $M = 4.02$, $SD = 0.19$).

In Phase II, CIs produced by the sojourner sample were rated by 46 Portuguese students (32.3% male, mean age: 19.8 years, most represented study areas: management 47.9%, psychology 30.5%) and 53 American raters recruited via MTurk (62.3% male, mean age: 34.3 years). We employed, respectively, the full Portuguese and English version of the survey used previously (third evaluation in Study 1, Study 2).

Results

Consistent significant differences in CI evaluation were found across the two rater samples on both positive and negative adjectives. In all cases, means showed significant linear patterns in the expected directions, that is, the high adaptation CI was evaluated the most positively and the low adaptation CI the most negatively (see Table 1). The significant mean differences resided between the low adaptation CI and the high adaptation CI (all ps < .05 for both rater samples), with one significant effect between the moderate adaptation CI and the high adaptation CI on positive adjectives for Portuguese raters ($p = .04$), and one significant effect between the low adaptation CI and the moderate adaptation CI on positive adjectives for American raters ($p = .005$). Moreover, Portuguese raters evaluated the high adaptation CI as the most similar to a typical Portuguese ($F(2, 86) = 7.30$, $p = .001$; $M_{low} = 5.07$, $SE_{low} = 0.40$; $M_{mod} = 6.00$, $SE_{mod} = 0.37$; $M_{high} = 6.27$, $SE_{high} = 0.37$, linear contrast: $F(1, 43) = 13.92$, $p = .001$; quadratic contrast: $p = .27$), and American raters as the most similar to themselves ($F(2, 106) = 4.97$, $p = .01$; $M_{low} = 3.31$, $SE_{low} = 0.31$; $M_{mod} = 3.83$, $SE_{mod} = 0.32$; $M_{high} = 4.20$, $SE_{high} = 0.30$, linear contrast: $F(1, 53) = 12.33$, $p < .001$; quadratic contrast: $p = .78$).

Finally, there were significant differences in frequencies of choosing the different CIs in forced choice questions. Across both rater samples, the low adaptation CI was the least often indicated as the preferred person to go to the cinema with, to work with, and to cohabitate with (this latter result was non-significant for the American raters) and the most often as the person whom they would not like to meet in a dark street (Table 2). Raters differentiated less between the moderate adaptation CI and the high adaptation CI.

Discussion of Study 3

Study 3 provided further evidence for the link between sojourner adaptation and sojourner representation of locals (*H1*). As such, it can be considered as a second validation of the online RCT with 50 randomized trials used in the previous studies. The evaluation of CIs obtained from the full set of 300 RCT trials was consistent with CI evaluation from Study 1 with 50 randomized trials in that the low adaptation CI was rated the most negatively. This time, there was a neat linear effect across both composites and individual adjectives (see supplementary materials, Appendix C), indicating that the better the adaptation, the more positively sojourners perceive the local people. This result was found regardless of rater nationality.

Meta-Analysis

Methods

Because Studies 1-3 were not entirely equivalent in regard to the shape of the effect of adaptation on sojourner representation of locals we meta-analyzed the results of these studies to determine between which levels of adaptation the effect resides and whether its pattern is dependent upon rater nationality. For all seven evaluations by both Portuguese and American raters, we calculated separate standardized mean differences in CI evaluation (Cohen's *d*)

between low and moderate adaptation, moderate and high adaptation and low and high adaptation. This was done separately for positive adjectives and for negative adjectives. In all cases, the lower adaptation level was taken as the baseline for the calculation so that the effect sizes indicate whether the evaluation is lower (negative sign) or higher (positive sign) at the higher adaptation level than on the lower adaptation level to which it is compared.

These effect sizes were then meta-analyzed with the reverse variance weighting method (Lipsey & Wilson, 2001) using Wilson's (2008) Meta-ES and Meta-F macros for SPSS. Because the operationalization was virtually identical across all evaluations in the three primary studies, we applied fixed effects models to perform homogeneity analyses (Hedges & Vevea, 1998). Finally, we conducted moderation analyses (meta-ANOVAs) using rater nationality as a binary moderator.

Results

Results of the meta-analysis are reported in Table 3. For both positive and negative adjectives, we found significant mean differences between the evaluations of low and high adaptation CIs, as well as between the evaluations of low and moderate adaptation CIs. The former effect sizes (low vs. high) were larger than the latter (low vs. moderate) for both composites. The difference between evaluations of moderate and high adaptation CIs was not significant for neither composite. In all cases, the Q statistics were not significant, indicating that the effects are homogenous.

In line with our predictions, all effect sizes for positive adjectives had a positive sign, that is, the mean CI evaluation was more positive at higher levels of adaptation. All effect sizes for negative adjectives had negative signs, indicating that the mean CI evaluation less negative at higher levels of adaptation. No moderating effects of rater nationality were found (all between-

groups *p*s > .20), indicating that differences in the evaluation of the different CIs do not differ between American and Portuguese raters.

Discussion

The meta-analysis consolidated and reinforced our findings by showing that, all CI evaluations taken together, the degree of sojourner adaptation and the valence of sojourner representations of locals are interrelated. Independently of rater nationality, the significant difference resided between low adaptation level and the remaining levels, suggesting that poorly adapted sojourners hold a relatively negative representation of the host-national outgroup. However, because of the comparatively small and statistically insignificant mean difference between moderate and high adaptation, these results seem to indicate that the empirical link between adaptation and valence of the representation of locals is not equally strong at all adaptation levels.

Table 3

Meta-Analysis of Effect Sizes of CI Evaluation Across Studies 1- 3

	d	*p* (d)	*Q*	*p*(Q)
Positive Adjectives				
Moderate vs. Low	0.26	< .001	8.45	.21
High vs. Low	0.37	< .001	5.22	.52
High vs. Moderate	0.12	.26	12.14	.26
Negative Adjectives				
Moderate vs. Low	- 0.17	.02	8.52	.20
High vs. Low	- 0.28	< .001	2.67	.85
High vs. Moderate	- 0.10	.28	8.58	.20

Note. Standardized mean differences between evaluations of CIs corresponding with different levels of adaptation, calculated as fixed effects models, are reported. In all cases, $k = 7$.

General Discussion

The three studies reported above show that sojourner adaptation is reflected in the valence of sojourner representations of the host national outgroup: poor adaptation at the Affect and Behavior level is correlated with negative visual representations of locals. We assume that these results indicate the hypothesized Cognition level of adaptation: cross-cultural adaptation does not only manifest itself in increased well-being and increased adequacy of behaviors within the host culture, but also in the way we think of typical members of the majority host culture. In this regard, consistent results were obtained using three different methods (reduced RCT, full RCT, conceptual replication) with three independent samples of sojourners and seven independent samples of raters of two nationalities. These findings are in line with both the adaptation literature associating poor adaptation with high intergroup tension (Wilson et al., 2013), and with the intergroup literature associating high intergroup tension with negative representations of outgroups (Dotsch et al., 2008).

Interestingly, the difference in valence of outgroup representations seems to reside between poorly adapted sojourner groups and the remaining sojourners. The low adaptation CI tended to be evaluated more negatively than the moderate and high adaptation CIs, and the statistical significance of this difference was supported by the final meta-analysis. The meta-analysis found no difference between the moderate and high adaptation CIs, suggesting that representations of locals at these levels are similar in valence.

One possible reason could be that at low levels of adaptation, when host culture awareness is low and behaviors of locals seem incomprehensible, threat is at stake; at intermediate and high levels, when one has learned more about the host culture and it has partially lost its threatening features, it is more challenges about finding one's way around in the

host society and making contacts (van der Zee & van Oudenhoven, 2013). It seems plausible, therefore, that it is at this very first culture shock level that the representations of locals are negative. An alternative explanation could be that the advancing adaptation might approach an optimal representation of locals, rather than mechanistically render it more and more positive. In this case, the differences between moderate and high adaptation level may not be captured by valence. Although determining what such an optimal representation should look like may be difficult or impossible, future research may test this hypothesis by using more sophisticated dependent variables to capture how adaptive sojourner representations are (e.g., flexibility or context sensitivity).

Methodological remarks and limitations

In the above studies, we successfully validated a procedure for using RCT online. The reliability of this procedure was supported by consistent results across two studies (Study 1 and 2), a conceptual replication (Study 2) and a direct replication with the long RCT (Study 3). Still, the long RCT appears to be more sensitive. Even though the overall number of trials per study was comparable, the CIs obtained from 300 trials were neater (see Figure 2) and produced a greater number of theoretically plausible significant effects on individual adjectives (see supplementary materials, Appendix C) than CIs obtained from 50 randomized trials, possibly because increasing the number of participants and reducing the number of trials resulted in more inter-participant noise.

However, neater CIs do not necessarily translate into more valid results. One might argue that in terms of statistical power a design in which the number of participants and the number of trials are more balanced has an advantage over a design with a large number of trials but fewer participants (e.g., Westfall, Kenny & Judd, 2014). CIs coming from fewer participants and more

trials might carry the risk of systematic error stemming from participant idiosyncrasies (i.e., outliers). In our case, the strength of effect sizes found in the CI evaluation phases of both procedures tended to be comparable. Therefore, the online RCT with 50 randomized trials seems to be a useful procedure for investigating populations that are, for various reasons, difficult to study in laboratory settings.

Finally, sojourner samples in our studies were rather well adapted and similar in their basic sociodemographic characteristics. Our results, therefore, may not be representative to groups with actual adaptation difficulties and/or with different sociodemographic features. For theoretical reasons, however, we would expect the same general correspondence between adaptation level and valence of the representations of typical locals. Since valence effects mostly showed at low adaptation levels, samples with a lower average adaptation could even be expected to yield stronger results.

Conclusion

The current set of studies offers evidence that the valence of sojourner perceptions of locals is associated with sojourner degree of adaptation to living among these locals. This association is unlikely to be an artifact coming from social desirability or experimenter effects; first, because our method tapped into implicit associations and only partially relied on sojourner self-reports, and second, because the raters had no indication where the CIs came from and what they represented. Therefore, we believe our findings reveal the social-cognitive component of adaptation, the neglected C of the ABC model of cross-cultural adaptation (Ward et al., 2001). They encourage further theoretical elaboration of the concept and open a new promising avenue in adaptation research.

Moreover, our results point to the inherent intergroup nature of cross-cultural adaptation, a perspective that, if applied in future research, may help grasping the phenomenon of adaptation in its full complexity. This perspective is also crucial from an applied point of view. If we aim at a harmonious coexistence of different cultural groups within diverse societies, the link between adaptation and intergroup relations has to be taken into account. It implies that immigration policies and intervention programs supporting cross-cultural adaptation of immigrants and sojourners are beneficial not only for their target groups, but also for the society as a whole: they contribute to improved relations between these newcomers and the local people, to decreased intergroup tension and to a lowered risk of conflict. These benefits extend to any member of the host society and make investing in cross-cultural adaptation doubly worthwhile.

Chapter 6.

General Discussion

Departing from the assumption that cross-cultural adaptation is inherently an intergroup phenomenon and that understanding its intergroup underpinnings is a matter of high urgency, this thesis is an attempt to bridge the scientific fields of cross-cultural adaptation and intergroup relations. Reaching out for concepts and models from both fields, it provides an analysis of the role of intergroup factors for cross-cultural adaptation as its antecedents, moderators and, ultimately, as its manifestations. This analysis was done at two different levels. First, I investigated the current state of the art in adaptation research to identify relevant intergroup factors as well as the existing blind spots (Chapter 2 and 3). Second, several studies were conducted with the adapting populations, mostly international students (Chapter 4 and 5), but also expatriate academics and migrants (Chapter 5), to capture some of the intergroup factors at work within the adaptation process. Figure 1 summarizes the flow of the current thesis.

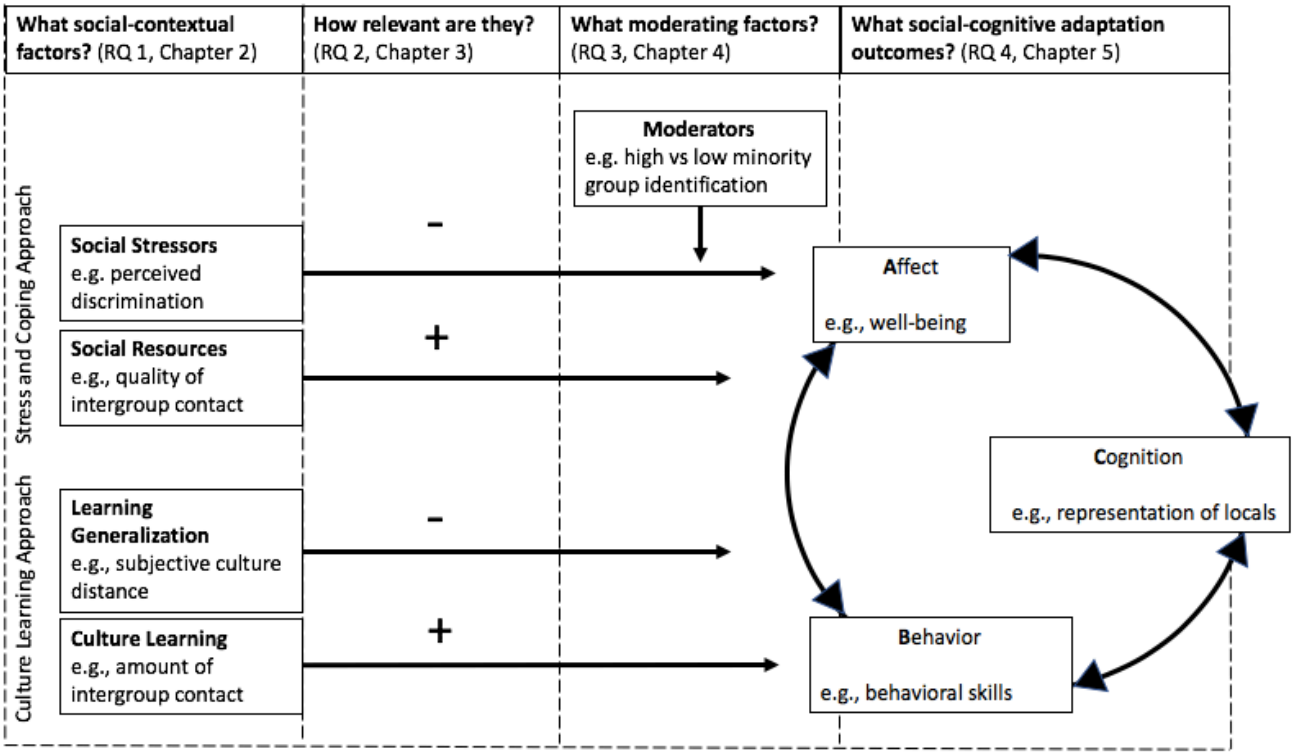

Figure 1. Overview of the chapters and research questions of the present thesis.

Chapter 2 reported a systematic review of literature addressing RQ1. Based on that review, we concluded that the coverage of social-contextual factors as predictors of adaptation is different for different adapting populations. The expatriate literature shows little interest in psychological adaptation and factors related to stress and coping (e.g., acculturative stressors such as perceived discrimination). The literature on first-generation migrants rarely measures socio-cultural adaptation directly (i.e., rarely uses socio-cultural adaptation scales rather than indicators such as school grades) and shows little interest in factors related to culture learning (i.e., structural measures of intergroup contact, cultural distance). The international student literature is the most diverse and the least congruent; the only group of factors it hardly includes are those related to family.

Chapter 3 reported a meta-analytical study addressing RQ2. One conclusion from this study was that among the different factors related to the social context of adaptation, intergroup factors such as quality of intergroup contact (r = .45) and perceived discrimination (r = -.41) show the strongest association with cross-cultural adaptation. Furthermore, the strength of the association between any given factor and adaptation rarely varied between adapting populations, which suggests that the relevance of social-contextual factors is universal.

Chapter 4 reported an online survey study addressing RQ3 and following up on the meta-analytical finding that adaptation has a strong negative association to intergroup tension such as expressed in perceptions of discrimination. In this study, high identification with the group of international students attenuated the negative effects of perceived discrimination on psychological adaptation, but home country identification aggravated the negative effects of symbolic threat on sociocultural adaptation. This suggests that the role of minority group

identification may be ambivalent: positive when the minority group at stake is associated with the host country context, and negative when it is associated with the home country context.

Chapter 5 reported a set of studies addressing RQ4. Using the Reverse Correlation Paradigm (Dotsch, Wigboldus, Langner, & van Knippenberg, 2008), we showed a consistent association between the valence of the cognitive representation of host-nationals held by sojourners and the degree of cross-cultural adaptation. We concluded that adaptation manifests itself in the way newcomers represent local people. Taken together, the studies presented in Chapters 2—5 of the current thesis provided some insights that, I think, call for being addressed. This last chapter discusses the present findings altogether, as well as their implications for adaptation theory and research.

Universal Processes and Group-Specific Research Practice

The first major insight from this thesis is that although processes behind cross-cultural adaptation are assumed to be universal, research has been heavily stratified according to immigrant or sojourner population. On the one hand, the meta-analysis presented in Chapter 3 supports the universal nature of the two processes, stress and coping and culture learning, for cross-cultural adaptation across three adapting populations: expatriates and their families, international students and migrants. On the other hand, the review of literature reported in Chapter 2 shows that these processes are not covered equally for the three adapting populations. In terms of outcomes, psychological adaptation is understudied for expatriates, and socio-cultural adaptation is neglected in studies focusing on first-generation migrants. In terms of antecedents, culture learning factors (cultural distance and host-national interaction) are overlooked for first-generation migrants, whereas social stressors are hardly ever studied among expatriates.

This contradiction is possibly due, at least in part, to some untested, common sense-based assumptions researchers hold about their target populations (e.g., that discrimination is not relevant to expatriate workers; that culture learning does not apply to long-term immigrants) or to the specific orientation of each population-oriented research area (e.g., a pragmatic focus in expatriate research; see Chapter 2 for more details). These different approaches in different population-oriented research areas led to unequal numbers of studies per population including specific correlates of adaptation (e.g., little coverage of perceived discrimination for expatriates and numerous studies for migrants and students). However, when there was enough research on a specific factor, it was rather rare to find differences in effect sizes between the populations (see Chapter 3). If there were any, they tended to have to do with a population-specific operationalization of a factor (e.g., organizational support is, not surprisingly, mostly beneficial for expatriates).

Although there are some exceptions (e.g., interacting with locals, while beneficial for socio-cultural adaptation across the three populations, seems to hurt psychological adaptation of expatriates), the overall pattern of our meta-analytical findings is congruent with the universalist assumptions of the ABC model of culture contact (Ward et al., 2001). Among the factors related to culture learning, contact with host nationals facilitates adaptation whereas cultural distance undermines it. Among the factors related to stress and coping, social resources such as support facilitate adaptation whereas acculturative stressors such as perceived discrimination undermine it.

In Chapter 2, I discussed the importance of addressing the blind spots in the literature on specific populations, such as the lack of studies on psychological adaptation of expatriates or the omission of family-related factors for international students. The meta-analytical findings from

Chapter 3 suggesting universality of adaptation processes add another argument to this discussion. To illustrate this importance, I will focus on one gap in the literature that, I believe, may be the most difficult to address because it calls for developing new theoretical tools and new assessment instruments. This gap is the insufficient coverage of culture learning-related variables in research on first generation migrants. In the meta-analysis (Chapter 3), this gap translated into a considerably lower number of studies with such variables for migrants as compared to the two remaining populations (e.g., 6 studies with subjective culture distance for migrants against 17 for international students and 23 for expatriates and their families). Yet, the effects of culture learning variables on migrant adaptation did not differ in strength from other populations; moderation tests showed that if any difference is found, it is for international students. That is, culture learning factors are as highly relevant for migrants as for other adapting populations, and it seems important to understand why migrant research does not pay much attention to them.

Migrants and Socio-cultural Adaptation

Whereas migrants are probably the most visible adapting population, studies on migrants that measure their socio-cultural adaptation directly are extremely rare. Instead, most migrant research relies on positive indicators such as occupational performance (e.g., school grades; Leung, 2001b) or negative indicators such as antisocial behavior (e.g., the Antisocial Behavior Scale used in the International Comparative Study of Ethnocultural Youth, see Vedder & Virta, 2005; Sam et al., 2008; Sam, Vedder, Ward & Horenczyk, 2006). The advantage of such indicators is that they are suitable for migrants of any generation, including those born and raised within the host culture. From a cross-cultural adaptation perspective, however, one big disadvantage is that it is unknown if these indicators actually have anything to do with adapting to a new culture. Conceptually, socio-cultural adaptation is an outcome of a culture learning

process (Ward et al., 2001; Masgoret & Ward, 2006; Wilson et al., 2013). While culture learning may be relevant to school grades and to externalizing symptoms, it is difficult to imagine that it could be the only, or even the main contributing factor. Indicators such as grades or antisocial behavior may be useful for assessing the overall adaptation to living in a society, but less so for assessing socio-cultural adaptation as one of the dimensions of cross-cultural adaptation.

One reason why migrant research does not assess socio-cultural adaptation directly may have to do with the misfit between the definition and the operational practice of measuring this dimension. Ward and colleagues define socio-cultural adaptation as a capacity to behaviorally fit in the new culture (Ward et al., 2001, p. 42; cf. Ward and Kennedy, 1999, Masgoret & Ward, 2006). Indicators such as school grades (e.g., Leung, 2001b) or externalizing symptoms (e.g., Vedder & Virta, 2005; Sam et al., 2008; Sam, Vedder, Ward & Horenczyk, 2006) seem to be tangible proofs for adaptation, but they are not aligned with this definition[14]. In order to fit in, a child does not need to have especially good grades at school; most of its host national peers are not exemplary students neither. What is more, responding to stress with some mild externalizing behaviors such as drinking alcohol may actually help fitting in into a culture where such behaviors are normative, whereas it will certainly not in other cultures. Therefore, the operational understanding of adaptation as success and poor adaptation as pathology may be misleading.

A second probable reason for not assessing socio-cultural adaptation directly is the lack of adequate assessment instruments. The most commonly used scales of socio-cultural adaptation (SCAS; Ward & Kennedy, 1999; BSAS; Demes & Geeraert, 2014) were developed for short-

[14] Such indicators are used in two manners. Some studies (e.g., those cited above) explicitly use them to assess socio-cultural adaptation. Other studies on immigrants do not refer explicitly to socio-cultural adaptation; they simply list occupational (e.g., school, work) success and psychological wellbeing as their outcome measures, sometimes referring more generally to adaptation (e.g., Birman, Trickett & Vinokurov, 2002). Finally, some authors view both adaptation and occupational success as components of a broader notion of intercultural effectiveness (e.g., Kealey & Protheroe, 1996; Kealey & Ruben, 1983). While one can only talk about misfit between the definition and operationalization in the former case, the overall criticism that good/poor adaptation should not be seen as synonymous of success/pathology applies to all of these approaches.

terms sojourners (i.e., international students) and tap into aspects of the host culture one learns to deal with relatively quickly: “Finding food you enjoy”, “Going shopping”, “Finding your way around”. These items are not meant for measuring socio-cultural adaptation of people whose stay in the host country dates back several years or decades. Yet, this does not necessarily mean that for such people the culture learning process is long over.

In fact, culture learning may occur at different levels, from the most basic to highly advanced. It may be compared to learning a new language. A language learner first needs to learn the basics vocabulary to be able to pass to more complex sentences and gradually acquire the fluency of a native speaker. Similarly, a newcomer in a host culture first needs to learn simple things (e.g., where to buy food, how to take a bus to get home) to be able to pass to the next level (e.g., how to make friends, how to behave in a job interview) and gradually acquire social skills of a host national. Most probably, not everyone will get there. Right now, it is impossible to draw definite conclusions on culture learning over the course of a long-term residence in a new culture because its assessment is limited to a rather basic and general level. The conceptualization and measurement of socio-cultural adaptation need further refinement in order to account for more advanced culture learning processes.

The inadequacy of conceptualizations and measures of culture learning for long-term migrants illustrates that simply transferring the existing theoretical and methodological tools from one adapting population to another is not enough to achieve full understanding of cross-cultural adaptation. Explicit critical reflection on the underlying assumptions about each adapting population, as well as on the guiding objectives of basic and applied research, accompanied by refinement of methods, is required.

The Relevance of Intergroup Factors for Adaptation

The second major insight from the work presented in this thesis is that intergroup factors, that is, factors that, in interactions between members of different social groups, affect these members' feeling, thinking and behavior due to their group identification, have high relevance for cross-cultural adaptation, as was shown in Chapters 3, 4 and 5. Regardless of the adapting population (international students, expatriates and their families, migrants), intergroup factors such as perceived discrimination (Chapter 3, 4), host national contact (Chapter 3), intergroup threat (Chapter 4) and the valence of sojourner representations of the host national outgroup (Chapter 5) are consistently associated with adaptation outcomes.

Furthermore, out of all the predictors tested meta-analytically, intergroup factors seem to yield the strongest correlations with adaptation. In our meta-analysis (Chapter 3), it is the quality of intergroup contact *(r* = .45) and perceived discrimination (*r* = -.41) that are found to correlate with adaptation the strongest. This finding is consistent with a previous meta-analysis by Wilson, Ward and Fischer (2013). Although their study included a variety of different adaptation antecedents than our study, such as personality, language competence and length of stay in the new culture, perceived discrimination still stood out as the strongest correlate (*r* = -.50). This is robust evidence for the relevance of intergroup factors.

Yet, the mechanisms and processes through which such intergroup factors impact adaptation remain less clear. We identified one such mechanism in Chapter 4, where we showed that the detrimental influence of perceived discrimination is weaker when people identify with a minority group present in the local context of the host country (i.e., the group of international students), whereas the negative influence of symbolic threat is reinforced by identification with the home country. We concluded that strong ties (identification) with the home country are

probably associated with poorer adaptation because a strong sense of connection with the home culture translates into a greater difficulty in dealing with the potentially threatening norms and values of the host culture (symbolic threat). Still, identification with other minority groups may serve as a coping resource as long as they are associated with the local context rather than the home country context (e.g., the international student group).

Some other effects reported in this thesis are difficult to fully understand in the light of the ABC model of culture contact (Ward et al., 2001). For instance, the effect sizes for quality of intergroup contact and for perceived discrimination cited above were found in relation to the socio-cultural dimension of adaptation, suggesting that these variables are empirically relevant for the culture learning process, while the ABC model links them rather to stress and coping, that is, to the psychological dimension (cf. Wilson et al., 2013)[15].

Intergroup factors and culture learning

When thinking about cross-cultural adaptation as an intergroup phenomenon, the strong association between quality of intergroup contact and socio-cultural adaptation may make some sense. In the intergroup literature, learning about the outgroup was shown to be one of the processes through which contact exerts its beneficial effects (Pettigrew & Tropp, 2008). This is consistent with the culture learning approach to adaptation (Masgoret & Ward, 2006), that is, positive contact may be a good opportunity for observational learning of the new culture directly from host nationals. However, the main process through which contact exerts a positive influence is anxiety reduction, which again points to stress and coping and to psychological adaptation,

[15] While the ABC model is probably the most prominent conceptualization of adaptation, it must be acknowledged that other theoretical approaches exist that may explain those effects more easily. For instance, Kealey and Ruben's (1983) conceptualization of intercultural effectiveness or Black, Mendenhall and Oddou's (1991) model of expatriate adjustment explicitly distinguish adjustment to intercultural interactions that could be more naturally linked to perceived discrimination or contact quality than the notion of cultural-learning. Yet, since these interaction-related facet arguably has a lot to do with intergroup perceptions, part of the below discussion in which we link the effects of intergroup factors to social cognition could also be applicable to these conceptualizations.

rather than socio-cultural adaptation. The anxiety reduction process is also in line with our own rationale developed in Chapter 3, where we argued that good quality contact should act as a coping resource in the first place, and only in the second place as a learning opportunity. The pattern of our results shows the exact opposite: the correlation between contact quality and psychological adaptation is .14, considerably weaker than for socio-cultural adaptation (for which r = .45).

The case of perceived discrimination and its consistent strong association with culture learning is even more counterintuitive. In theory, perceived discrimination is an acculturative stressor (Berry et al., 1987; Berry & Kim, 1988; Berry, 2006a,c; see also Wilson et al., 2013). As such, it should be relevant for stress and coping, that is, psychological adaptation. It is indeed, but the correlation is -.25, again considerably weaker than for socio-cultural adaptation (r = -.41). One may argue that it is natural that the same factors predict two interrelated dimensions of the same construct even though the theory links them to only one dimension. However, if the interrelatedness of psychological and socio-cultural adaptation was indeed the reason why contact quality and perceived discrimination are associated with both, the effects should still be stronger for psychological adaptation. The adaptation model in its current form does not explain why we observe this much stronger effects for socio-cultural adaptation. A better reliability of socio-cultural adaptation measures does not seem to explain it either because research tends to assess psychological adaptation with validated, highly reliable instruments such as the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen & Griffin, 1985) or the Center for Epidemiological Studies-Depression measure (CES-D; Radloff, 1977).

Social-Cognitive Aspects of Culture Learning

One likely explanation for stronger effects of intergroup factors on socio-cultural adaptation comes from a closer look at the assessment instruments. Measures of socio-cultural adaptation typically include items about intergroup phenomena. For example, the Socio-Cultural Adaptation Scale (SCAS; Ward & Kennedy, 1999) asks participants to rate the difficulty they experience in the following areas, among others:

36. Understanding the locals' world view

37. Taking a local perspective on the culture

38. Understanding the local value system

39. Seeing things from the locals' point of view

40. Understanding cultural differences

41. Being able to see two sides of an intercultural issue

(Ward & Kennedy, 1999, p. 663)

The Brief Socio-cultural Adaptation Scale (BSAS; Demes & Geeraert, 2014) asks about the main things participants feel they need to adapt to when staying in the new country, and these include:

Social norms (how to behave public, style of clothes, what people think is funny)

Values and beliefs (what people think about religion and politics, what people think is right or wrong)

(Demes & Geeraert, 2014, p. 105)

These aspects are, of course, relevant to culture learning because behaving accordingly to the local social norms is something a newcomer needs to learn (cf. Masgoret & Ward, 2006). At the same time, they are also tightly related to intergroup perceptions and attitudes. For instance, one’s perceived difficulty with local norms, values and beliefs may very well reflect intergroup

bias and negative evaluations of the host-national outgroup. Perceived difficulties with perspective taking (items 36, 37, 39, and 41 of SCAS) may also indicate intergroup bias, as the inverse association between both variables has been extensively documented (e.g., Galinsky & Moskowitz, 2000).

The presence of items related to intergroup bias may explain the strong association between scores on these scales and factors such as perceived discrimination or good quality intergroup contact reported in Chapter 3. More specifically, perceiving discrimination from the host national majority has been shown to reinforce intergroup bias in immigrants (see Jasinskaja-Lahti et al., 2009), and a similar process could result in a low score on SCAS or BSAS. Intergroup contact, in turn, is known to exert part of its positive impact on intergroup outcomes via increased perspective taking (Pettigrew & Tropp, 2008), which could translate into a higher score on SCAS and BSAS. The reverse paths are also possible: stronger intergroup bias could lead to perceiving more discrimination and evaluating intercultural contact situations as less positive. In sum, it may be that intergroup factors previously shown to correlate with intergroup bias have stronger correlations with socio-cultural adaptation measures simply because these measures include items that translate not only culture learning, but also intergroup bias itself. I will address the cognitive aspects of such intergroup bias in more detail in the following because of their particular relevance for cultural learning.

Whereas the ABC model of culture contact (Ward et al., 2001) defines socio-cultural adaptation as the behavioral dimension of adaptation, both SCAS and BSAS seem to measure rather broadly defined culture learning. The scales do not distinguish between behavioral skills that match the definition of socio-cultural adaptation as behavior-related (e.g., “Finding food you enjoy”) and cognitive aspects that do not match this definition (e.g., “Understanding the local

value system"). Consequently, socio-cultural adaptation measured by these instruments is a mix of behavioral and cognitive aspects. On the one hand, such a construct reflects well the overall functioning of a newcomer within the new culture. On the other hand, combining behavior and cognition in one scale makes it more difficult to gain insight into the process behind this overall functioning. Making a clear distinction between behavioral and cognitive aspects of adaptation, both in theory and in research practice (e.g., distinct assessment instruments), appears to be necessary to truly understand the role of intergroup antecedents of adaptation such as those identified by our meta-analysis.

Social-Cognitive Manifestations of Adaptation

The third contribution of this thesis consists of showing that cross-cultural adaptation is manifested in sojourner representations of the host-national outgroup. In a series of studies with the reverse correlation task (RCT; Dotsch, Wigboldus, Langner & Van Knippenberg, 2008; Chapter 5), the association between the valence of visual representations of host nationals held by sojourners and their degree of cross-cultural adaptation was consistently replicated. For methodological reasons, these studies used an aggregated adaptation score and did not distinguish between the psychological and the socio-cultural dimension; still, the association was clear. Poor adaptation was associated with a more negative representation of the host national outgroup than moderate and good adaptation.

The discussion of the ABC model (Ward et al., 2001) may suggest that what we actually captured in these studies is a manifestation of social-cognitive adaptation. Ward and colleagues (2001) describe the C in their model as follows:

> *The third element of the model is the cognitive component. (...). Perhaps the broadest is the notion that culture consists of shared meanings. People interpret material,*

> *interpersonal, institutional, existential and spiritual events as cultural manifestations, and these vary across cultures. When cultures come into contact, such established 'verities' lose their apparent inevitability. For instance, when persons from a male dominated culture find themselves in a society that practices gender equality, the conflict between these two irreconcilable positions spills over into the cognitive workings of both visitors and hosts. It affects* how the participants see each other, how they regard themselves, *and whether either party will be influenced to change their views as a consequence of the contact.* (Ward et al., 2001, pp. 268—269)

This suggests that cultural differences affect perceptions and evaluations of the overall social environment, including the host national outgroup, and these perceptions and evaluation of the host national outgroup are one of the ways how the cognitive aspect of adaptation manifests itself. That is consistent with our finding that the level of cross-cultural adaptation is reflected in the valence of representation of the host national outgroup (Chapter 5).

Other passages suggest that the cognitive aspect actually constitutes a third dimension of adaptation, for instance:

> *The cognitive perspective complements the behavioral analysis provided by the culture learning approach and the affective emphasis in the stress and coping framework. Together, these three perspectives provide the ABC basis for the comprehensive analysis of cross-cultural transition and adaptation (...).* (Ward et al., 2001, p. 121)

Here, the cognitive aspect of adaptation is placed at the same level as the behavioral and the affective aspect. Yet, while it is very clear that the behavioral and the affective aspect

correspond with socio-cultural and psychological adaptation, the ABC model specifies no dimension of adaptation that would correspond with the cognitive aspect. Because in the ABC model cognition is conceptualized as stemming from identity processes such as shifts in people's cultural identification, it is conceptually very close to acculturation orientations. Consequently, calling it a third dimension of adaptation would be problematic; the acculturation model assumes that shifts in cultural identification precede adaptation outcomes in a causal chain (Berry, 1997, 2005; Sam & Berry, 2010).[16] However, if we extend the concept of cognition to other phenomena such as representations and beliefs concerning the host-national outgroup[17], it is no longer redundant with acculturation orientations. This, in turn, opens the possibility to think about intergroup cognitions in terms of an adaptation outcome: social-cognitive adaptation.

Implications for Adaptation Theory

In the previous sections of this chapter, I outlined three main insights from the literature review and the empirical studies presented earlier in this thesis and I discussed their major implications for adaptation theory and research. First, the processes behind adaptation seem to be universal, but they have been approached by research in a population-specific manner, illustrated for example by the fact that migrant research does not show much interest in culture learning and its outcomes. A partial solution to this issue would be to reconceptualize culture learning as an incremental process that applies to all adapting populations, including long-term immigrants and

[16] Note that shifts in cultural identification may also be understood in different manners. For instance, van Oudenhoven and Benet-Martínez (2015) suggests that in Berry's acculturation model, the concept of cultural identification is external to the self, whereas works of biculturalism and bicultural identity integration refer to identification as internal and characterizing different aspects of the self.

[17] In this chapter, I only address outgroup representations because this is the aspect of social cognition that research presented in Chapter 5 pointed to. What other aspects may be relevant to social-cognitive adaptation (e.g., tacit and explicit knowledge of the host culture, relational rules, role- and task representations) remains an open question.

maybe even second and further generations who may still show advancements in some tacit culture-specific knowledge and skills.

Second, intergroup factors are highly relevant to adaptation, especially to the socio-cultural dimension, although it is not entirely clear yet why. Intergroup research suggests that one of the most important ways how adaptation and intergroup phenomena are linked is through cognition. For instance, perceived discrimination and intergroup contact have respectively been associated with an increase and a reduction of intergroup bias, and that may be captured by some items of socio-cultural adaptation scales. Therefore, one step toward clarifying the processes that link intergroup factors to adaptation would be to clearly distinguish between the behavioral and the cognitive aspect of adaptation, both in theory and in research practice (e.g., development of distinct instruments for measuring behavior and cognitions). The third insight is related to the second: adaptation is manifested in the way newcomers represent the host national outgroup, which may point to the social-cognitive dimension of adaptation. This finding further supports the relevance of investigating the cognitive aspect.

In the remainder of this chapter, I reflect upon the possible ways of integrating these implications into the ABC model of culture contact (Ward et al., 2001). As to adaptation outcomes, the model so far acknowledges the role of social cognition in cross-cultural adaptation. However, while it specifies that affect corresponds with psychological adaptation and behavior with socio-cultural adaptation, the cognitive outcome is not specified. As to the processes behind adaptation, affect is related to stress and coping, and behavior is related to culture learning; again, for social cognition the process is less clear. Intergroup perceptions are included in the model as outcomes, but the discussion of cognition focuses on changes in social (cultural) identity. This is one aspect of the model that, I believe, calls for revisiting in order to

fully understand how intergroup factors affect adaptation (Chapter 3, 4), and how adaptation is linked to outgroup perceptions (Chapter 5). Before doing so, however, a step back is needed to reconsider what cross-cultural adaptation actually is.[18]

Redefining Cross-Cultural Adaptation

Ward and colleagues (2001) define adaptation in terms of two dimensions: psychological ("feelings of well-being or satisfaction during cross-cultural transitions", p. 42) and socio-cultural ("the ability to 'fit in' or execute effective interactions in a new cultural milieu", p. 42). Several other authors attempted to define the phenomenon of adaptation as a whole (e.g., Hammer, Bennett & Wiseman, 2003; Anderson, 1994; Ruben & Kealey, 1979). Perhaps the broadest definition was given by Young Yun Kim, according to whom cross-cultural adaptation is "the entirety of the dynamic process by which individuals who, through direct and indirect contact and communication with a new, changing, or changed environment, strive to establish (or reestablish) and maintain a relatively stable, reciprocal, and functional relationship with the environment" (Kim, 2001, p. 31). Kim's definition is interesting in that, by highlighting a stable and functional relationship to the environment, it echoes the primary understanding of the notion of adaptation in evolutionary biology. I believe that returning to this primary understanding may help rethink adaptation.

Although even in biology the definition of adaptation is not uncontroversial (see Brock, 2000, for a review of existing definitions), one consensual aspect is that adaptation refers to a *state of form* (i.e., phenotype, which includes behavior) that is more or less functional in a specific environment; it does not refer to the process of acquiring this state of form (cf. Brock,

[18] In the remainder of this chapter, I will use the term behavioral adaptation to refer to strictly behavioral aspects of adaptation, and the term socio-cultural adaptation to refer to the mixed construct measured by SCAS and BSAS. By analogy, I will also refer to affective adaptation rather than psychological adaptation, assuming that social cognition is a psychological phenomenon as well.

2000; Lints, 2010). There are two processes through which adaptations are acquired: selection and plasticity (or flexibility; West-Eberhard, 1989, 2003, 2005; see also Wright et al., 2010). Selection is an evolutionary mechanism that leads to modifications to the genome and occurs over generations (West-Eberhard, 1989, 2003, 2005). This corresponds with the concept of adaptation in evolutionary psychology (cf. Symons, 1992), but not in cross-cultural psychology. Plasticity, in turn, refers to "the ability of a single genotype to produce more than one alternative form of morphology, physiological state, and/or behavior in response to environmental conditions" (West-Eberhard, 1989, p. 249; see also West-Eberhard, 2003, 2005; Wright et al., 2010) which occurs over the lifespan of an individual organism. This definition includes plasticity of behavior that seem analogical to the processes through which cross-cultural adaptation is acquired.

One difference between both fields is that in the cross-cultural literature, the tendency is to use the term 'adaptation' for both the process and the outcome; the former is exemplified by Kim's (2001) definition, and the latter by the ABC model (Ward et al., 2001). By analogy to biology, I will refer to adaptation as a state (an outcome) in the remainder of this chapter. A second difference is that cross-cultural adaptation is not always defined in terms of functionality. For instance, the definition of psychological adaptation as "feelings of well-being and satisfaction" (Ward et al., 2001, p. 41) implies that the higher the level of well-being, the better the adaptation. One problem with this definition is that the degree of subjective well-being is to some extent due to individual differences (Diener et al., 2006). A person with a tendency toward negativity may report relatively low well-being, but still higher than it used to be in the home culture; the question is whether that makes them cross-culturally maladapted.

One answer is found in the adaptation theory of well-being (Brickman & Campbell, 1971; Diener et al., 2006). This theory focuses on affective adaptation after emotionally significant events such as an intercultural transition. It posits that after such events, people's subjective well-being returns to a baseline, that is, a set point specific for a specific person, at which this person functions well. Some life events may slightly increase or decrease the set point, but for most people it is relatively stable and slightly above neutral (Diener et al., 2006). Therefore, I propose to redefine the affective dimension of cross-cultural adaptation as the ability to maintain, return to, or exceed one's personal set point of subjective well-being from before the transition. In the case of transitions due to or accompanied by other emotionally significant events (e.g., refugees fleeing from war or persecution), it is the set point from before these events that is relevant.

Adaptation and Fitness

Regardless of whether it is achieved via selection or plasticity, biological adaptation serves the increase of fitness (cf. Wright et al., 2010; West-Eberhard, 1989, 2003, 2005). Generally, fitness refers to "the ability of organisms – or, more rarely, populations or species – to survive and reproduce in the environment in which they find themselves" (Orr, 2009, p. 531). There is a distinction between absolute fitness and relative (differential) fitness (Orr, 2009; Brock, 2000). Adaptation in terms of absolute fitness is manifested in mechanisms that show propensity for survival; such mechanisms are functional enough to maintain the organism in a relatively stable state of homeostasis, even though they may be suboptimal. Adaptation in terms of relative fitness is "a state of form that is more efficient than some other, related state" (Brock, 2000, p. 3); it is manifested in mechanisms that allow for optimal functioning.

By analogy, cross-cultural adaptation can also be described in terms of absolute fitness and differential fitness[19]. Absolute fitness is the degree to which a sojourner or migrant is able to fulfill his/her needs and the cooperative requirements of living in the host culture through psychological (e.g., affective coping; cognitive processing) and behavioral processes (e.g., interactions with host nationals and others). Relative fitness is the degree to which these psychological and behavioral processes are relatively more or less effective, for example as compared to the functioning of other members of the host society, including other more or less well adapted sojourners or migrants, or the functioning of the same sojourner or migrant in the culture of origin.

It is likely that in the beginning of an intercultural transition, the focus of most newcomers is to achieve a sufficient degree of absolute fitness. Assessment instruments such as SCAS (Ward & Kennedy, 1999) and BSAS (Demes & Geeraert, 2014) with items such as "finding your way around" or "going shopping" seem to tap mostly into absolute fitness, as it seems to be the most important for the population they were developed for (i.e., short-term sojourners). Both Ward and colleagues' (2001; cf. Ward & Kennedy, 1999) definition of socio-cultural adaptation and Kim's (2001) definition of cross-cultural adaptation also seem to refer to absolute fitness as they assume that good adaptation consists of "fitting in", or "a relatively stable, reciprocal and functional relationship with the environment".

Relative fitness is likely to be low in the beginning of a transition and then grow together with absolute fitness (cf. Orr, 2009). The degree of relative fitness becomes a more relevant criterion once a sufficient absolute fitness is ensured, which is why relative fitness is probably

[19] Admittedly, while transferring a concept from one scientific field (e.g., biology) to another (e.g., psychology), one must keep in mind that its definitions in both fields may be analogical at most. The concept of fitness in relation to cross-cultural adaptation should not be interpreted as in Darwinian biology (i.e., surviving on the one hand, capacity to spread one's genes on the other hand), but as an analogical phenomenon expressed in one's overall capacity to function within the requirements of the host culture.

more applicable to long-term sojourners and migrants. For some of them, culture learning and coping processes may continue at a higher level as they strive to achieve optimal functioning within the host culture. Others may stabilize at suboptimal levels of adaptation that are characterized by a minimal sufficient degree of absolute fitness.

Again, an analogy with biology may help speculate on possible origins for these differences. Research on neophobia (i.e., avoidance of novelty) and neophilia (i.e., exploration of novelty; cf. Greenberg, 2003) in animals suggests that while the tendency toward exploring novelty and engage in innovative behavior increases relative fitness (Wright et al., 2010), it depends on a variety of factors. For example, it is relevant whether innovation is necessary for survival (exploration of and habituation to novelty occurs quicker if known options are not available) and whether it is risky (the risk of innovation may outweigh gains from increasing relative fitness; Greenberg, 2003). If cross-cultural adaptation is driven by similar processes, then immigrants and sojourners may get trapped in minimal absolute fitness situations, that is, suboptimal but relatively stable functioning in the host society, because it does not carry much risk. Paradoxically, this also suggests that people moving to cultures that are very different from their own may take their absolute and relative fitness further because more innovation and learning will be required from their side before achieving a stable, reciprocal and functioning relation to their environment.

The existing instruments to assess socio-cultural adaptation do not seem to account for relative fitness (see Chapter 4 of this thesis for one exception), which seems problematic because more advanced levels of culture learning cannot be captured. In contrast to that, the research practice of measuring adaptation in terms of success (e.g., Leung, 2001b; Birman et al., 2002) seems to refer to relative fitness and ignore absolute fitness. This is also problematic, and for

various reasons. First, such measures are limited to domains of performance that are common to both locals and newcomers, and do not cover aspects of culture learning that do not apply to locals. Second, as discussed above, such measures may reflect more aspects than only cross-cultural adaptation. Third, such measures only compare respondents to highly functioning members of the host society. Although functioning at a such a high level certainly indicates high levels of adaptation, one could argue that even relative fitness equal or better than an average host-national is enough to consider a person cross-culturally adapted; this latter possibility is not captured by such measures.

In sum, I propose that: (a) adaptation should be defined in functional terms, that is, better adaptation means a closer-to-optimal functioning within the host culture, and (b) adaptation manifests itself as absolute fitness and as relative fitness, and both aspects should be taken into account.

Social-Cognitive Adaptation

If adaptation is about functionality, then the notion of social-cognitive adaptation implies that cognitions such as beliefs about and representations of the host-national outgroup may be more or less functional. From an intergroup perspective, beliefs about and representations of host nationals constitute a stereotype of an outgroup (cf. Yzerbyt & Demoulin, 2010; Yzerbyt, Rocher & Schardon, 1997), and there are several hypothetical functions of these.

According to the classic cognitive miser approach, stereotypes are thought to serve cognitive economy: they help perceivers deal with the overwhelming complexity of information coming from the social world (Snyder & Miene, 1994). This function includes two different aspects: (a) stereotypes are aids to explanation, that is, they help the perceiver make sense of a

situation, and (b) stereotypes are energy-saving devices, that is, they reduce effort on the part of the perceiver (McGarty, Yzerbyt & Spears, 2002; pp. 2—5). Both views often come with the assumption that stereotypes are 'shortcuts' and erroneous overgeneralizations. However, as McGarty and colleagues (2002) note, this would act against these very functions of stereotypes: stereotypes would not be useful to explain the world or save cognitive energy if they only induced into error. In order to be useful, stereotypes should not be completely erroneous.

Adequacy-Related Stereotype Functions

Recent approaches put forward a more complex view of stereotype functions. According to Yzerbyt, Rocher and Schadron (1997), stereotypes are well-organized, theoretical knowledge structures. They are construed on a rich set of pieces of data that they link together; they carry information about attributes of social categories as well as the explanation on how those attributes are interconnected, including causal relations; they provide subjective meaning of the social world and serve to explain (or justify) social situations. For cross-cultural adaptation, this model of stereotypes as explanations (Yzerbyt et al., 1997; Yzerbyt & Demoulin, 2010; McGarty, Yzerbyt & Spears, 2002) implies that a stereotype of the host national outgroup held by a newcomer covers attributes of host nationals, social relations within the host national group and explanations of these relations, that is, a newcomer's subjective interpretation (explanation) of this culture's cultural syndromes. The first function of stereotypes I will consider in relation to cross-cultural adaptation is, therefore, their explanatory function.

Furthermore, stereotypes are relevant for predicting behaviors of outgroup members. The stereotype content model (Fiske et al., 2002) explains the theoretical warmth and competence dimensions of stereotypes by stating that people need to be able to (1) predict outgroup members' positive or negative intentions toward themselves or their ingroup (warmth), and (2) assess how

effectively the outgroup members will pursue those intentions (competence). The intergroup threat literature, in turn, assumes that stereotypes include expectations as to intergroup interactions, and negative stereotypes represent negative expectations concerning both the behavior of outgroup members and the outcomes of interactions with these outgroup members (Stephan & Stephan, 1996, 2000; Riek, Mania & Gaertner, 2006). Hence, the second function of stereotypes I will consider is their predictive function.

Both the explanatory and the predictive value of a stereotype depends on its adequacy. Translating that to cross-cultural adaptation, I propose that the more adequate the explanation and prediction based on the stereotype of the host-national outgroup, the better the social-cognitive adaptation. By 'adequate' I mean such explanation and prediction that increases fitness, that is, brings the newcomer closer to optimal functioning in interactions and relationships with members of the host culture.[20]

As a final note, adequate stereotypes are not necessarily entirely accurate stereotypes. In some contexts, slightly more positive or slightly more negative stereotypes may even be more adaptive than accurate ones (cf. Taylor & Brown, 1988; Fiske et al., 2002). Moreover, adequate stereotypes are not necessarily positive stereotypes. When intergroup relations are hostile and abusive, negative stereotypes may be seen as adequate and adaptive, even if the anticipation of negative interactions with host-nationals should motivate the newcomer to avoid any contact with this group. Yet, I would expect that adequate stereotypes are rather complex (see the next section), and under most conditions this complexity makes them unlikely to be extremely negative or extremely positive.

[20] Such a definition allows for distinguishing between functional (adequate) stereotypes and dysfunctional stereotypes that, despite their inadequacy, may still lead to accurate predictions. For example, an inaccurate negative stereotype may accurately predict negative interactions with host-nationals via a self-fulfilling prophecy mechanism (Snyder, Tanke & Berscheid, 1977; Chen & Bargh, 1997; Madon, Willard, Guyll & Scherr, 2011); yet, because this stereotype prevents the newcomer from having functional interactions with hosts, it cannot be considered adequate according to my definition.

Processes Behind Social-Cognitive Adaptation

Research on stereotyping has shown that it is possible to list stereotypical attributes of any social group, including groups that do not exist (e.g., Hoffman & Hurst, 1990). Therefore, when first entering in contact with the host culture, newcomers are likely to already hold a certain a priori stereotype of the host national outgroup. This a priori stereotype is likely to be oversimplified and of limited functional (i.e., explanatory and predictive) value. As a result of sustained intercultural contact, the stereotype undergoes revisions and refinements in a way to better serve its explanatory and predictive function.

One process through which contact with host nationals may contribute to stereotype revision is observational learning. The social learning approach to stereotype formation assumes that stereotypes reflect perceivers' observations of what people do in their daily life, with a greatest weight given to behaviors perceived as typical of the target outgroup (Eagly & Steffen, 1984; Koenig & Eagly, 2014). Therefore, newcomers may integrate repeating behavioral patterns observed in host-nationals into their stereotype of this outgroup. Social learning is part of culture learning, we may therefore assume that culture learning informs social-cognitive adaptation by contributing to the refinement of the host-national stereotype.

Another related process is individual-to-group generalization: information about one group member may be generalized to the social group this member is associated with. This process is relevant both to stereotype formation (Sherman, 1996) and stereotype revision (Paolini, Crisp & McIntyre, 2009; McIntyre, Paolini & Hewstone, 2016). Meta-analytical evidence shows that people revise their beliefs about entire social groups based on information about specific outgroup members, although not necessarily for the better (McIntyre, Paolini & Hewstone, 2016). Translated to a cross-cultural adaptation context, this implies that contact with

and/or receiving information about one host-national person may trigger stereotype revision and refinement; yet, stereotype revision does not mean that the resulting stereotype is necessarily more positive.

Stereotype revision mostly occurs when people are exposed to information about the host-national outgroup that disconfirms the stereotype (cf. McIntyre, Paolini & Hewstone, 2016). There are several hypothetical processes through which stereotype disconfirming information may be integrated, out of which the best documented are probably bookkeeping (Rothbart, 1981) and subtyping (Brewer et al., 1981). Bookkeeping assumes that stereotype revision is data-driven, that is, the perceiver essentially tallies up confirming and disconfirming information. If the stereotype is extreme in the beginning, then each bit of disconfirming information will have some attenuating impact and the stereotype will gradually change to become less extreme. Subtyping (Brewer et al., 1981; Taylor, 1981) assumes that strongly disconfirming information is integrated by creating new subtypes of the target social category; such subtypes are mentally separated from the main category and the stereotype of the main category remains unchanged. However, slightly to moderately disconfirming information may influence the stereotype of the main category. Both bookkeeping and subtyping imply that as new information is being integrated, the stereotype gains complexity, which in turn may increase its adequacy (but see the next section on threats to adequacy).

At least in the beginning of an intercultural transition, a newcomer interacting with host nationals is likely to encounter large amounts of disconfirming information, and that favors the revision of the stereotype of the host national outgroup toward a more adequate stereotype. One important implication of bookkeeping is that disconfirming information should turn the stereotype of host nationals more complex and less extreme. However, as Bennett (2004) notes

for intercultural competency acquisition, information coming from contact may be ignored and change as a function of contact is not inevitable (cf. Pettigrew & Tropp, 2000).

Threats to Adequacy

Stereotype revision as part of cross-cultural adaptation and the increasing complexity of the stereotype does not necessarily mean linear improvement of adequacy; on the contrary, linear improvement is less likely than trial and error. There are several threats to adequacy that may be at work in intercultural transitions. Some of them have to do with the self-confirming nature of the stereotype (e.g., self-fulfilling prophecy; Snyder, Tanke & Berscheid, 1977; Chen & Bargh, 1997; Madon, Willard, Guyll & Scherr, 2011), and some are related to adaptation itself. In the latter category, two factors seem relevant: correspondence bias and intergroup anxiety.

Correspondence bias is a tendency to infer dispositional causes to people's behaviors (Gilbert & Malone, 1995; Gawronski, 2004). Dispositional inferences may be generalized to the social group the target is associated with and contribute to the stereotype of this group (Mackie et al., 1996). Research shows that correspondence bias is stronger when the perceiver is unaware of situational constraints of the target's behaviors (Gilbert & Malone, 1995; Gawronski, 2004), such as constraints imposed by an unfamiliar culture. Such unawareness of cultural constraints (e.g., norms, values) is typical to early stages of culture learning and to poor socio-cultural adaptation, as well as poor social-cognitive adaptation (inadequate stereotype). That is, poorly adapted individuals are more prone to unwarranted dispositional inferences (e.g., the host nationals are aggressive) when the real cause of host-national behavior is a cultural norm (e.g., the host culture is a low context culture where the negative feedback is given directly; cf. Hall, 1989).

Another potential threat to adequacy comes from intergroup anxiety. At low levels of affective adaptation, the stress and coping process is characterized by high occurrence of threat

appraisals in situations of intercultural contact (cf. van der Zee & van Oudenhoven, 2013). Such threat appraisals may be, in part, products of negative stereotypes carrying negative expectations as to intercultural contact (Stephan & Stephan, 1996, 2000; Riek et al., 2006). Threat appraisals lead to stress and anxiety during the interaction with locals. Moreover, intergroup anxiety has a behavior-related component, that is, awkwardness and uncertainty how to behave toward locals (Riek et al., 2006). From the point of view of stereotype revision, the crucial feature of intergroup anxiety is that it decreases the availability of processing resources, which makes people rely to a greater extent on the pre-existing stereotype and focus on confirming rather than disconfirming information (Sherman et al.,1998; Wilder, 1993; Amodio, 2009). This increases stereotype self-confirmation and works against stereotype revision.

Finally, stereotypes also fulfill functions that seem independent of their adequacy. For instance, stereotypes may be functional in the sense of social identification, that is, highlight the differences between the ingroup and the outgroup, increase the sense of belonging to the ingroup and protect self-esteem (Snyder & Miene, 1994). These functions may work against stereotype adequacy and revision, and some empirical evidence suggests their negative impact on the overall adaptation; for instance, in intercultural contexts strong involvement with the co-national ingroup does not facilitate adaptation, but strong involvement with the host-national outgroup does (see Chapter 3 of this thesis). Moreover, these functions may even increase the overall adaptation despite leading to inadequate stereotypes; for example, identification with fellow internationals facilitates adaptation (see Chapter 4), even though it is likely to involve sharing an oversimplified stereotype of the host national group. It is an empirical question which functions are more influential, the adequacy-related function of explanation and prediction or the adequacy-unrelated function of identification. The research reported in Chapter 5 of this thesis,

showing a negative relationship between adaptation and negative stereotypes, points to functions of explanation and prediction. This supports my point that stereotype adequacy is relevant for the social-cognitive dimension of adaptation.

Interconnections Between Affective, Behavioral and Cognitive Adaptation

The above-mentioned threats to stereotype adequacy demonstrate an interconnection between dimensions of adaptation. Poor culture learning outcomes (through correspondence bias) and poor affective outcomes (reflected in threat appraisals leading to intergroup anxiety) lead to a biased stereotype. The biased stereotype, in turn, may impede culture learning by providing inadequate explanations of the host culture, and it may increase the occurrence of threat appraisals by providing negative expectations as to intercultural contact. In other words, the process is likely to be recursive. One possibility to break this vicious cycle is that if intercultural contact is sustained, it will eventually reduce intergroup anxiety (Pettigrew and Tropp, 2008); when anxiety is low, more processing resources are available for a more efficient processing of disconfirming information and for culture learning. The interconnections between the A, B and C of cross-cultural adaptation are likely to consist of similar or even more complex feedback loops because the processes underpinning affective, behavioral and cognitive adaptation unfold in the same time and interact with each other, and a change in one element reflects upon other elements.

Appraisal and culture learning seem to be the two phenomena that connect the A, B, and C of cross-cultural adaptation. While the ABC model (Ward et al., 2001) associates appraisal exclusively with the affective dimension, van der Zee and van Oudenhoven (2013) argue that whether an intercultural situation is appraised as a threat or as a challenge is just as relevant for the cognitive dimension. Research on stereotyping supports this view by showing that cognitions

inform appraisal by providing expectations, and appraisal informs cognitions by providing valence (Stephan & Stephan, 1996, 2000; Riek et al., 2006; Scherer, 2013). Moreover, appraisal has a behavioral component: fight or flight, an impulse to either deal with intercultural situations or avoid them (Lazarus & Folkman, 1984; see also van der Zee & van Oudenhoven, 2013). As to culture learning, I have argued that although the ABC model associates it only with behavior and acquisition of behavioral skills, culture learning also refers to acquiring information about the host culture and integrating it into the cognitive representation of this culture (cf. Masgoret & Ward, 2006). Better behavioral skills and more adequate knowledge may in turn increase confidence during intercultural interactions, resulting in less threat appraisals and less stress.

Overall, I propose that (a) social-cognitive adaptation is manifested as an adequate representation (i.e., stereotype) of the host national outgroup, (b) the functional representation is acquired via revision of the initial stereotype, and (c) social-cognitive adaptation is informed by culture learning and appraisal processes through which it is interconnected to affective and behavioral adaptation.

Implications for Research and Practice

In this section, I summarize the theoretical propositions stemming from the findings of the present thesis and I discuss their implications for research, as well as their practical applications. These propositions are: (1) adding social-cognitive adaptation, (2) redefining adaptation in terms of functionality, and (3) distinguishing between absolute fitness and comparative fitness. Figure 2 summarizes the revised ABC model including the above propositions.

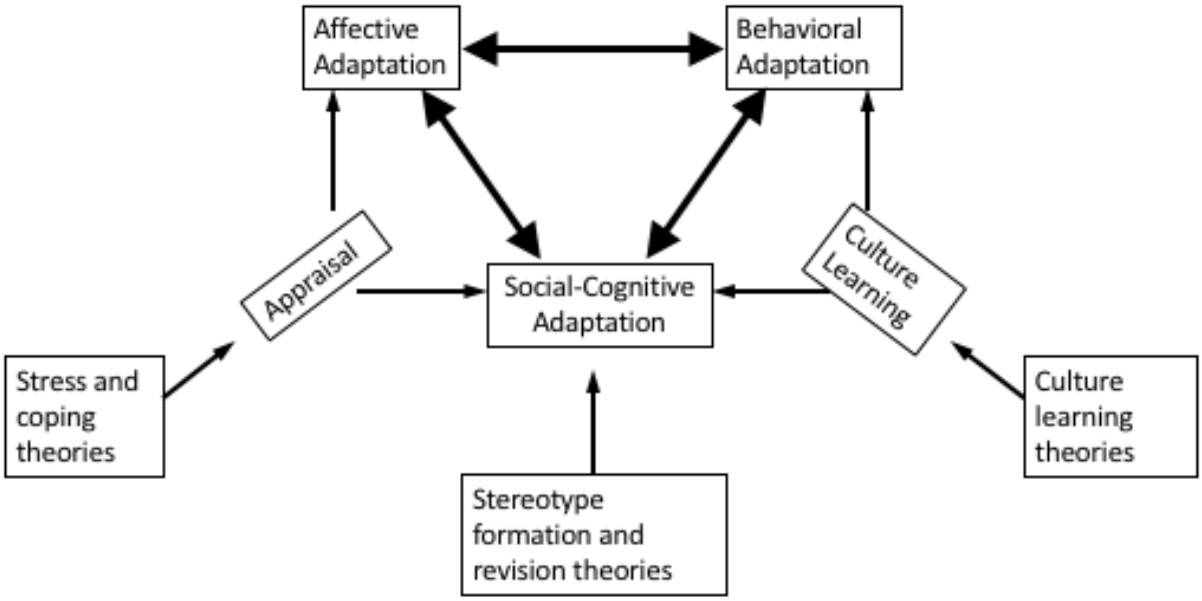

Figure 3. Revised ABC model of intercultural contact

Adding Social-Cognitive Adaptation

The work presented in previous chapters cumulatively shows that intergroup factors are highly relevant to adaptation, and some of the findings suggest that their influence may go through social cognition. For instance, the factors that our studies (Chapter 3 and 4) found to be strong correlates of adaptation, good quality contact (positive correlate), perceived discrimination and intergroup threat (negative correlates), have been consistently linked to intergroup bias in social-psychological research. Moreover, Chapter 5 showed that the degree of adaptation is consistently reflected in the valence of the representation of the host national outgroup. Therefore, I argued that for various reasons it would be useful to clearly distinguish the cognitive dimension of adaptation. Consequently, the main alteration of the ABC model I propose consists of adding a third dimension to the model: social-cognitive adaptation. I define

social-cognitive adaptation as holding functional cognitive representations of the host culture, including functional stereotypes of the host national outgroup, that is, beliefs and representations that allow for an adequate explanation and prediction of behaviors of host nationals and of relations within the host culture. I also propose that social-cognitive adaptation in terms of stereotypes of host-nationals is acquired in a stereotype revision process.

This addition not only explains why and how adaptation is reflected at the cognition level, but it may also help establish the processes behind strong correlations between socio-cultural adaptation scales and intergroup factors such as perceived discrimination and contact quality. Once the cognitive dimension is clearly distinguished from the behavioral dimension, the way is open to testing various hypotheses on how intergroup factors affect acquisition of behavioral skills on the one hand, and social cognitions on the other.

Another major challenge to be addressed is the measurement of social-cognitive adaptation. Although I proposed one way of measuring it in Chapter 5 (i.e., using the reverse correlation paradigm), this measurement has one major limitation: it does not seem to allow for going beyond the valence of host national stereotype. Yet, I argued in this chapter that it is not valence of the stereotype, but its adequacy that matters. The operational criteria for this adequacy, however, remain an open question. Research may come up with more creative assessment methods, sensitive enough to identify to what extent the stereotype is actually adequate and adaptive. Once the measurement issue is addressed, a number of other questions can be investigated. For instance, most if not all the hypothetical processes behind cognitive adaptation described in this chapter are based on intergroup research and require an empirical investigation specifically in the context of cross-cultural adaptation. These processes include formation and revision of host national stereotypes, threats to stereotype adequacy,

interconnections with behavioral and affective adaptation, etc. Although building on existing findings, social-cognitive adaptation is a brand-new field of study with a high potential for innovative research.

Functional Approach

The literature review presented in Chapter 2 found several blind areas in adaptation research that appear to stem, at least partially, from different, sometimes implicit and not always convergent definitions of adaptation research departs from. For example, socio-cultural adaptation in migrant research is mostly approached in terms of pathology or success. This diversity of approaches is in contradiction with the universal character of adaptation processes and outcomes supported by the meta-analytical findings of Chapter 3. In an attempt to propose a more integrated approach, I revisited the primary concept of adaptation in evolutionary biology and, by analogy, I proposed to define adaptation as a state of form that is functional. Such a shift to functionality may help unify the understanding of adaptation in different research areas and make sure that it covers a comparable set of outcomes across the adapting populations, rather than diverse and incomparable outcomes ranging from pathology, through fitting in, to occupational success.

Consequently, I formulated a new definition of affective (i.e., psychological) adaptation as maintaining, returning to, or exceeding one's personal set point of subjective well-being from before the transition. One challenge for research is to align measurement with the functional definition so that it does not rely on the assumption that the higher the reported level of well-being, the better. As to behavioral (i.e., socio-cultural) adaptation, while its definition does not seem to require revision, operational definitions in terms of success (e.g., school grades; Leung, 2001b) or pathology (e.g., antisocial behaviors) should be revised in research practice. It is, of

course, legitimate for researchers to keep using these variables, but they should not be labelled as indicators of socio-cultural adaptation. Aligning the assessment instruments of affective and behavioral adaptation with their functional definitions may be relatively simple. In many cases, it may be enough to specify that the researchers want to know how well sojourners and migrants function behaviorally and affectively as compared to an average host national, or as compared to themselves before the intercultural transition.

Absolute Fitness and Relative Fitness

A second striking finding from the literature review (Chapter 2) is the neglect of culture learning in migrant research, which again goes against the universality of processes behind adaptation assumed by theory (Ward et al., 2001) and supported by our meta-analytic findings (see Chapter 3). I have argued that this neglect is unjustified because culture learning, as well as adaptation in general, is not limited to learning basic culture-relevant skills and achieving a minimal level of fitness. Consequently, I proposed to distinguish between absolute and relative fitness. While so far research has focused on the former, it is the latter that accounts for advanced levels of culture learning and adaptation in long-term stays within the host culture by comparing sojourners or migrants to either the local people or themselves from before the transition.

One challenge for research related to this proposition is that the existing assessment instruments are not fit to account for the whole continuum of adaptation that relative fitness may cover. For instance, socio-cultural adaptation scales seem to tap mostly into rather basic aspects of absolute fitness that newcomers may learn rather quickly (e.g., going shopping). This focus not only limits the spectrum of adaptation that is measured (absolute fitness); it also limits the informative value of these scales when it comes to grasping actual differences in social functioning between long-term sojourners or migrants and host nationals (relative fitness). To tap

into a broad spectrum of adaptation, one possible solution could be to come up with progressive instruments to measure behavioral skills, where the level of difficulty would increase similarly as in progressive intelligence tests (e.g., Raven's Progressive Matrices; Raven, 2000). Once more advanced behavioral skills are covered, relative fitness can be assessed as well, for example by asking participants to rate their behavioral skills relatively to host nationals.

Measuring adaptation progressively and relatively to one's starting point or to an average host national has two advantages. First, it can be applied to any adapting population, including long-term migrants or even second and further generations, who may still be at disadvantage in terms of relative fitness. Second, it is more fair toward the sojourner and migrant participants because it compares them to the average and not to the best. Such measurement could also be useful to accurately assess the efficacy of intervention programs enhancing sojourner and/or immigrant adaptation. Currently available methods, because they focus on rather basic aspects, may not be able to identify programs that have a broader scope and a better efficacy, for example those aiming at the acquisition of more advanced skills.

Implications for Policy and Intervention Programs

The application of the findings presented in the previous chapters implies a certain mindset shift. The current focus of policy makers, organizations working with sojourners and immigrants, and media seems to be mostly on two extremes: either the social pathology that immigration is blamed for (e.g., interventions in problematic urban areas with immigrant presence) or on immigrant success (e.g., interventions to ensure school success of immigrant children). Such approaches are useful and often necessary, and certainly should be continued. Yet, a third approach could be added: that of functionality. Even those immigrants and sojourners whose functioning in the host society does not bear signs of social pathology (and who, I assume,

are a great majority) may still benefit from interventions that would enhance their culture learning outcomes and help them stabilize their perceived well-being at functional levels. Even those migrants and sojourners can be still assisted to attain, before success understood as high educational achievement or high work performance, a stable and functional relationship with the host society that seems to be a prerequisite so that they can positively contribute to this society.

To be fair, this is already being done. One example from Portugal is the NGO called AJPAS that develops alternative forms of assistance to immigrants. For example, AJPAS offers foreign language courses the purpose of which is not only to teach the language, but also to provide knowledge about the Portuguese culture and to engage students in a reflection on cultural differences between Portugal and their home countries. AJPAS also offers role play activities during which immigrants can train culturally appropriate behaviors for dealing, for example, with local authorities (Schulte-Nahring, 2018). However, this does not seem to be the mainstream approach. This NGO and other organizations across the world developing similar innovative intervention programs could certainly use a theoretical, science-based framework that would help them contextualize their approaches, succeed with their funding applications, and ultimately evaluate the efficacy of their programs. This thesis is one step toward providing such a framework.

Finally, the evidence from studies reported in this thesis has one major implication for immigration-related policies and intervention programs. Newcomers have to make sense of the world, of the situation they are in, of the social structure and the cultural patterns of the country they live in. These cognitions are partially informed by their experience of intergroup relations, which is reflected in the results of our studies presented in Chapter 3 and 4. Intergroup research, in turn, suggests that it is via the newcomers' understanding, their perceptions and beliefs, that

intergroup relations influence affect and behavior. Yet, this is not the end of the process: affect, behavior and cognition also influence how intergroup relations further develop. If, as I theorize, good adaptation involves more adequate stereotypes of host nationals, more functional intercultural interactions and less extreme attitudes toward the host national outgroup, then helping people adapt affectively, behaviorally and cognitively may be seen as prevention of intergroup tension, conflict and maybe even radicalization. Supporting sojourner/immigrant adaptation means supporting the harmony of multicultural societies.

References

References marked with an [R] were included in the literature review reported in Chapter 2. References marked with an [M] were included in the meta-analysis reported in Chapter 3.

Addis, M. E., & Mahalik, J. R. (2003). *Men, masculinity, and the contexts of help seeking*. American Psychologist, 58(1), 5–14. DOI: 10.1037/0003-066X.58.1.5

[RM] Al-Sharideh, K. A. (1998). Ethnic Communities within the University: An Examination of Factors Influencing the Personal Adjustment of International Students. *Research in Higher Education, 39*(6), 699–725. DOI: 10.1023/A:1018714125581

[RM] Ali, A., Van der Zee, K., & Sanders, G. (2003). Determinants of Intercultural Adjustment among Expatriate Spouses. *International Journal of Intercultural Relations, 27*(5), 563–580. DOI: 10.1016/S0147-1767(03)00054-3

Allport, G. W. (1954/1979). *The Nature of Prejudice*. Cambridge, MA: Perseus Books.

[R] Alshammari, H. (2012). Self-Initiated Expatriate Adjustment in Saudi Universities: The Role of Previous Experience and Marital Status. *International Journal of Business and Social Science, 3*(23), 184—194.

Amodio, D. M. (2009). Intergroup anxiety effects on the control of racial stereotypes: A psychoneuroendocrine analysis. *Journal of Experimental Social Psychology*, *45*(1), 60-67. DOI: 10.1016/j.jesp.2008.08.009

Anderson, C., Kraus, M.W., Galinsky, A.D., & Keltner, D. (2012). The Local-Ladder Effect: Social Status and Subjective Well-Being. *Psychological Science*, *23*(7), 764—71. DOI: 10.1177/0956797611434537

Anderson, L. E. (1994). A new look at an old construct: Cross-cultural adaptation. *International Journal of Intercultural Relations*, *18*(3), 293-328. DOI: 10.1016/0147-1767(94)90035-3

RM Anderzén, I., & Arnetz, B. B. (1997). Psychophysiological Reactions during the First Year of a Foreign Assignment: Results of a Controlled Longitudinal Study. *Work & Stress, 11*(4), 304–318. DOI: 10.1080/02678379708252994

Andresen, M., Bergdolt, F., Margenfeld, J. & Dickmann, M. (2014). Addressing International Mobility Confusion – Developing Definitions and Differentiations for Self-Initiated and Assigned Expatriates as Well as Migrants. *International Journal of Human Resource Management*, *25*(16). DOI: 10.1080/09585192.2013.877058.

RM Aryee, S., & Stone, R. J. (1996). Work Experiences, Work Adjustment and Psychological Well-Being of Expatriate Employees in Hong Kong. *International Journal of Human Resource Management, 7*(1), 150–164. DOI: 10.1080/09585199600000122

RM Ataca, B., & Berry, J. W. (2002). Psychological, Sociocultural, and Marital Adaptation of Turkish Immigrant Couples in Canada. *International Journal of Psychology, 37*(1), 13–26. DOI: 10.1080/00207590143000135

RM Aycan, Z., & Berry, J. (1996). Impact of Employment-Related Experiences on Immigrants' Psychological Well-Being and Adaptation to Canada. *Canadian Journal of Behavioural Science, 28*(3), 240–251.

M Bai, J. (2012). *Development and Validation of The Acculturative Stress Scale for Chinese College Students in The United States (ASSCCS)* (Unpublished doctoral dissertation). Indiana University, Bloomington (USA).

RM Bakker, W., Van Oudenhoven, J. P., & Van der Zee, K. I. (2004). Attachment Styles, Personality, and Dutch Emigrants' Intercultural Adjustment. *European Journal of Personality, 18*(5), 387–404. DOI: 10.1002/Per.515

Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R., Harwood, J., ... & Sibley, C. G. (2012). The contact caveat: Negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality and Social Psychology Bulletin*, *38*(12), 1629—1643. DOI: 10.1177/0146167212457953

RM Barry, D. T., & Grilo, C. M. (2003). Cultural, Self-Esteem, and Demographic Correlates of Perception of Personal and Group Discrimination among East Asian Immigrants. *The American Journal of Orthopsychiatry, 73*(2), 223–229. DOI: 10.1037/0002-9432.73.2.223

M Bektaş, Y. (2004). *Psychological Adaptation and Acculturation of The Turkish Students in The United States* (Unpublished doctoral dissertation). Middle East Technical University, Ankara (Turkey).

RM Bektaş, Y., Demir, A., & Bowden, R. (2009). Psychological Adaptation of Turkish Students at U.S. Campuses. *International Journal for the Advancement of Counselling, 31*(2), 130–143. DOI: 10.1007/S10447-009-9073-5

Benet-Martínez, V., & Haritatos, J. (2005). Bicultural Identity Integration (BII): Components and Psychosocial Antecedents. Journal of Personality, 73(4), 1015-1050. doi:10.1111/j.1467-6494.2005.00337.x

Bennett, M. (2004). Becoming interculturally competent. In Wurzel, J. (Ed.). (2004). *Toward multiculturalism: A reader in multicultural education* (2nd ed., pp. 62—77). Newton, MA: Intercultural Resource Corporation.

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology*, *46*(1), 5—34. DOI: 10.1111/j.1464-0597.1997.tb01087.x

Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, *29*(6), 697—712. DOI: 10.1016/j.ijintrel.2005.07.013

Berry, J. W. (2006a). Acculturative stress. In P.T.P. Wong & L.C.J. Wong (Eds.), *Handbook of multicultural perspectives on stress and coping* (pp. 287-298). Boston, MA: Springer.

Berry, J. W. (2006b). Contexts of acculturation. In: D. L. Sam, & J. W. Berry (Eds.). *The Cambridge handbook of acculturation psychology.* Cambridge, New York: Cambridge University Press.

Berry, J. W. (2006c). Stress Perspectives on Acculturation. In Sam, D. L., Berry, J. W. (Eds). *The Cambridge Handbook of Acculturation Psychology.* Cambridge: Cambridge University Press.

Berry, J. W., & Kalin, R. (1995). Multicultural and ethnic attitudes in Canada: An overview of the 1991 National Survey. *Canadian Journal of Behavioural Science, 27*(3), 301-320. DOI: 10.1037/0008-400X.27.3.301

Berry, J. W., & Kim, U. (1988). Acculturation and mental health. In P. Dasen, J. W. Berry, & N. Sartorius (Eds.), *Health and Cross-Cultural Psychology* (pp. 207—236). Newbury Park: SAGE.

Berry, J. W., & Sabatier, C. (2010). Acculturation, discrimination, and adaptation among second generation immigrant youth in Montreal and Paris. *International Journal of Intercultural Relations, 34*(3), 191-207. DOI: 10.1016/j.ijintrel.2009.11.007

Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative Studies of Acculturative Stress. *International Migration Review, 21*(3), 491–511. DOI: 10.1177/019791838702100303

Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). Immigrant Youth: Acculturation, Identity, and Adaptation. *Applied Psychology, 55*(3), 303–332. DOI:10.1111/j.1464-0597.2006.00256.x

Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (Eds.). (2006). *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts*. Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (2002). *Cross-cultural psychology: Research and applications*. Cambridge University Press.

Bhaskar-Shrinivas, P., Harrison, D. A., Shaffer, M. A., & Luk, D. (2005). Input-Based and Time-Based Models of International Adjustment. Meta-Analytic Evidence and Theoretical Extensions. *Academy of Management Journal, 48*(2), 257–281. DOI: 10.5465/amj.2005.16928400

Bierwiaczonek, K., & Waldzus, S. (2016). Socio-Cultural Factors as Antecedents of Cross-Cultural Adaptation in Expatriates, International Students, and Migrants A Review. *Journal of Cross-Cultural Psychology*, *47*(6), 767–817. DOI: 10.1177/0022022116644526

Bierwiaczonek, K., Waldzus, S, van der Zee, K., & Vauclair, C.-M. (*under review*). Social-Contextual Antecedents of Cross-Cultural Adaptation: A Meta-Analysis 1988-2014.

M Bierwiaczonek, K., Waldzus, S., & van der Zee, K.I. (2014). Unpublished dataset. ISCTE-IUL, Lisbon (Portugal).

[M] Bierwiaczonek, K., Waldzus, S., & van der Zee, K.I. (2015). Unpublished dataset. ISCTE-IUL, Lisbon (Portugal).

[M] Bigler, M. (2007). *Exploratory Study of Distress Among Spouses of International Students* (Unpublished doctoral dissertation). University of Florida, Gainesville (USA).

[RM] Birman, D., Simon, C. D., Chan, W. Y., & Tran, N. (2014). A Life Domains Perspective on Acculturation and Psychological Adjustment: A Study of Refugees from the Former Soviet Union. *American Journal of Community Psychology, 53*(1-2), 60–72. DOI: 10.1007/S10464-013-9614-2

Birman, D., Trickett, E. J., & Vinokurov, A. (2002). Acculturation and adaptation of Soviet Jewish refugee adolescents: Predictors of adjustment across life domains. *American journal of community psychology*, *30*(5), 585-607. DOI: 10.1023/A:1016323213871

[RM] Black, J. (1988). Work Role Transitions: A Study of American Expatriate Managers in Japan. *Journal of International Business Studies, 19*(2), 277–294. DOI: 10.1057/palgrave.jibs.8490383

[RM] Black, J. S. (1990). Locus of Control, Social Support, Stress, and Adjustment in International Affairs. *Asia Pacific Journal of Management, 7*(1), 1–29. DOI: 10.1007/BF01731881

[RM] Black, J. S., & Stephens, G. K. (1989). The Influence of the Spouse on Expatriate Adjustment and Intent to Stay in Overseas Assignments. *Academy of Management Best Papers Proceedings, 8*(1), 101–105. DOI: 10.5465/AMBPP.1989.4977988

Black, J.S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple perspectives. *Academy of Management Review, 16*(2), 291–317. DOI: doi.org/10.5465/amr.1991.4278938

[M] Boiger, M. (2008). *Adaptation of International Students in Japan: The Cultural Fit of Control Orientation* (Unpublished master dissertation). University of Konstanz, Konstanz (Germany).

Bourhis, R. Y., Moise, L. C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International Journal of Psychology, 32*(6), 369–389. DOI: 10.1080/002075997400629

Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving Pervasive Discrimination among African Americans: Implications for Group Identification and Well-Being. *Journal of Personality and Social Psychology,* 77(1), 135–149. DOI:10.1037//0022-3514.77.1.135

Brewer, M. B., Dull, V., & Lui, L. (1981). Perceptions of the elderly: Stereotypes as prototypes. *Journal of Personality and Social Psychology, 41*, 656–670. DOI: 10.1037/0022-3514.41.4.656

Brewster, C., Bonache, J., Cerdin, J. L., & Suutari, V. (2014). Exploring expatriate outcomes. *International Journal of Human Resource Management*, 25(14), 1921-1937. DOI: 10.1080/09585192.2013.870284

[RM] Briones, E., Verkuyten, M., Cosano, J., & Tabernero, C. (2012). Psychological Adaptation of Moroccan and Ecuadorean Immigrant Adolescents in Spain. *International Journal of Psychology, 47*(1), 28–38. DOI: 10.1080/00207594.2011.569722

[RM] Brisset, C., Safdar, S., Lewis, J. R., & Sabatier, C. (2010). Psychological and Sociocultural Adaptation of University Students in France: The Case of Vietnamese International Students. *International Journal of Intercultural Relations, 34(*4), 413–426. DOI: 10.1016/J.Ijintrel.2010.02.009

Brock, J. P. (2000). *The evolution of adaptive systems: The general theory of evolution*. Academic Press/Elsevier.

Brown, R., & Zagefka, H. (2011). The Dynamics of Acculturation: An Intergroup Perspective. *Advances in Experimental Social Psychology, 44*, 129-184. DOI: 10.1016/B978-0-12-385522-0.00003-2

R Caligiuri, P. M., Hyland, M. M., Joshi, A., & Bross, A. S. (1998). Testing a Theoretical Model for Examining the Relationship Between Family Adjustment and Expatriates' Work Adjustment. *Journal of Applied Psychology, 83*(4), 598–614.

RM Caligiuri, P. M., Joshi, A., & Lazarova, M. (1999). Factors Influencing the Adjustment of Women on Global Assignments. *International Journal of Human Resource Management, 10*(2), 163–179. DOI: 10.1080/095851999340495

RM Cemalcilar, Z., Falbo, T., & Stapleton, L. M. (2005). Cyber Communication: A New Opportunity for International Students' Adaptation? *International Journal of Intercultural Relations, 29*(1), 91–110. DOI: 10.1016/J.Ijintrel.2005.04.002

Cerdin, J.L., & Selmer, J. (2014). Who is a self-initiated expatriate? Towards conceptual clarity of a common notion. *International Journal of Human Resource Management, 25*(9), 1281–1301. DOI: 10.1080/09585192.2013.863793

RM Cetinkaya-Yildiz, E., Cakir, S. G., & Kondakci, Y. (2011). Psychological Distress among International Students in Turkey. *International Journal of Intercultural Relations, 35*(5), 534–539. DOI: 10.1016/J.Ijintrel.2011.04.001

RM Chapdelaine, R. F., & Alexitch, L. R. (2004). Social Skills Difficulty: Model of Culture Shock for International Graduate Students. *Journal of College Student Development, 45*(2), 167–184. DOI: 10.1353/Csd.2004.0021

RM Chen, G., Kirkman, B. L., Kim, K., Farh, C. I. C., & Tangirala, S. (2010). When Does Cross-Cultural Motivation Enhance Expatriate Effectiveness? A Multilevel Investigation of the Moderating Roles of Subsidiary Support and Cultural Distance. *Academy of Management Journal, 53*(5), 1110–1130. DOI: 10.5465/AMJ.2010.54533217

RM Chen, H.-F. (2010). The Relationships of Organizational Justice, Social Exchange, Psychological Contract, and Expatriate Adjustment: An Example of Taiwanese Business Expatriates. *International Journal of Human Resource Management, 21*(7), 1090–1107. DOI: 10.1080/09585191003783520

RM Chen, H., Mallinckrodt, B., & Mobley, M. (2002). Attachment Patterns of East Asian International Students and Sources of Perceived Social Support as Moderators of the Impact of US Racism and Cultural Distress. *Asian Journal of Counselling, 9*(1 & 2), 27–48.

Chen, M., & Bargh, J. A. (1997). Nonconscious behavioral confirmation processes: The self-fulfilling consequences of automatic stereotype activation. *Journal of Experimental Social Psychology*, *33*(5), 541-560. DOI: 10.1006/jesp.1997.1329

RM Chen, S. X., Benet-Martínez, V., & Bond, M. H. (2008). Bicultural Identity, Bilingualism, and Psychological Adjustment in Multicultural Societies: Immigration-Based and Globalization-Based Acculturation. *Journal of Personality, 76*(4), 803–837. DOI: 10.1111/J.1467-6494.2008.00505.X

Cheung, C. K., & Llu, S. C. (2000). Acculturation, Social Integration and School Achievement among Low-Ability Seventh Graders' School Achievement in Hong Kong. *International Journal of Adolescence and Youth, 8*(1), 81—108. DOI: 10.1080/02673843.2000.9747843

RM Chiu, Y.-P., Wu, M., Zhuang, W.-L., & Hsu, Y.-Y. (2009). Influences on Expatriate Social Networks in China. *International Journal of Human Resource Management, 20*(4), 790–809. DOI: 10.1080/09585190902770703

RM Chou, K.-L. (2012). Perceived Discrimination and Depression among New Migrants to Hong Kong: The Moderating Role of Social Support and Neighborhood Collective Efficacy. *Journal of Affective Disorders, 138*(1-2), 63–70. DOI: 10.1016/J.Jad.2011.12.029

Church, A. T. (1982). Sojourner adjustment. *Psychological Bulletin, 91*(3), 540–572. DOI: 10.1037/0033-2909.91.3.540

RM Clément, R., Noels, K. A., & Deneault, B. (2001). Interethnic Contact, Identity, and Psychological Adjustment: The Mediating and Moderating Roles of Communication. *Journal of Social Issues, 57*(3), 559–577. DOI: 10.1111/0022-4537.00229

Coatsworth, J. D., Maldonado-Molina, M., Pantin, H., & Szapocznik, J. (2005). A person-centered and ecological investigation of acculturation strategies in Hispanic immigrant youth. *Journal of Community Psychology, 33(*2), 157-174. DOI: 10.1002/jcop.20046

RM Cole, N. D. (2011). Managing Global Talent: Solving the Spousal Adjustment Problem. *International Journal of Human Resource Management, 22*(7), 1504–1530. DOI: 10.1080/09585192.2011.561963

RM Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-Concealment, Social Self-Efficacy, Acculturative Stress, and Depression in African, Asian, and Latin American International College Students. *The American Journal of Orthopsychiatry, 74*(3), 230–41. DOI: 10.1037/0002-9432.74.3.230

Coombs, R. H. (1991). Marital status and personal well-being: A literature review. *Family relations*, *40*(1), 97-102. DOI: 10.2307/585665

RM Copeland, A. P., & Norell, S. K. (2002). Spousal Adjustment on International Assignments: The Role of Social Support. *International Journal of Intercultural Relations, 26*(3), 255–272. DOI: 10.1016/S0147-1767(02)00003-2

Copeland, A. P., & Norell, S. K. (2002). Spousal Adjustment on International Assignments: The Role of Social Support. *International Journal of Intercultural Relations, 26*(3), 255–272. DOI:10.1016/S0147-1767(02)00003-2

RM Cross, S. E. (1995). Self-Construals, Coping, and Stress in Cross-Cultural Adaptation. *Journal of Cross-Cultural Psychology, 26*(6), 673–697. DOI: 10.1177/002202219502600610

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology, 40*, 61-149. DOI: 10.1016/S0065-2601(07)00002-0

R Dao, T. K., Lee, D., & Chang, H. L. (2007). Acculturation Level, Perceived English Fluency, Perceived Social Support Level, and Depression among Taiwanese International Students. *College Student Journal, 41*(2), 287–295.

RM De Cieri, H., Dowling, P. J., & F. Taylor, K. (1991). The Psychological Impact of Expatriate Relocation on Partners. *International Journal of Human Resource Management*, *2*(3), 377–414. DOI: 10.1080/09585199100000074

Demes, K. A., & Geeraert, N. (2014). Measures Matter: Scales for Adaptation, Cultural Distance, and Acculturation Orientation Revisited. *Journal of Cross-Cultural Psychology, 45*(1), 91-109. DOI:10.1177/0022022113487590

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, *49*, 71—75. DOI : 0.1207/s15327752jpa4901_13

Diener, E., Lucas, R. E., & Scollon, C. N. (2009). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. In Huppert, F. A., Baylis, N., & Keverne, B. (Eds.). *The science of well-being* (pp. 103-118). Dordrecht: Springer.

Dotsch, R. (2015). rcicr: Reverse-correlation image-classification toolbox [R package Version 0.3.0]. Retrieved from https://CRAN.R-project.org/package=rcicr

Dotsch, R., & Todorov, A. (2012). Reverse correlating social face perception. *Social Psychological and Personality Science, 3*(5), 562-571. DOI: 0.1177/1948550611430272

Dotsch, R., Wigboldus, D. H., Langner, O., & van Knippenberg, A. (2008). Ethnic Out-Group Faces Are Biased in the Prejudiced Mind. *Psychological Science, 19*(10), 978-980. DOI: 10.1111/j.1467-9280.2008.02186.x

Doucerain, M., Dere, J., & Ryder, A. G. (2013). Travels in hyper-diversity: Multiculturalism and the contextual assessment of acculturation. *International Journal of Intercultural Relations, 37*(6), 686-699. DOI: 0.1016/j.ijintrel.2013.09.007

RM Duru, E., & Poyrazli, S. (2011). Perceived Discrimination, Social Connectedness, and Other Predictors of Adjustment Difficulties among Turkish International Students. *International Journal of Psychology, 46*(6), 446–54. DOI: 10.1080/00207594.2011.585158

Eagly, A. H., & Steffen, V. J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology, 46,* 735–754. DOI: 10.1037/0022-3514.46.4.735

European Union (2013). *Top 100 Higher Education Institutions Receiving Erasmus Students. Erasmus Statistics 2011-2012*. Retrieved 04/05/2014 from http://ec.europa.eu/education/tools/statistics_en.htm

European Union (2014). The Portrait of the Typical Erasmus Student [Graph illustration]. *Erasmus statistics from 2012-2013.* Retrieved 19/05/2015 from http://ec.europa.eu/education/tools/statistics_en.htm

M Farcas, D. (2012). *A Família Chama Por Mim, Mas O Trabalho Não Tem Fim... Necessidades E Desafios Do Ponto De Vista Psicossocial Das Famílias Expatriadas* (Unpublished master dissertation). ISCTE-IUL, Lisbon (Portugal).

R Fassaert, T., De Wit, M. A S., Tuinebreijer, W. C., Knipscheer, J. W., Verhoeff, A. P., Beekman, A. T. F., & Dekker, J. (2011). Acculturation and Psychological Distress among Non-Western Muslim Migrants--A Population-Based Survey. *International Journal of Social Psychiatry, 57*(2), 132–43. DOI: 10.1177/0020764009103647

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191. DOI: 10.3758/BF03193146

RM Firth, B. M., Chen, G., Kirkman, B. L., & Kim, K. (2014). Newcomers Abroad: Expatriate Adaptation during Early Phases of International Assignments. *Academy of Management Journal, 57*(1), 280–300. DOI: 10.5465/Amj.2011.0574

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*(6), 878—902. DOI: 10.1037/0022-3514.82.6.878

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing Moderator and Mediator Effects in Counseling Psychology Research. *Journal of Counseling Psychology, 51*(1), 115–134. DOI: 10.1037/0022-0167.51.2.157

RM Frey, L. L., & Roysircar, G. (2006). South Asian and East Asian International Students' Perceived Prejudice, Acculturation, and Frequency of Help Resource Utilization. *Journal of Multicultural Counseling and Development, 34*(4), 208–222. DOI: 10.1002/J.2161-1912.2006.Tb00040.X

R Fritz, M. V., Chin, D., & Demarinis, V. (2008). Stressors, Anxiety, Acculturation and Adjustment among International and North American Students. *International Journal of Intercultural Relations, 32*(3), 244–259. DOI: 10.1016/J.Ijintrel.2008.01.001

R Froese, F. J., & Peltokorpi, V. (2013). Organizational Expatriates and Self-Initiated Expatriates: Differences in Cross-Cultural Adjustment and Job Satisfaction. *International Journal of Human Resource Management, 24*(10), 1953–1967. DOI: 10.1080/09585192.2012.725078

RM Furukawa, T., & Shibayama, T. (1993). Predicting Maladjustment of Exchange Students in Different Cultures: A Prospective Study. *Social Psychiatry and Psychiatric Epidemiology, 28*(3), 142–146. DOI: 10.1007/BF00801745

RM Furukawa, T., Sarason, I. G., & Sarason, B. R. (1998). Social Support and Adjustment to a Novel Social Environment. *International Journal of Social Psychiatry, 44*(1), 56–70. DOI: 10.1177/002076409804400106

RM Galchenko, I., & Van De Vijver, F. J. R. (2007). The Role of Perceived Cultural Distance in the Acculturation of Exchange Students in Russia. *International Journal of Intercultural Relations, 31*(2), 181–197. DOI: 10.1016/J.Ijintrel.2006.03.004

Galesic, M. (2006). Dropouts on the Web : Effects of Interest and Burden Experienced During an Online Survey. *Journal of Official Statistics, 22*(2), 313–328.

RM Gao, G., & Gudykunst, W. B. (1990). Uncertainty, Anxiety, and Adaptation. *International Journal of Intercultural Relations, 14*(3), 301-317. DOI: 10.1016/0147-1767(90)90017-Q

Garrard, J. (2011). *Health Sciences Literature Review Made Easy: The Matrix Method*. 3rd ed. Sudbury, MA: Jones & Bartlett Learning.

RM Gaudet, S., Clément, R., & Deuzeman, K. (2005). Daily Hassles, Ethnic Identity and Psychological Adjustment among Lebanese-Canadians. *International Journal of Psychology, 40*(3), 157–168. DOI: 10.1080/00207590444000267

RM Gawronski, B. (2004). Theory-based bias correction in dispositional inference: The fundamental attribution error is dead, long live the correspondence bias. *European Review of Social Psychology, 15*(1), 183-217. DOI: 10.1080/10463280440000026

RM Geeraert, N., Demoulin, S., & Demes, K. A. (2014). Choose Your (International) Contacts Wisely: A Multilevel Analysis on the Impact of Intergroup Contact While Living Abroad. *International Journal of Intercultural Relations, 38,* 86–96. DOI: 10.1016/J.Ijintrel.2013.08.001

RM Ghaffari, A., & Çiftçi, A. (2010). Religiosity and Self-Esteem of Muslim Immigrants to the United States: The Moderating Role of Perceived Discrimination. *International Journal for the Psychology of Religion, 20*(1), 14–25. DOI: 10.1080/10508610903418038

Giamo, L. S., Schmitt, M. T., & Outten, H. R. (2012). Perceived Discrimination, Group Identification, and Life Satisfaction among Multiracial People: A Test of the Rejection-Identification Model. *Cultural Diversity and Ethnic Minority Psychology, 18*(4), 319–328. DOI:10.1037/a0029729

RM Gilbert, D. T., & Malone, P. S. (1995). The Correspondence Bias. *Psychological Bulletin*, 117, 21–38. DOI: 10.1037/0033-2909.117.1.21

RM Gong, Y. (2003). Goal Orientations and Cross-Cultural Adjustment: An Exploratory Study. *International Journal of Intercultural Relations, 27*(3), 297–305. DOI: 10.1016/S0147-1767(03)00013-0

RM Gong, Y., & Fan, J. (2006). Longitudinal Examination of the Role of Goal Orientation in Cross-Cultural Adjustment. *Journal of Applied Psychology, 91*(1), 176–84. DOI: 10.1037/0021-9010.91.1.176

Gonzales, N. A., Deardorff, J., Formoso, D., Barr, A., & Barrera, M. (2006). Family Mediators of the Relation between Acculturation and Adolescent Mental Health. *Family Relations, 55*(3), 318—330. DOI: 10.1111/j.1741-3729.2006.00405.x

González, R., Sirlopú, D., & Kessler, T. (2010). Prejudice among Peruvians and Chileans as a function of identity, intergroup contact, acculturation preferences, and intergroup emotions. *Journal of Social Issues, 66*(4), 803—824. DOI: 10.1111/j.1540-4560.2010.01676.x

RM Grant-Vallone, E. J., & Ensher, E. A. (2001). An Examination of Work and Personal Life Conflict, Organizational Support, and Employee Health among International Expatriates. *International Journal of Intercultural Relations, 25*(3), 261–278. DOI: 10.1016/S0147-1767(01)00003-7

R Grinstein, A., & Wathieu, L. (2012). Happily (Mal)Adjusted: Cosmopolitan Identity and Expatriate Adjustment. *International Journal of Research in Marketing, 29*(4), 337–345. DOI: 10.1016/J.Ijresmar.2012.03.003

M Guerra, R., & Pires França, A. (2015). *Adaptação de imigrantes Portugueses em Angola: estatuto, indispensabilidade funcional e estratégias de aculturação* (Unpublished master dissertation). ISCTE-IUL, Lisbon (Portugal).

R Gupta, V., Dasgupta, P., & Chakrabarty, S. (2014). Satisfaction with Life in Cross-Cultural Setting – Case of European Expatriates in India. *International Journal of Physical and Social Sciences, 4*(3), 175-195.

Hafez, M., & Mullins, C. (2015). The Radicalization Puzzle: A Theoretical Synthesis of Empirical Approaches to Homegrown Extremism. *Studies in Conflict and Terrorism, 38*(11), 958-975. DOI: 10.1080/1057610X.2015.1051375

Hall, E.T. (1989). *Beyond culture*. New York. Anchor Books.

Hammer, M. R., Bennett, M. J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations*, *27*(4), 421—443. DOI: 10.1016/S0147-1767(03)00032-4

Haslam, S.A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social Identity, Health and Well-Being: An Emerging Agenda for Applied Psychology. *Applied Psychology, 58*(1), 1–23. DOI: 10.1111/j.1464-0597.2008.00379.x

Haslberger, A., & Brewster, C. (2007). Domains of expatriate adjustment with special emphasis on work. Paper presented at the Cadiz University's VI International Workshop on HR Management, Jerez, Spain.

RM Hechanova-Alampay, R., Beehr, T. A., Christiansen, N. D., & Van Horn, R. K. (2002). Adjustment and Strain among Domestic and International Student Sojourners: A Longitudinal Study. *School Psychology International, 23*, 458–474. DOI: 10.1177/0143034302234007

Hechanova, R., Beehr, T. A., & Christiansen, N. D. (2003). Antecedents and Consequences of Employees' Adjustment to Overseas Assignment: A Meta-analytic Review. *Applied Psychology, 52*(2), 213–236. DOI:10.1111/1464-0597.00132

Hedges, L. V. & Vevea, J. L. (1998). Fixed- and random-effects models in meta-analysis. *Psychological Methods, 3*, 486-504. DOI: 10.1037/1082-989X.3.4.486

Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis.* Orlando, FL: Academic Press.

RM Hendrickson, B., Rosen, D., & Aune, R. K. (2011). An Analysis of Friendship Networks, Social Connectedness, Homesickness, and Satisfaction Levels of International Students. *International Journal of Intercultural Relations, 35*(3), 281–295. DOI: 10.1016/J.Ijintrel.2010.08.001

RM Herleman, H. A., Britt, T. W., & Hashima, P. Y. (2008). Ibasho and the Adjustment, Satisfaction, and Well-Being of Expatriate Spouses. *International Journal of Intercultural Relations, 32*(3), 282–299. DOI: 10.1016/J.Ijintrel.2008.01.004

Hobfoll, S. E. (1989). Conservation of Resources. A New Attempt at Conceptualizing Stress. *The American Psychologist, 44*(3), 513–524. DOI:10.1037/0003-066X.44.3.513

Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource Loss, Resource Gain, and Emotional Outcomes Among Inner City Women. *Journal of Personality and Social Psychology, 84*(3), 632–643. DOI:10.1037/0022-3514.84.3.632

Hoffman, C., & Hurst, N. (1990). Gender stereotypes: Perception or rationalization?. *Journal of Personality and Social Psychology*, *58*(2), 197.

Hofhuis, J., Van der Zee, K. I., & Otten, S. (2013). Measuring Employee Perception on the Effects of Cultural Diversity at Work: Development of the Benefits and Threats of Diversity Scale. *Quality & Quantity, 49*(1), 177–201. DOI:10.1007/s11135-013-9981-7

RM Hovey, J. D. (2000). Acculturative Stress, Depression, and Suicidal Ideation in Mexican Immigrants. *Cultural Diversity & Ethnic Minority Psychology, 6*(2), 134–151. DOI: 10.1037//1099-9809.6.2.134

RM Hovey, J. D., & King, C. A. (1996). Acculturative Stress, Depression, and Suicidal Ideation among Immigrant and Second-Generation Latino Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 35*(9), 1183–1192. DOI: 10.1097/00004583-199609000-00016

RM Huff, K. C., Song, P., & Gresch, E. B. (2014). Cultural Intelligence, Personality, and Cross-Cultural Adjustment: A Study of Expatriates in Japan. *International Journal of Intercultural Relations, 38*(1), 151–157. DOI: 10.1016/J.Ijintrel.2013.08.005

Huntington, S. P. (1997). *The clash of civilizations and the remaking of world order*. Penguin Books India.

RM Hwang, K. P., Wang, M.-K., & Sodanine, S. (2011). The Effects of Stressors, Living Support, and Adjustment on Learning Performance of International Students in Taiwan. *Social Behavior and Personality: An International Journal, 39*(3), 333–344. DOI: 10.2224/Sbp.2011.39.3.333

Imhoff, R., Dotsch, R., Bianchi, M., Banse, R., & Wigboldus, D. H. (2011). Facing Europe: Visualizing Spontaneous In-Group Projection. *Psychological Science, 22*(12), 1583-1590. DOI: 10.1177/0956797611419675

RM Jackson, M., Ray, S., & Bybell, D. (2013). International Students in the US: Social and Psychological Adjustment. *Journal of International Students, 3*(1), 17–28.

RM Jasinskaja-Lahti, I., & Liebkind, K. (2001). Perceived Discrimination and Psychological Adjustment among Russian-Speaking Immigrant Adolescents in Finland. *International Journal of Psychology, 36*(3), 174–185. DOI: 10.1080/00207590042000074

RM Jasinskaja-Lahti, I., Liebkind, K., & Perhoniemi, R. (2006). Perceived Discrimination and Well-Being: A Victim Study of Different Immigrant Groups. *Journal of Community and Applied Social Psychology, 16*, 267–284. DOI: 10.1002/Casp.865

RM Jasinskaja-Lahti, I., Liebkind, K., Jaakkola, M., & Reuter, A. (2006). Perceived Discrimination, Social Support Networks, and Psychological Well-Being among Three Immigrant Groups. *Journal of Cross-Cultural Psychology, 37*(3), 293–311. DOI: 10.1177/0022022106286925

Jasinskaja-Lahti, I., Liebkind, K., & Solheim, E. (2009). To identify or not to identify? National disidentification as an alternative reaction to perceived ethnic discrimination. *Applied Psychology, 58(*1), 105-128. DOI: 10.1111/j.1464-0597.2008.00384.x

RM Jasperse, M., Ward, C., & Jose, P. E. (2012). Identity, Perceived Religious Discrimination, and Psychological Well-Being in Muslim Immigrant Women. *Applied Psychology, 61*(2), 250–271. DOI: 10.1111/J.1464-0597.2011.00467.X

Jayaweera, H. (2014). *Health of Migrants in the UK: What Do We Know?* Migration Observatory Briefing, COMPAS, University of Oxford, UK, September 2014. Retrieved on December 5, 2015 from http://www.migrationobservatory.ox.ac.uk/briefings/health-migrants-uk-what-do-we-know

Jayaweera, H. & Quigley, M. (2010). Health Status, Health Behaviour and Healthcare Use among Migrants in the UK: Evidence from Mothers in the Millennium Cohort Study. *Social Science & Medicine, 71*, 1002-1010.

RM Jenkins, E., & Mockaitis, A. (2010). You're from where? The Influence of Distance Factors on New Zealand Expatriates' Cross-Cultural Adjustment. *International Journal of Human Resource Management, 21*(15), 2694–2715. DOI: 10.1080/09585192.2010.528653

M Jhutty, S.P. (2007). *Emotional Intelligence and Expatriate Cross-Cultural Adjustment* (Unpublished doctoral dissertation). San Diego Alliant International University, San Diego (USA).

RM Ji, P., & Duan, C. (2006). The Relationship among Acculturation, Acculturation Stress, and Depression for a Korean and a Korean-American Sample. *Asian Journal of Counselling, 13*(2), 235–270.

RM Jibeen, T., & Khalid, R. (2010). Predictors of Psychological Well-Being of Pakistani Immigrants in Toronto, Canada. *International Journal of Intercultural Relations, 34*(5), 452–464. DOI: 10.1016/J.Ijintrel.2010.04.010

RM Johnson, E. C., Kristof-Brown, A. L., Van Vianen, A. E. M., De Pater, I. E., & Klein, M. R. (2003). Expatriate Social Ties: Personality Antecedents and Consequences for Adjustment. *International Journal of Selection and Assessment, 11*(4), 277–288. DOI: 10.1111/J.0965-075X.2003.00251.X

RM Jung, E., Hecht, M. L., & Wadsworth, B. C. (2007). The Role of Identity in International Students' Psychological Well-Being in the United States: A Model of Depression Level, Identity Gaps, Discrimination, and Acculturation. *International Journal of Intercultural Relations, 31*(5), 605–624. DOI: 10.1016/J.Ijintrel.2007.04.001

RM Kaduvettoor-Davidson, A., & Inman, A. G. (2013). South Asian Americans: Perceived Discrimination, Stress, and Well-Being. *Asian American Journal of Psychology, 4*(3), 155–165. DOI: 10.1037/A0030634

RM Kagan, H., & Cohen, J. (1990). Cultural Adjustment of International Students. Psychological Science, 1(2), 133–137. DOI: 10.1111/J.1467-9280.1990.Tb00082.X

Kalin, R., & Berry, J. W. (1996). Interethnic attitudes in Canada: Ethnocentrism, consensual hierarchy and reciprocity. *Canadian Journal of Behavioural Science, 28*(4), 253-261. DOI: 10.1037/0008-400X.28.4.253

RM Kashima, E. S., & Abu-Rayya, H. M. (2014). Longitudinal Associations of Cultural Distance with Psychological Well-Being among Australian Immigrants from 49 Countries. *Journal of Cross-Cultural Psychology, 45*(4), 587–600. DOI: 10.1177/0022022113519857

RM Kashima, E. S., & Loh, E. (2006). International Students' Acculturation: Effects of International, Conational, and Local Ties and Need for Closure. *International Journal of Intercultural Relations, 30*(4), 471–485. DOI: 10.1016/J.Ijintrel.2005.12.003

RM Kawai, N., & Strange, R. (2014). Perceived Organizational Support and Expatriate Performance: Understanding a Mediated Model. *The International Journal of Human Resource Management, 25*(17), 2438-2462. DOI: 10.1080/09585192.2014.884615

Kealey, D.J., & Protheroe, D.R. (1996). The effectiveness of cross-cultural training for expatriates: An assessment of the literature on the issue. *International Journal of Intercultural Relations, 20*, 141—165. DOI: 10.1016/0147-1767(96)00001-6

Kealey, D.J., & Ruben, B.D. (1983). Cross-cultural personnel selection criteria, issues and methods. In: D. Landis & R.W. Brislin (Eds.). *Handbook of Intercultural Training: Issues in theory and design,* Vol 1, (pp. 155—175). New York: Pergamon.

R Khawaja, N. G., & Dempsey, J. (2008). A Comparison of International and Domestic Tertiary Students in Australia. *Australian Journal of Guidance and Counselling, 18*(1), 30–46. DOI: 10.1375/Ajgc.18.1.30

R Kim, K., & Slocum, J. W. (2008). Individual Differences and Expatriate Assignment Effectiveness: The Case of U.S.-Based Korean Expatriates. *Journal of World Business, 43*(1), 109–126. DOI: 10.1016/J.Jwb.2007.10.005

Kim, Y. Y. (2001). *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation*. Thousand Oaks, CA: SAGE.

RM Kim, Y. Y., & McKay-Semmler, K. (2013). Social Engagement and Cross-Cultural Adaptation: An Examination of Direct- and Mediated Interpersonal Communication Activities of Educated Non-Natives in the United States. *International Journal of Intercultural Relations, 37*(1), 99–112. DOI: 10.1016/J.Ijintrel.2012.04.015

RM Kline, S. L., & Liu, F. (2005). The Influence of Comparative Media Use on Acculturation, Acculturative Stress, and Family Relationships of Chinese International Students. *International Journal of Intercultural Relations, 29*(4), 367–390. DOI: 10.1016/J.Ijintrel.2005.07.001

Koenig, A. M., & Eagly, A. H. (2014). Evidence for the social role theory of stereotype content: Observations of groups' roles shape stereotypes. *Journal of Personality and Social Psychology*, *107*(3), 371—392. DOI: 10.1037/a0037215

Kogut, B., & Singh, H. (1988). The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies, 19*(3), 411—432. DOI: 10.1057/palgrave.jib

RM Kraimer, M. L., & Wayne, S. J. (2004). An Examination of Perceived Organizational Support as a Multidimensional Construct in the Context of an Expatriate Assignment. *Journal of Management, 30*(2), 209–237. DOI: 10.1016/J.Jm.2003.01.001

RM Kraimer, M. L., Wayne, S. J., & Jaworski, R. A. A. (2001). Sources of Support and Expatriate Performance: The Mediating Role of Expatriate Adjustment. *Personnel Psychology, 54*(1), 71–99. DOI: 10.1111/J.1744-6570.2001.Tb00086.X

R Krieger, N., Kosheleva, A., Waterman, P. D., Chen, J. T., & Koenen, K. (2011). Racial Discrimination, Psychological Distress, and Self-Rated Health among US-Born and Foreign-Born Black Americans. *American Journal of Public Health, 101*(9), 1704–13. DOI: 10.2105/AJPH.2011.300168

Kuo, B. C. H. (2011). Culture's Consequences on Coping: Theories, Evidence, and Dimensionalities. *Journal of Cross-Cultural Psychology, 42*, 1082–1102. DOI:10.1177/0022022110381126

Kuo, B.C.H. (2014). Coping, Acculturation, and Psychological Adaptation among Migrants: A Theoretical and Empirical Review and Synthesis of the Literature. *Health Psychology & Behavioural Medicine, 2*(1), 16—33. DOI: 10.1080/21642850.2013.843459

RM Lam, B. T. (2007). Impact of Perceived Racial Discrimination and Collective Self-Esteem on Psychological Distress among Vietnamese-American College Student. *American Journal of Orthopsychiatry, 77*(3), 370–376. DOI: 10.1037/0002-9432.77.3.370

RM Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal and Coping.* New York, NY: Springer.

Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., & Spears, R. (2008). Group-level Self-Definition and Self-Investment: A Hierarchical (Multicomponent) Model of Ingroup Identification. *Journal of Personality and Social Psychology*, 95(1), 144–165. DOI:10.1037/0022-3514.95.1.144

RM Lee, E.-J., Lee, L., & Jang, J. (2011). Internet for the Internationals: Effects of Internet Use Motivations on International Students' College Adjustment. *Cyberpsychology, Behavior and Social Networking, 14*(7-8), 433–7. DOI: 10.1089/Cyber.2010.0406

RM Lee, J.-S., Koeske, G. F., & Sales, E. (2004). Social Support Buffering of Acculturative Stress: A Study of Mental Health Symptoms among Korean International Students. *International Journal of Intercultural Relations, 28*(5), 399–414. DOI: 10.1016/J.Ijintrel.2004.08.005

Lee, J.-S., Koeske, G. F., & Sales, E. (2004). Social Support Buffering of Acculturative Stress: A Study of Mental Health Symptoms among Korean International Students. *International Journal of Intercultural Relations, 28*(5), 399–414. DOI:10.1016/j.ijintrel.2004.08.005

RM Lee, J., & Ciftci, A. (2014). Asian International Students' Socio-Cultural Adaptation: Influence of Multicultural Personality, Assertiveness, Academic Self-Efficacy, and Social Support. *International Journal of Intercultural Relations, 38,* 97–105. DOI: 10.1016/J.Ijintrel.2013.08.009

[R] Lee, L.-Y., & Sukoco, B. M. (2008). The Mediating Effects of Expatriate Adjustment and Operational Capability on the Success of Expatriation. *Social Behavior and Personality: An International Journal, 36*(9), 1191–1204. DOI: 10.2224/Sbp.2008.36.9.1191

[R] Lee, L.-Y., & Sukoco, B. M. (2010). The Effects of Cultural Intelligence on Expatriate Performance: The Moderating Effects of International Experience. *International Journal of Human Resource Management, 21*(7), 963–981. DOI: 10.1080/09585191003783397

[RM] Lee, S. A., Park, H. S., & Kim, W. (2009). Gender Differences in International Students' Adjustment. *College Student Journal*, 43, 1217–1227.

[RM] Leong, C.-H. (2007). Predictive Validity of the Multicultural Personality Questionnaire: A Longitudinal Study on the Socio-Psychological Adaptation of Asian Undergraduates Who Took Part in A Study-Abroad Program. *International Journal of Intercultural Relations, 31*(5), 545–559. DOI: 10.1016/J.Ijintrel.2007.01.004

[RM] Leong, C.-H., & Ward, C. (2000). Identity Conflict in Sojourners. *International Journal of Intercultural Relations, 24*(6), 763–776. DOI: 10.1016/S0147-1767(00)00030-4

[R] Leung, C. (2001a). The Psychological Adaptation of Overseas and Migrant Students in Australia. *International Journal of Psychology, 36*(4), 251–259. DOI: 10.1080/00207590143000018

Leung, C. (2001b). The sociocultural and psychological adaptation of Chinese migrant adolescents in Australia and Canada. *International Journal of Psychology*, *36*(1), 8-19. DOI: 10.1080/00207590042000047

Lewis, G. (2011). Saving Mothers' Lives: Reviewing Maternal Deaths to Make Motherhood Safer, 2006–2008. The Eighth Report of the Confidential Enquiries into Maternal Deaths in the United Kingdom. *BJOG,118*(Suppl. 1), 1–205.

Li, A., & Gasser, M. B. (2005). Predicting Asian International Students' Sociocultural Adjustment: A Test of Two Mediation Models. *International Journal of Intercultural Relations, 29*(5), 561–576. DOI: 10.1016/j.ijintrel.2005.06.003

RM Li, A., & Gasser, M. B. (2005). Predicting Asian International Students' Sociocultural Adjustment: A Test of Two Mediation Models. *International Journal of Intercultural Relations, 29*(5), 561–576. DOI: 10.1016/J.Ijintrel.2005.06.003

RM Lian, Y., & Tsang, K. K. (2010). The Impacts of Acculturation Strategies and Social Support on the Cross-Cultural Adaptation of Mainland Chinese Students in Hong Kong. *Educational Research Journal, 25*(1), 82–102.

RM Liebkind, K., & Jasinskaja-Lahti, I. (2000). The Influence of Experiences of Discrimination on Psychological Stress: A Comparison of Seven Immigrant Groups. *Journal of Community & Applied Social Psychology, 10*(1), 1–16. DOI: 10.1002/(SICI)1099-1298(200001/02)10:1<1::AID-CASP521>3.0.CO;2-5

RM Liebkind, K., Jasinskaja-Lahti, I., & Solheim, E. (2004). Cultural Identity, Perceived Discrimination, and Parental Support as Determinants of Immigrants' School Adjustments: Vietnamese Youth in Finland. *Journal of Adolescent Research, 19*(6), 635–656. DOI: 10.1177/0743558404269279

RM Lin, E.-Y. (2008). Family and Social Influences on Identity Conflict in Overseas Chinese. *International Journal of Intercultural Relations, 32*(2), 130–141. DOI: 10.1016/J.Ijintrel.2007.09.005

RM Lin, J.-H., Peng, W., Kim, M., Kim, S. Y., & Larose, R. (2011). Social Networking and Adjustments among International Students. *New Media & Society, 14*(3), 421–440. DOI: 10.1177/1461444811418627

Lindert, J., Schouler-Ocak, M., Heinz, A., & Priebe, S. (2008). Mental Health, Health Care Utilisation of Migrants in Europe. *European Psychiatry, 23*, 14—20. DOI: 10.1016/S0924-9338(08)70057-9

Lints, T. (2010). The essentials of defining adaptation. In: *Proceedings of the 4th Annual Systems Conference of the IEEE, 5-8 April 2010* (pp. 113—116). San Diego, CA: IEEE.

Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Thousand Oaks, CA: Sage.

Liu, C., Meeuwesen, L., van Wesel, F., & Ingleby, D. (2015). Why do Ethnic Chinese in the Netherlands Underutilize Mental Health Care Services? Evidence from a Qualitative Study. *Transcultural Psychiatry*, 52(3), 331. DOI:10.1177/1363461514557887

RM Liu, X., & Shaffer, M. A. (2005). An Investigation of Expatriate Adjustment and Performance A Social Capital Perspective. *International Journal of Cross Cultural Management, 5*(3), 235–254. DOI: 10.1017/CBO9781107415324.004

Mackie, D. M., Hamilton, D. L., Susskind, J., & Rosselli, F. (1996). Social Psychological Foundations of Stereotype Formation. In C.N. MaCrae, C. Stangor & M. Hewstone (Eds.). *Stereotypes and Stereotyping (*pp. 41—78). London: The Guilford Press,

Madon, S., Willard, J., Guyll, M., & Scherr, K. C. (2011). Self-fulfilling prophecies: Mechanisms, power, and links to social problems. *Social and Personality Psychology Compass*, *5*(8), 578—590. DOI: 10.1111/j.1751-9004.2011.00375.x

RM Mak, A. S., & Nesdale, D. (2001). Migrant Distress: The Role of Perceived Racial Discrimination and Coping Resources1. *Journal of Applied Social Psychology, 31*, 2632–2647. DOI: 10.1111/J.1559-1816.2001.Tb00194.X

Mak, A. S., Brown, P. M., & Wadey, D. (2014). Contact and attitudes toward international students in Australia: Intergroup anxiety and intercultural communication emotions as mediators. *Journal of Cross-Cultural Psychology, 45*(3), 491—504. DOI: 10.1177/0022022113509883

RM Martínez García, M. F., García Ramírez, M., & Maya Jariego, I. (2002). Social Support and Locus of Control as Predictors of Psychological Well-Being in Moroccan and Peruvian Immigrant Women in Spain. *International Journal of Intercultural Relations, 26*(3), 287–310. DOI: 10.1016/S0147-1767(02)00005-6

Martinez, C. R. (2006). Effects of Differential Family Acculturation on Latino Adolescent Substance Use. *Family Relations, 55*(3), 306—317. DOI: 10.1111/j.1741-3729.2006.00404.x

Masgoret, A. M., & Ward, C. (2006). Culture learning approach to acculturation. In D.L. Sam & J.W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 58—77). Cambridge University Press.

RM Masgoret, A.-M. (2006). Examining the Role of Language Attitudes and Motivation on the Sociocultural Adjustment and the Job Performance of Sojourners in Spain. *International Journal of Intercultural Relations, 30*(3), 311–331. DOI: 10.1016/J.Ijintrel.2005.08.004

RM McGarty, C., Yzerbyt, V. Y., & Spears, R. (Eds.). (2002). *Stereotypes as explanations: The formation of meaningful beliefs about social groups*. Cambridge University Press.

RM McGinley, J. (2008). Expatriate Adjustment within a Social Context: Examination of a Sample in Russia. *Journal of Social, Evolutionary, and Cultural Psychology, 2*(2), 56–68. DOI: 10.1037/h0099355

McIntyre, K., Paolini, S., & Hewstone, M. (2016). Changing people's views of outgroups through individual-to-group generalisation: Meta-analytic reviews and theoretical considerations. *European Review of Social Psychology*, *27*(1), 63—115. DOI: 10.1080/10463283.2016.1201893

RM Mesch, G. S., Turjeman, H., & Fishman, G. (2007). Perceived Discrimination and the Well-Being of Immigrant Adolescents. *Journal of Youth and Adolescence, 37*(5), 592–604. DOI: 10.1007/S10964-007-9210-6

Meyer, I. H. (2003). Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. *Psychological Bulletin, 129*(5), 674–697. DOI:10.1037/0033-2909.129.5.674

Mike, M. (2003). The face of tomorrow. Retrieved from http://www.faceoftomorrow.com

RM Miller, M. J., Kim, J., & Benet-Martínez, V. (2011). Validating the Riverside Acculturation Stress Inventory with Asian Americans. *Psychological Assessment, 23*(2), 300–10. DOI: 10.1037/A0021589

RM Misra, R., Crist, M., & Burant, C. J. (2003). Relationships among Life Stress, Social Support, Academic Stressors, and Reactions to Stressors of International Students in the United States. *International Journal of Stress Management, 10*(2), 137–157. DOI: 10.1037/1072-5245.10.2.137

RM Miyamoto, Y., & Kuhlman, N. (2001). Ameliorating Culture Shock in Japanese Expatriate Children in the US. *International Journal of Intercultural Relations, 25*(1), 21–40. DOI: 10.1016/S0147-1767(00)00040-7

RM Mohr, A. T., & Klein, S. (2004). Exploring the Adjustment of American Expatriate Spouses in Germany. *International Journal of Human Resource Management, 15*(7), 1189–1206. DOI: 10.1080/0958519042000238400

Mol, S.T., Born, M.P., & van der Molen, H.T. (2005). Developing criteria for expatriate effectiveness: Time to jump off the adjustment bandwagon. *International Journal of Intercultural Relations, 29*(3), 339–353. DOI: 10.1016/j.ijintrel.2005.05.004

M Moore, T.M. (2009). *The Sojourner's Truth: Exploring Bicultural Identity as a Predictor of Assignment Success in American Expatriates* (Unpublished doctoral dissertation). North Carolina State University, Raleigh (USA).

RM Nakash, O., Nagar, M., Shoshani, A., Zubida, H., & Harper, R. A. (2012). The Effect of Acculturation and Discrimination on Mental Health Symptoms and Risk Behaviors among Adolescent Migrants in Israel. *Cultural Diversity & Ethnic Minority Psychology, 18*(3), 228–38. DOI: 10.1037/A0027659

RM Neto, F. & Barros, J. (2000). Predictors of Loneliness among Adolescents from Portuguese Immigrant Families in Switzerland. *Social Behavior and Personality, 2*(28), 193–206. DOI: 10.2224/sbp.2000.28.2.193

RM Ng, T. K., Tsang, K. K., & Lian, Y. (2013). Acculturation Strategies, Social Support, and Cross-Cultural Adaptation: A Mediation Analysis. *Asia Pacific Education Review, 14*(4), 593–601. DOI: 10.1007/S12564-013-9285-6

Nguyen, A. M. D., & Benet-Martínez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology*, *44*(1), 122—159. DOI: 10.1177/0022022111435097

RM Niehoff, B. P., & Maciocha, A. (2008). An Initial Exploration of the Cultural Adaption and Motivations of Immigrant Workers in Ireland. *Irish Academy of Management Journal, 29*(1), 19–44.

RM Nilsson, J. E., Butler, J., Shouse, S., & Joshi, C. (2008). The Relationships among Perfectionism, Acculturation, and Stress in Asian International Students. *Journal of College Counseling, 11*(2), 147-158. DOI: 10.1002/j.2161-1882.2008.tb00031.x

RM Noh, S., & Kaspar, V. (2003). Perceived Discrimination and Depression: Moderating Effects of Coping, Acculturation, and Ethnic Support. *American Journal of Public Health, 93*(2), 232–238. DOI: 10.2105/AJPH.93.2.232

R Oh, J.-H. (2011). Immigration, Cultural Adjustment, and Work Values : The Case of Korean Nail Care Workers in New York. *Development and Society, 40*(2), 261–288.

RM Olaniran, B. A. (1993). International Students' Network Patterns and Cultural Stress: What Really Counts. *Communication Research Reports, 10*(1), 69–83. DOI: 10.1080/08824099309359919

RM Ong, A. S. J., & Ward, C. (2005). The Construction and Validation of a Social Support Measure for Sojourners: The Index of Sojourner Social Support (ISSS) Scale. *Journal of Cross-Cultural Psychology, 36*(6), 637–661. DOI: 10.1177/0022022105280508

RM Oppedal, B. (2011). The Role of Social Support in the Association Between Perceived Discrimination and Mental Health among Young Immigrants in Norway. *International Journal of Developmental Sciences, 5*, 85–99. DOI: 10.3233/DEV-2011-11076

RM Osman-Gani, A. M., & Rockstuhl, T. (2009). Cross-Cultural Training, Expatriate Self-Efficacy, and Adjustments to Overseas Assignments: An Empirical Investigation of Managers in Asia. *International Journal of Intercultural Relations, 33*(4), 277–290. DOI: 10.1016/J.Ijintrel.2009.02.003

Outten, H.R., Schmitt, M.T., Garcia, D.M., & Branscombe, N.R. (2009). Coping Options: Missing Links between Minority Group Identification and Psychological Well-Being. *Applied Psychology, 58*(1), 146–170. DOI: 10.1111/j.1464-0597.2008.00386.x

RM Palthe, J. (2004). The Relative Importance of Antecedents to Cross-Cultural Adjustment: Implications for Managing a Global Workforce. *International Journal of Intercultural Relations, 28*(1), 37–59. DOI: 10.1016/J.Ijintrel.2003.12.004

RM Pan, J.-Y. (2011). A Resilience-Based and Meaning-Oriented Model of Acculturation: A Sample of Mainland Chinese Postgraduate Students in Hong Kong. *International Journal of Intercultural Relations, 35*(5), 592–603. DOI: 10.1016/J.Ijintrel.2011.02.009

RM Pan, J.-Y., Wong, D. F. K., Joubert, L., & Chan, C. L. W. (2008). The Protective Function of Meaning of Life on Life Satisfaction among Chinese Students in Australia and Hong Kong: A Cross-Cultural Comparative Study. *Journal of American College Health, 57*(2), 221–231. DOI: 10.3200/JACH.57.2.221-232

RM Pantelidou, S., & Craig, T. K. J. (2006). Culture Shock and Social Support: A Survey in Greek Migrant Students. *Social Psychiatry and Psychiatric Epidemiology, 41*(10), 777–81. DOI: 10.1007/S00127-006-0096-5

Paolini, S., Crisp, R. J., & McIntyre, K. (2009). Accountability moderates member-to-group generalization: Testing a dual process model of stereotype change. *Journal of Experimental Social Psychology*, *45*(4), 676—685. DOI: 10.1016/j.jesp.2009.03.005

RM Park, H.-S., & Rubin, A. (2012). The Mediating Role of Acculturative Stress in the Relationship between Acculturation Level and Depression among Korean Immigrants in the U.S. *International Journal of Intercultural Relations, 36*(5), 611–623. DOI: 10.1016/J.Ijintrel.2012.04.008

RM Pedersen, E. R., Neighbors, C., Larimer, M. E., & Lee, C. M. (2011). Measuring Sojourner Adjustment among American Students Studying Abroad. *International Journal of Intercultural Relations, 35*(6), 881–889. DOI: 10.1016/J.Ijintrel.2011.06.003

RM Peltokorpi, V. (2008). Cross-Cultural Adjustment of Expatriates in Japan. *International Journal of Human Resource Management, 19*(9), 1588–1606. DOI: 10.1080/09585190802294903

RM Perrucci, R., & Hu, H. (1995). Satisfaction with Social and Educational Experiences among International Graduate Students. *Research in Higher Education, 36*(4), 491–508. DOI: 10.1007/BF02207908

Peterson, R. A., & Brown, S. P. (2005). On the use of beta coefficients in meta-analysis. *Journal of Applied Psychology, 90*(1), 175-181. DOI: 10.1037/0021-9010.90.1.175

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of personality and social psychology*, *90*(5), 751—783. DOI: 10.1037/0022-3514.90.5.751

Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, *38*(6), 922—934. DOI: 10.1002/ejsp.504

Pettigrew, T. F., Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, *35*(3), 271-280. DOI: 10.1016/j.ijintrel.2011.03.001

Pettigrew, T.F., & Tropp, L. (2000). Does intergroup contact reduce racial and ethnic prejudice throughout the world? In S. Oskamp (Ed.), *Reducing prejudice and discrimination*. Mahwah, NJ: Lawrence Erlbaum.

Phinney, J.S. (1990). Ethnic Identity in Adolescents and Adults: Review of Research. *Psychological Bulletin, 108*, 499–514. DOI: 10.1037/0033-2909.108.3.499

Pinquart, M., & Sörensen, S. (2000). Influences of Socioeconomic Status, Social Network, and Competence on Subjective Well-Being in Later Life: A Meta-Analysis. *Psychology and Aging, 15*(2), 187-224

R Pinto, L. H., Cabral-Cardoso, C., & Werther, W. B. (2012). Adjustment Elusiveness: An Empirical Investigation of the Effects of Cross-Cultural Adjustment on General Assignment Satisfaction and Withdrawal Intentions. *International Journal of Intercultural Relations, 36*(2), 188–199. DOI: 10.1016/J.Ijintrel.2011.06.002

Piontkowski, U., Florack, A., Hoelker, P., & Obdrzalek, P. (2000). Predicting Acculturation Attitudes of Dominant and Non-Dominant Groups. *International Journal of Intercultural Relations, 24*, 1–26. DOI: 10.1016/S0147-1767(99)00020-6

Piontkowski, U., Rohmann, A., & Florack, A. (2002). Concordance of Acculturation Attitudes and Perceived Threat. *Group Processes and Intergroup Relations, 5*(3), 221–232. DOI: 0.1177/1368430202005003003

RM Podsiadlowski, A., Vauclair, C.-M., Spiess, E., & Stroppa, C. (2013). Social Support on International Assignments: The Relevance of Socioemotional Support from Locals. *International Journal of Psychology, 48*(4), 563–73. DOI: 10.1080/00207594.2012.669042

RM Polanco-Roman, L., & Miranda, R. (2013). Culturally Related Stress, Hopelessness, and Vulnerability to Depressive Symptoms and Suicidal Ideation in Emerging Adulthood. *Behavior Therapy, 44*(1), 75–87. DOI: 10.1016/J.Beth.2012.07.002

RM Polek, E., & Schoon, I. (2008). The Sociocultural Adaptation of Polish Brides in the Netherlands: Marital and Occupational Status. *Journal of Comparative Family Studies, 39*(3), 353–370.

RM Polek, E., Wohrle, J., & Van Oudenhoven, J. P. (2009). The Role of Attachment Styles, Perceived Discrimination, and Cultural Distance in Adjustment of German and Eastern European Immigrants in the Netherlands. *Cross-Cultural Research, 44*(1), 60–88. DOI: 10.1177/1069397109352779

RM Poyrazli, S., & Kavanaugh, P. R. (2006). Marital Status, Ethnicity, Academic Achievement, and Adjustment Strains: The Case of Graduate International Students. *College Student Journal, 40*(4), 767–80.

[R] Poyrazli, S., Arbona, C., Bullington, R., & Pisecco, S. (2001). Adjustment Issues of Turkish College Students Studying in the United States. *College Student Journal, 35*(1), 52–62.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurements,* 1, 385-401. DOI: 10.1177/014662167700100306

[RM] Rahman, D., & Rollock, O. (2004). Acculturation, Competence, and Mental Health among South Asian Students in United States. *Journal of Multicultural Counseling and Development, 32*, 130–142. DOI: 10.1002/j.2161-1912.2004.tb00366.x

Raven, J. (2000). The Raven's progressive matrices: change and stability over culture and time. *Cognitive Psychology*, *41*(1), 1-48. DOI: 10.1006/cogp.1999.0735

Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup Threat and Outgroup Attitudes: A Meta-Analytic Review. *Personality and Social Psychology Review, 10*(4), 336–353. DOI:10.1207/s15327957pspr1004_4

[RM] Rienties, B., & Tempelaar, D. (2013). The Role of Cultural Dimensions of International and Dutch Students on Academic and Social Integration and Academic Performance in the Netherlands. *International Journal of Intercultural Relations, 37*(2), 188–201. DOI: 10.1016/J.Ijintrel.2012.11.004

Rohmann, A., Piontkowski, U., & van Randenborgh, A. (2008). When Attitudes Do Not Fit: Discordance of Acculturation Attitudes as an Antecedent of Intergroup Threat. *Personality and Social Psychology Bulletin, 34*(3), 337–352. DOI: 10.1177/0146167207311197

[R] Rosenbusch, K., & Cseh, M. (2012). The Cross-Cultural Adjustment Process of Expatriate Families in A Multinational Organization: A Family System Theory Perspective. *Human Resource Development International, 15*(1), 61–77. DOI: 10.1080/13678868.2011.646895

Rothbart, M. (1981). Memory processes and social beliefs. In D. L. Hamilton (Ed.), *Cognitive processes in stereotyping and intergroup behavior* (pp. 145–182). Hillsdale, NJ: Erlbaum.

[RM] Rousseau, C., Hassan, G., Moreau, N., & Thombs, B. D. (2011). Perceived Discrimination and Its Association with Psychological Distress among Newly Arrived Immigrants Before and After September 11, 2001. *American Journal of Public Health, 101*(5), 909–15. DOI: 10.2105/AJPH.2009.173062

Ryder A, Alden L, Paulhus D, Dere J. (2013). Does Acculturation Predict Interpersonal Adjustment? It Depends on Who You Talk to. *International Journal of Intercultural Relations*, 37(4), 502-506. DOI:10.1016/j.ijintrel.2013.02.002

Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is Acculturation Unidimensional or Bidimensional? A Head-to-Head Comparison in the Prediction of Personality, Self-Identity, and Adjustment. *Journal of Personality and Social Psychology, 79*(1), 49-65. DOI:10.1037/0022-3514.79.1.49

[R] Safdar, S., Calvez, S., & Lewis, J. R. (2012). Multi-Group Analysis of the MIDA Model: Acculturation of Indian and Russian Immigrants to Canada. *International Journal of Intercultural Relations, 36*(2), 200–212. DOI: 10.1016/J.Ijintrel.2011.11.006

[R] Safdar, S., Lay, C., & Struthers, W. (2003). The Process of Acculturation and Basic Goals: Testing A Multidimensional Individual Difference Acculturation Model with Iranian Immigrants in Canada. *Applied Psychology, 52*(4), 555–579. DOI: 10.1111/1464-0597.00151

[RM] Sam, D. L. (2001). Satisfaction with Life among International Students: An Exploratory Study. *Social Indicators Research, 53*, 315–337. DOI: 10.1023/A:1007108614571

[RM] Sam, D. L., & Berry, J. W. (1995). Acculturative Stress among Young Immigrants in Norway. *Scandinavian Journal of* Psychology, 36(1), 10–24. DOI: 10.1111/j.1467-9450.1995.tb00964.x

Sam, D. L., & Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science*, *5*(4), 472—481. DOI: 10.1177/1745691610373075.

Sam, D. L., Vedder, P., Liebkind, K., Neto, F., & Virta, E. (2008). Immigration, acculturation and the paradox of adaptation in Europe. *European Journal of Developmental Psychology*, *5*(2), 138-158. DOI: 10.1080/17405620701563348

Sam, D. L., Vedder, P., Ward, C., & Horenczyk, G. (2006). Psychological and Sociocultural Adaptation of Immigrant Youth. In J. W. Berry, J. S. Phinney, D. L. Sam, & P. Vedder (Eds.), *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts* (pp. 117-141). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

[RM] Schaafsma, J. (2011). Discrimination and Subjective Well-Being: The Moderating Roles of Identification with the Heritage Group and the Host Majority Group. *European Journal of Social Psychology, 41*(June), 786–795. DOI: 10.1002/Ejsp.825

Scherer, K. R. (2013). The nature and dynamics of relevance and valence appraisals: Theoretical advances and recent evidence. *Emotion Review*, *5*(2), 150-162. DOI: 10.1177/1754073912468166

RM Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The Consequences of Perceived Discrimination for Psychological Well-Being: A Meta-Analytic Review. *Psychological Bulletin, 140*(4), 921-949. DOI:10.1037/a0035754

Schmitt, M. T., Spears, R., & Branscombe, N. R. (2003). Constructing a Minority Group Identity out of Shared Rejection: The Case of International Students. *European Journal of Social Psychology, 33*(1), 1–12. DOI:10.1002/ejsp.131

RM Schreier, M. (2013). Qualitative Content Analysis. In: U. Flick (Ed.). *The Sage Handbook of Qualitative Data Analysis*. London: SAGE.

Schulte-Nahring, S. (2018). *Internship report: experience gained running cross-cultural and support interventions at the community organisation AJPAS in Casal da Mira, Amadora from October 2017 to May 2018*. [Unpublished internship report]. ISCTE-IUL, Lisbon, Portugal.

RM Searle, W., & Ward, C. (1990). The Prediction of Psychological and Sociocultural Adjustment during Cross-Cultural Transitions. *International Journal of Intercultural Relations, 14*(4), 449–464. DOI: 10.1016/0147-1767(90)90030-Z

Sellers, R.M., Caldwell, C.H., Schmeelk-Cone, K.H., & Zimmerman, M.A. (2003). Racial Identity, Racial Discrimination, and Psychological Distress among African-American Young Adults. *Journal of Health and Social Behavior, 43*, 302–317. DOI: 10.2307/1519781

RM Selmer, J. (2002). The Chinese Connection? Adjustment of Western vs. Overseas Chinese Expatriate Managers in China. *Journal of Business Research, 55*(1), 41–50. DOI: 10.1016/S0148-2963(00)00132-6

RM Selmer, J. (2005). Is Bigger Better? Size of the Location and Expatriate Adjustment in China. *International Journal of Human Resource Management, 16*(7), 1228–1242. DOI: 10.1080/09585190500144178

RM Selmer, J. (2006). Cultural Novelty and Adjustment: Western Business Expatriates in China. *International Journal of Human Resource Management, 17*(7), 1209–1222. DOI: 10.1080/09585190600756475

RM Selmer, J., & Lauring, J. (2011). Marital Status and Work Outcomes of Self-Initiated Expatriates: Is There a Moderating Effect of Gender? *Cross Cultural Management: An International Journal, 18*(2), 198–213. DOI: 10.1108/13527601111126021

RM Shaffer, M. A., & Harrison, D. A. (1998). Expatriates' Psychological Withdrawal from International Assignments: Work, Non-work, and Family Influences. *Personnel Psychology, 51*(1), 87–118. DOI: 10.1111/J.1744-6570.1998.Tb00717.X

RM Shaffer, M. A., & Harrison, D. A. (2001). Forgotten Partners of International Assignments: Development and Test of a Model of Spouse Adjustment. *Journal of Applied Psychology, 86*(2), 238–254. DOI: 10.1037//0021-9010.86.2.238

Shaffer, M. A., Kraimer, M. L., Chen, Y. P., & Bolino, M. C. (2012). Choices, Challenges, and Career Consequences of Global Work Experiences: A Review and Future Agenda. *Journal of Management, 38*, 1282-1327. DOI: 10.1177/0149206312441834

Sherman, J. W., (1996). Development and mental representation of stereotypes. *Journal of Personality and Social Psychology, 70*, 1126–1141. DOI:10.1037/0022-3514.70.6.1126

Sherman, J. W., Lee, A. Y., Bessenoff, G. R., & Frost, L. A. (1998). Stereotype efficiency reconsidered: Encoding flexibility under cognitive load. *Journal of Personality and Social Psychology*, *75*(3), 589—605. DOI: 10.1037/0022-3514.75.3.589

M Shueh, T. (2007). *Perceived Justice, Ethnic Identity, and International Students' Sociocultural Adaptation* (Unpublished master dissertation). University of Florida, Gainesville (USA).

RM Shupe, E. I. (2007). Clashing Cultures: A Model of International Student Conflict. *Journal of Cross-Cultural Psychology, 38*(6), 750–771. DOI: 10.1177/0022022107308996

Simonsohn, U., Nelson, L. D., & Simmons, J. P. (2014a). P-Curve: A Key to the File-Drawer. *Journal of Experimental Psychology, 143*(2), 534-547. DOI: 10.1037/a0033242

Simonsohn, U., Nelson, L. D., & Simmons, J. P. (2014b). P-Curve and Effect Size: Correcting for Publication Bias Using Only Significant Results. *Perspectives on Psychological Science, 9*(6), 666-681. DOI: 10.1177/1745691614553988

Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2015a). Better P-curves: Making P-curve Analysis More Robust to Errors, Fraud, and Ambitious P-Hacking. A Reply to Ulrich and Miller (2015). *Journal of Experimental Psychology, 144*, 1146-1152. DOI: 10.1037/xge0000104

Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2015b). P-Curve App 4.052. Available at http://www.p-curve.com/app4/

RM Sirin, S. R., Gupta, T., Ryce, P., Katsiaficas, D., Suárez-Orozco, C., & Rogers-Sirin, L. (2013). Understanding the Role of Social Support in Trajectories of Mental Health Symptoms for Immigrant Adolescents. *Journal of Applied Developmental Psychology, 34*(5), 199–207. DOI: 10.1016/J.Appdev.2013.04.004

RM Slonim-Nevo, V., Mirsky, J., Rubinstein, L., & Nauck, B. (2009). The impact of familial and environmental factors on the adjustment of immigrants: A longitudinal study. *Journal of Family Issues, 30*(1), 92–123. DOI: 10.1177/0192513X08324575

RM Smith, C. P. (2000). Content analysis and narrative analysis. In: H.T. Reis & C. M. Judd (Eds.). *Handbook of Research Methods in Social and Personality Psychology* (pp. 313-335). Cambridge, UK: Cambridge University Press.

Smith, R. A., & Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations*, 35(6), 699-713. DOI: 10.1016/j.ijintrel.2011.08.004

Snyder, M., & Miene, P. (1994). On the functions of stereotypes and prejudice. In Zanna, M. P., & Olson, J. M. (Eds). *The psychology of prejudice: The Ontario symposium* (Vol. 7, pp. 33—54). Hillsdale, NJ: Lawrence Erlbaum.

Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology, 35*(9), 656-666. DOI: 10.1037/0022-3514.35.9.656

RM Sonderegger, R., Barrett, P. M., & Creed, P. A. (2004). Models of cultural adjustment for child and adolescent migrants to Australia: internal process and situational factors. *Journal of Child and Family Studies, 13*(3), 357–371. DOI: 10.1023/B:JCFS.0000022040.37116.0e

RM Stahl, G. K., & Caligiuri, P. (2005). The effectiveness of expatriate coping strategies: the moderating role of cultural distance, position level, and time on the international assignment. *Journal of Applied Psychology, 90*(4), 603–615. DOI: 10.1037/0021-9010.90.4.603

R Stefanek, E., Strohmeier, D., Fandrem, H., & Spiel, C. (2012). Depressive Symptoms in Native and Immigrant Adolescents: The Role of Critical Life Events and Daily Hassles. *Anxiety, Stress, and Coping, 25*(2), 201–17. DOI: 10.1080/10615806.2011.605879

Stephan, W. G., & Stephan, C. W. (1996). Predicting Prejudice. *International Journal of Intercultural Relations, 20*(3-4), 409-426. DOI:10.1016/0147-1767(96)00026-0

Stephan, W. G., & Stephan, C.W. (2000). An integrated theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination: The Claremont Symposium on applied social psychology* (pp. 23–45). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Stephan, W. G., Ybarra, O., & Bachman, G. (1999). Prejudice toward Immigrants. *Journal of Applied Social Psychology, 29*(11), 2221–2237. DOI:10.1111/j.1559-1816.1999.tb00107.x

Stroppa, C., & Spieß, E. (2010). Expatriates Social Networks: The Role of Company Size. *International Journal of Human Resource Management, 21*(13), 2306–2322. DOI:10.1080/09585192.2010.516586

Sullivan, S., Schwartz, S. J., Prado, G., Huang, S., Pantin, H., & Szapocznik, J. (2007). A Bidimensional Model of Acculturation for Examining Differences in Family Functioning and Behavior Problems in Hispanic Immigrant Adolescents. *Journal of Early Adolescence, 27*(4), 405-430. DOI: 10.1177/0272431607302939

RM Sümer, S., Poyrazli, S., & Grahame, K. (2008). Predictors of Depression and Anxiety among International Students. *Journal of Counseling & Development, 86*(4), 429–437. DOI: 10.1002/J.1556-6678.2008.Tb00531.X

Suutari, V., & Brewster, C. (2000). Making Their Own Way. International Experience through Self-Initiated Foreign Assignments. *Journal of World Business, 35*(4), 417–436. DOI: 10.1016/S1090-9516(00)00046-8

R Swagler, M. A., & Ellis, M. V. (2003). Crossing the Distance: Adjustment of Taiwanese Graduate Students in the United States. *Journal of Counseling Psychology, 50*(4), 420–437. DOI: 10.1037/0022-0167.50.4.420

RM Swami, V. (2009). Predictors of Sociocultural Adjustment among Sojourning Malaysian Students in Britain. *International Journal of Psychology, 44*(4), 266–73. DOI: 10.1080/00207590801888745

RM Swami, V., Arteche, A., Chamorro-Premuzic, T., & Furnham, A. (2010). Sociocultural Adjustment among Sojourning Malaysian Students in Britain: A Replication and Path Analytic Extension. *Social Psychiatry and Psychiatric Epidemiology, 45*(1), 57–65. DOI: 10.1007/S00127-009-0042-4

Symons, D. (1992). On the use and misuse of Darwinism in the study of human behavior. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 137-159). New York, NY: Oxford University Press.

M Szabo, A., & Ward, C. (2014). Unpublished dataset. CACR, Victoria University, Wellington (New Zealand).

RM Tajfel, H. & Turner, J. C. (1986). The social identity theory of intergroup behavior. In W. G. Austin & S. Worchel (Eds.), *Psychology of Intergroup Relations* (pp. 7—24). Chicago: Nelson-Hall.

RM Takeuchi, R., Lepak, D. P., Marinova, S. V, & Yun, S. (2007). Nonlinear Influences of Stressors on General Adjustment: The Case of Japanese Expatriates and Their Spouses. *Journal of International Business Studies, 38*(6), 928–943. DOI: 10.1057/Palgrave.Jibs.8400298

RM Takeuchi, R., Yun, S., & Russell, J. E. a. (2002). Antecedents and consequences of the perceived adjustment of Japanese expatriates in the USA. *The International Journal of Human Resource Management, 13*(8), 1224–1244. DOI: 10.1080/09585190210149493

R Takeuchi, R., Yun, S., & Tesluk, P. E. (2002). An Examination of Crossover and Spillover Effects of Spousal and Expatriate Cross-Cultural Adjustment on Expatriate Outcomes. *Journal of Applied Psychology, 87*(4), 655–666. DOI:10.1037//0021-9010.87.4.655

Taylor, S. E. (1981). A categorization approach to stereotyping. In D. L. Hamilton (Ed.), Cognitive processes in stereotyping and intergroup behavior (pp. 145–182). Hillsdale, NJ: Erlbaum.

Taylor, S. E. (2011). Social Support: A Review. In H. S. Friedman, H. S. Friedman (Eds.), *The Oxford handbook of health psychology* (pp. 189-214). New York, NY: Oxford University Press.

RM Terry, D. J., Pelly, R. N., Lalonde, R. N., & Smith, J. R. (2006). Predictors of Cultural Adjustment: Intergroup Status Relations and Boundary Permeability. *Group Processes & Intergroup Relations, 9*(2), 249–264. DOI: 10.1177/1368430206062080

Thoits, P. A. (2011). Mechanisms Linking Social Ties and Support to Physical and Mental Health. *Journal of Health and Social Behavior, 52*(2) 145–161. DOI: 10.1177/0022146510395592

RM Tonsing, K. N. (2013). Predictors of Psychological Adaptation of South Asian Immigrants in Hong Kong. *International Journal of Intercultural Relations, 37*(2), 238–248. DOI: 10.1016/J.Ijintrel.2013.01.002

Tonsing, K. N. (2013). Predictors of Psychological Adaptation of South Asian Immigrants in Hong Kong. *International Journal of Intercultural Relations, 37*(2), 238–248. DOI:10.1016/j.ijintrel.2013.01.002

RM Torres, L., Driscoll, M. W., & Voell, M. (2013). Discrimination, Acculturation, Acculturative Stress, and Latino Psychological Distress: A Moderated Mediational Model. *Cultural Diversity & Ethnic Minority Psychology, 1*(18), 17–25. DOI: 10.1037/A0026710

RM Toyokawa, T., & Toyokawa, N. (2002). Extracurricular Activities and the Adjustment of Asian International Students: A Study of Japanese Students. *International Journal of Intercultural Relations, 26*(4), 363–379. DOI: 10.1016/S0147-1767(02)00010-X

RM Trice, A. G. (2004). Mixing It Up: International Graduate Students' Social Interactions with American Students. *Journal of College Student Development, 45*(6), 671–687. DOI: 10.1353/Csd.2004.0074

RM Tsang, E. W. (2001). Adjustment of Mainland Chinese Academics and Students to Singapore. *International Journal of Intercultural Relations, 25*(4), 347–372. DOI: 10.1016/S0147-1767(01)00010-4

Tsang, E. W. (2001). Adjustment of Mainland Chinese Academics and Students To Singapore. *International Journal of Intercultural Relations, 25*(4), 347–372. DOI:10.1016/S0147-1767(01)00010-4

RM Tummala-Narra, P., & Claudius, M. (2013). Perceived Discrimination and Depressive Symptoms among Immigrant-Origin Adolescents. *Cultural Diversity & Ethnic Minority Psychology, 19*(3), 257–69. DOI: 10.1037/A0032960

RM Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the Social Group: A self-categorization Theory*. New York: Blackwell.

Umberson, D., Chen, M. D., House, J. S., Hopkins, K., & Slaten, E. (1996). The Effect of Social Relationships on Psychological Well-Being: Are Men and Women Really So Different?. *American Sociological Review*, *61*(5), 837-857. DOI: 10.2307/2096456

UNESCO (2014). *Global Flow of Tertiary-Level Students*. Retrieved 05/10/2014 from http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.asp

United Nations, Department of Economic and Social Affairs, Population Division (2017). International Migration Report 2017: Highlights (ST/ESA/SER.A/404). New York: United Nations.

RM Upvall, M. J. (1990). A Model of Uprooting for International Students. *Western Journal of Nursing Research, 12*(1), 95–107. DOI: 10.1177/019394599001200108

[R] Uskul, A. K., & Greenglass, E. (2005). Psychological Wellbeing in a Turkish-Canadian Sample. *Anxiety, Stress & Coping, 18*(3), 269–278. DOI: 10.1080/10615800500205983

[R] Usunier, J.-C. (1998). Oral Pleasure and Expatriate Satisfaction: An Empirical Approach. *International Business Review, 7*(1), 89–110. DOI: 10.1016/S0969-5931(97)00053-X

[RM] Van der Bank, M., & Rothmann, S. (2006). Correlates of Expatriates' Cross-Cultural Adjustment. *Management Dynamics, 15*(4), 29–39.

Van der Zee, K. I., & Van Oudenhoven, J. P. (2014). Personality and Multicultural Effectiveness. In V. Benet-Martínez, Y. Hong, V. Benet-Martínez, Y. Hong (Eds.), *The Oxford Handbook of Multicultural Identity* (pp. 255-275). New York, NY: Oxford University Press.

[RM] Van der Zee, K. I., Ali, A. J., & Haaksma, I. (2007). Determinants of Effective Coping with Cultural Transition among Expatriate Children and Adolescents. *Anxiety, Stress, and Coping, 20*(1), 25–45. DOI: 10.1080/10615800601032781

[RM] Van der Zee, K. I., Ali, A. J., & Salomé, E. (2005). Role Interference and Subjective Well-Being among Expatriate Families. *European Journal of Work and Organizational Psychology, 14*(3), 239–262. DOI: 10.1080/13594320500146250

Van der Zee, K., & van Oudenhoven, J. P. (2013). Culture shock or challenge? The role of personality as a determinant of intercultural competence. *Journal of Cross-Cultural Psychology*, *44*(6), 928—940. DOI: 10.1177/0022022113493138

Van der Zee, K.I., Atsma, N., & Brodbeck, F. (2004). The Influence of Social Identity and Personality on Outcomes of Cultural Diversity in Teams. *Journal of Cross-Cultural Psychology, 35*(3), 283–303. DOI:10.1177/0022022104264123

[R] Van Erp, K. J. P. M., Giebels, E., Van der Zee, K. I., & Van Duijn, M. A J. (2011). Let It Be: Expatriate Couples' Adjustment and the Upside of Avoiding Conflicts. *Anxiety, Stress, and Coping, 24*(5), 539–60. DOI: 10.1080/10615806.2011.571768

[R] Van Erp, K. J. P. M., Giebels, E., Van der Zee, K. I., & Van Duijn, M. A. J. (2011). Expatriate Adjustment: The Role of Justice and Conflict in Intimate Relationships. *Personal Relationships, 18*(1), 58–78. DOI: 10.1111/J.1475-6811.2010.01312.X

[RM] Van Erp, K. J. P. M., Van der Zee, K. I., Giebels, E., & Van Duijn, M. A. J. (2013). Lean on Me: The Importance of One's Own and Partner's Intercultural Personality for Expatriate's and Expatriate Spouse's Successful Adjustment Abroad. *European Journal of Work and Organizational Psychology, 23*(5), 706-728. DOI: 10.1080/1359432X.2013.816088

Van Oudenhoven, J. P., & Benet-Martínez, V. (2015). In search of a cultural home: From acculturation to frame-switching and intercultural competencies. *International Journal of Intercultural Relations*, *46*, 47—54. DOI: 10.1016/j.ijintrel.2015.03.022

[R] Van Oudenhoven, J. P., & Van der Zee, K. I. (2002). Predicting Multicultural Effectiveness of International Students: The Multicultural Personality Questionnaire. *International Journal of Intercultural Relations, 26*(6), 679–694. DOI: 10.1016/S0147-1767(02)00041-X

[RM] Van Oudenhoven, J. P., Mol, S., & Van der Zee, K. I. (2003). Study of the Adjustment of Western Expatriates in Taiwan ROC with the Multicultural Personality Questionnaire. *Asian Journal of Social Psychology, 6*(2), 159–170. DOI: 10.1111/1467-839X.T01-1-00018

RM Van Vianen, A. E. M., De Pater, I. E., Kristof-Brown, A. L., & Johnson, E. C. (2013). Fitting in: Surface- and Deep-Level Cultural Differences and Expatriates' Adjustment Settings. *Academy of Management Journal, 47*(5), 697-709. DOI: 10.5465/20159612

M VanderWielen, J.J. (2001). *Cognitive Appraisal, Coping, and the Psychological and Sociocultural Adjustment of Expatriates* (Unpublished doctoral dissertation). Alliant International University, San Diego (USA).

M Vang, C. (2009). *The Relationship Among Acculturation, Cultural Adjustment Difficulties, and Psychological Symptoms Among Hmong Americans* (Unpublished doctoral dissertation). University of Wisconsin-Milwaukee, Milwaukee (USA).

Vargas-Silva, C. (2012). *EU Migrants in other EU Countries: An Analysis of Bilateral Migrant Stocks. Migration Observatory Briefing.* Retrieved on September 10th, 2014 from: http://www.migrationobservatory.ox.ac.uk/briefings/eu-migrants-other-eu-countries-analysis-bilateral-migrant-stocks

Vedder, P., & Virta, E. (2005). Language, ethnic identity, and the adaptation of Turkish immigrant youth in the Netherlands and Sweden. *International journal of intercultural relations*, *29*(3), 317—337. DOI: 10.1177/0743558405274853

RM Verkuyten, M., & Nekuee, S. (1999). Subjective Well-Being, Discrimination and Cultural Conflict: Iranians Living in the Netherlands. *Social Indicators Research*, *47*, 281–306. DOI: 10.1023/A:1006970410593

M Vohra, N. (1995). *Life Satisfaction of Indian Immigrants in Canada* (Unpublished doctoral dissertation). University of Manitoba, Winnipeg (Canada).

RM Wang, K. T., Heppner, P. P., Fu, C., Zhao, R., Li, F., & Chuang, C. (2012). Profiles of Acculturative Adjustment Patterns among Chinese International Students. *Journal of Counseling Psychology, 59*(3), 424–436. DOI:10.1037/a0028532

RM Wang, M., & Takeuchi, R. (2007). The Role of Goal Orientation during Expatriation: A Cross-Sectional and Longitudinal Investigation. *Journal of Applied Psychology, 92*(5), 1437–1445. DOI: 10.1037/0021-9010.92.5.1437

RM Wang, X., & Kanungo, R. N. (2004). Nationality, Social Network and Psychological Well-Being: Expatriates in China. *International Journal of Human Resource Management, 15*(4-5), 775–793. DOI: 10.1080/0958519042000192942

RM Wang, X., & Nayir, D. Z. (2006). How and When Is Social Networking Important? Comparing European Expatriate Adjustment in China and Turkey. *Journal of International Management, 12*(4), 449–472. DOI: 10.1016/J.Intman.2006.02.014

Ward, C. (2004). Psychological theories of culture contact and their implications for intercultural training and interventions. In D. Landis, J. M. Bennett, & M. J. Bennett (Eds.), *Handbook of Intercultural Training* (3rd ed., pp. 185-216). Thousand Oaks, CA: Sage.

Ward, C., & Geeraert, N. (2016). Advancing Acculturation Theory and Research: The Acculturation Process in Its Ecological Context. *Current Opinion in Psychology, 8*, 98-104. DOI:10.1016/j.copsyc.2015.09.021.

RM Ward, C., & Kennedy, A. (1992). Locus of Control, Mood Disturbance, and Social Difficulty During Cross-Cultural Transitions. *International Journal of Intercultural Relations, 16*(2), 175–194. DOI: 10.1016/0147-1767(92)90017-O

RM Ward, C., & Kennedy, A. (1993a). Psychological and Socio-Cultural Adjustment during Cross-Cultural Transitions: A Comparison of Secondary Students Overseas and at Home. *International Journal of Psychology, 28*(2), 129–147. DOI: 10.1080/00207599308247181

RM Ward, C., & Kennedy, A. (1993b). Where's the "Culture" in Cross-Cultural Transition?: Comparative Studies of Sojourner Adjustment. *Journal of Cross-Cultural Psychology, 24*(2), 221–249. DOI: 10.1177/0022022193242006

RM Ward, C., & Kennedy, A. (1999). The Measurement of Sociocultural Adaptation. *International Journal of Intercultural Relations, 23,* 659–677. DOI: 10.1016/S0147-1767(99)00014-0

RM Ward, C., & Rana-Deuba, A. (2000). Home and Host Culture Influences on Sojourner Adjustment. *International Journal of Intercultural Relations, 24*(3), 291–306. DOI: 10.1016/S0147-1767(00)00002-X

RM Ward, C., & Searle, W. (1991). The Impact of Value Discrepancies and Cultural Identity on Psychological and Sociocultural Adjustment of Sojourners. *International Journal of Intercultural Relations, 15*(2), 209–224. DOI: 10.1016/0147-1767(91)90030-K

Ward, C., Bochner, S., & Furnham, A. (2001). *The Psychology of Culture Shock*. Philadelphia: Routledge.

Ward, C., Fox, S., Wilson, J., Stuart, J., & Kus, L. (2010). Contextual Influences on Acculturation Processes: The Roles of Family, Community and Society. *Psychological Studies*, *55*(1), 26-34. DOI: 10.1007/s12646-010-0003-8

RM Ward, C., Stuart, J., & Kus, L. (2011). The Construction and Validation of a Measure of Ethno-Cultural Identity Conflict. *Journal of Personality Assessment, 93*(5), 462–73. DOI: 10.1080/00223891.2011.558872

Ward, C., Stuart, J., & Kus, L. (2011). The Construction and Validation of a Measure of Ethno-Cultural Identity Conflict. *Journal of Personality Assessment, 93*(5), 462–73. DOI:10.1080/00223891.2011.558872

RM Waxin, M. F. (2004). Expatriates' Interaction Adjustment: The Direct and Moderator Effects of Culture of Origin. *International Journal of Intercultural Relations, 28*(1), 61–79. DOI: 10.1016/J.Ijintrel.2003.12.006

RM Wei, M., Ku, T.-Y., Russell, D. W., Mallinckrodt, B., & Liao, K. Y.-H. (2008). Moderating Effects of Three Coping Strategies and Self-Esteem on Perceived Discrimination and Depressive Symptoms: A Minority Stress Model for Asian International Students. *Journal of Counseling Psychology, 55*(4), 451–62. DOI: 10.1037/A0012511

RM Wei, M., Tsai, P.-C., Chao, R. C.-L., Du, Y., & Lin, S.-P. (2012). Advisory Working Alliance, Perceived English Proficiency, and Acculturative Stress. *Journal of Counseling Psychology, 59*(3), 437–48. DOI: 10.1037/A0028617

RM Wei, M., Wang, K. T., Heppner, P. P., & Du, Y. (2012). Ethnic and Mainstream Social Connectedness, Perceived Racial Discrimination, and Posttraumatic Stress Symptoms. *Journal of Counseling Psychology, 59*(3), 486–93. DOI: 10.1037/A0028000

Wenzel, M., Mummendey, A., & Waldzus, S. (2007). Superordinate Identities and Intergroup Conflict: The Ingroup Projection Model. *European Review of Social Psychology, 18*(1), 331-372. DOI: 10.1080/10463280701728302

West-Eberhard, M. J. (2003). *Developmental plasticity and evolution*. New York, NY: Oxford University Press.

Westfall, J., Kenny, D. A., & Judd, C. M. (2014). Statistical power and optimal design in experiments in which samples of participants respond to samples of stimuli. *Journal of Experimental Psychology: General*, *143*(5), 2020—2045. DOI: 10.1037/xge0000014

Wieviorka, M. (2018). Europe Facing Evil: Xenophobia, Racism, Anti-Semitism and Terrorism. In: M. Castells (Ed.). *Europe's Crises*, (pp. 205 – 223). Cambridge, UK: Politly Press.

Wilder, D. A. (1993). The role of anxiety in facilitating stereotypic judgments of outgroup behavior. In D.M. Mackie & D.L. Hamilton (Eds.)., *Affect, cognition and stereotyping* (pp. 87—109). Academic Press/Elsevier.

Williams, K. (2003). Has the Future of Marriage Arrived? A Contemporary Examination of Gender, Marriage, and Psychological Well-Being. *Journal of Health and Social Behavior*, *44*(4), 470—487. DOI: 10.2307/1519794

Wilson, D. B. (2008). *Meta-analysis macros for SAS, SPSS, and Stata*. Retrieved, March 17, 2015, from http://mason.gmu.edu/~dwilsonb/ma.html

Wilson, D.B. (2001). *Practical Meta-Analysis Effect Size Calculator.* Retrieved from: http://www.campbellcollaboration.org/escalc/html/EffectSizeCalculator-Home.php

Wilson, J., Ward, C., & Fischer, R. (2013). Beyond Culture Learning Theory: What Can Personality Tell Us About Cultural Competence? *Journal of Cross-Cultural Psychology, 44,* 900—927. DOI: 10.1177/0022022113492889

Wong, G., Ameratunga, S. N., Garrett, N. K., Robinson, E., & Watson, P. D. (2008). Family Influences, Acculturation, and the Prevalence of Tobacco Smoking Among Asian Youth in New Zealand: Findings from a National Survey. *Journal of Adolescent Health, 43*(4), 412—416. DOI: 10.1016/j.jadohealth.2008.02.010

Wright, S. C., & Taylor, D. M. (2007). The Social Psychology of Cultural Diversity: Social Stereotyping, Prejudice, and Discrimination. In: M.A. Hogg & J. Cooper (Eds.). *The SAGE Handbook of Social Psychology* (pp. 361—378). Thousand Oaks: SAGE.

Wright, T. F., Eberhard, J. R., Hobson, E. A., Avery, M. L., & Russello, M. A. (2010). Behavioral flexibility and species invasions: the adaptive flexibility hypothesis. *Ethology Ecology & Evolution*, *22*(4), 393-404. DOI: 10.1080/03949370.2010.505580

RM Wu, E. K. Y., & Mak, W. W. S. (2012). Acculturation Process and Distress: Mediating Roles of Sociocultural Adaptation and Acculturative Stress. *The Counseling Psychologist, 40*(1), 66–92. DOI: 10.1177/0011000011410893

RM Wu, P.-C., & Ang, S. H. (2011). The Impact of Expatriate Supporting Practices and Cultural Intelligence on Cross-Cultural Adjustment and Performance of Expatriates in Singapore. *International Journal of Human Resource Management, 22*(13), 2683–2702. DOI: 10.1080/09585192.2011.599956

RM Yakunina, E. S., Weigold, I. K., Weigold, A., Hercegovac, S., & Elsayed, N. (2013). International Students' Personal and Multicultural Strengths: Reducing Acculturative Stress and Promoting Adjustment. *Journal of Counseling & Development, 91*(2), 216–223. DOI: 10.1002/J.1556-6676.2013.00088.X

RM Yang, B., & Clum, G. A. (1994). Life Stress, Social Support, and Problem-Solving Skills Predictive of Depressive Symptoms, Hopelessness, and Suicide Ideation in an Asian Student Population: A Test of a Model. *Suicide & Life-Threatening Behavior, 24*(2), 127–39. DOI: 10.1111/j.1943-278X.1994.tb00797.x

RM Yang, B., & Clum, G. A. (1995). Measures of Life Stress and Social Support Specific to An Asian Student Population. *Journal of Psychopathology and Behavioral Assessment, 17*(1), 51–67. DOI: 10.1007/BF02229203

RM Yang, R. P.-J., Noels, K. A., & Saumure, K. D. (2006). Multiple Routes to Cross-Cultural Adaptation for International Students: Mapping the Paths between Self-Construals, English Language Confidence, and Adjustment. *International Journal of Intercultural Relations, 30*(4), 487–506. DOI: 10.1016/J.Ijintrel.2005.11.010

RM Ye, J. (2005). Acculturative Stress and Use of the Internet among East Asian International Students in the United States. *Cyberpsychology & Behavior, 8*(2), 154–61. DOI: 10.1089/Cpb.2005.8.154

RM Ye, J. (2006). Traditional and Online Support Networks in the Cross-Cultural Adaptation of Chinese International Students in the United States. *Journal of Computer-Mediated Communication, 11*(3), 863–876. DOI: 10.1111/J.1083-6101.2006.00039.X

RM Ying, Y. W. (1995). Cultural orientation and psychological well-being in Chinese Americans. *American Journal of Community Psychology, 23*(6), 893–911. DOI: 10.1007/BF02507020

RM Ying, Y.-W. (2005). Variation in Acculturative Stressors over Time: A Study of Taiwanese Students in the United States. *International Journal of Intercultural Relations, 29*(1), 59–71. DOI: 10.1016/J.Ijintrel.2005.04.003

RM Ying, Y.-W., & Han, M. (2006). The Contribution of Personality, Acculturative Stressors, and Social Affiliation to Adjustment: A Longitudinal Study of Taiwanese Students in the United States. *International Journal of Intercultural Relations, 30*(5), 623–635. DOI: 10.1016/J.Ijintrel.2006.02.001

RM Ying, Y.-W., & Han, M. (2008). Variation in the Prediction of Cross-Cultural Adjustment by Ethnic Density. *College Student Journal, 42*(4).

RM Ying, Y.-W., & Liese, H. (1991). Emotional Wellbeing of Taiwan Students in the U.S.: An Examination of Pre- to Post-Arrival Differential. *International Journal of Intercultural Relations, 15*(3), 345–366. DOI: 10.1016/0147-1767(91)90007-4

RM Yip, T., Gee, G. C., & Takeuchi, D. T. (2008). Racial Discrimination and Psychological Distress: The Impact of Ethnic Identity and Age among Immigrant and United States-Born Asian Adults. *Developmental Psychology, 44*(3), 787–800. DOI: 10.1037/0012-1649.44.3.787

Yoon, E., Chang, C. T., Kim, S., Clawson, A., Cleary, S. E., Hansen, M., … Gomes, A. (2012). A Meta-Analysis of Acculturation/Enculturation and Mental Health. *Journal of Counseling Psychology, 60*, 1–16. DOI:10.1037/a0030652

RM Yoon, E., Hacker, J., Hewitt, A., Abrams, M., & Cleary, S. (2012). Social Connectedness, Discrimination, and Social Status as Mediators of Acculturation/Enculturation and Well-Being. *Journal of Counseling Psychology, 59*(1), 86–96. DOI: 10.1037/A0025366

RM Yoon, E., Lee, R. M., & Goh, M. (2008). Acculturation, Social Connectedness, and Subjective Well-Being. *Cultural Diversity and Ethnic Minority Psychology, 14*(3), 246–255. DOI: 10.1037/1099-9809.14.3.246

[R] Yu, B., & Shen, H. (2012). Predicting Roles of Linguistic Confidence, Integrative Motivation and Second Language Proficiency on Cross-Cultural Adaptation. *International Journal of Intercultural Relations, 36*(1), 72–82. DOI: 10.1016/J.Ijintrel.2010.12.002

Yzerbyt, V., & Demoulin, S. (2010). Intergroup relations. In Fiske, S. T., Gilbert, D. T., & Lindzey, G. (Eds.). *Handbook of Social Psychology*, *2*, 1024—1083.

Yzerbyt, V., Rocher, S., & Schadron, G. (1997). Stereotypes as explanations: A subjective essentialistic view of group perception. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 20-50). Cambridge, UK: Blackwell.

Zagefka, H., & Brown, R. (2002). The Relationship between Acculturation Strategies, Relative Fit and Intergroup Relations: Immigrant-Majority Relations in Germany. *European Journal of Social Psychology, 32*, 171–188. DOI: 10.1002/ejsp.73

Zagefka, H., Binder, J., & Brown, R. (2010). *Acculturation Attitudes, Fit, Prejudice: Majority and Minority Perspectives in a Longitudinal Three-Nation Study*. Royal Holloway: University of London.

Zhang, J., & Goodson, P. (2011a). Predictors of International Students' Psychosocial Adjustment to Life in the United States: A Systematic Review. *International Journal of Intercultural Relations, 35*(2), 139–162. DOI: 10.1016/j.ijintrel.2010.11.011

[RM] Zhang, J., & Goodson, P. (2011b). Acculturation and Psychosocial Adjustment of Chinese International Students: Examining Mediation and Moderation Effects. *International Journal of Intercultural Relations, 35*(5), 614–627. DOI: 10.1016/J.Ijintrel.2010.11.004

RM Zhang, J., Smith, S., Swisher, M., & Fogarty, K. (2006). Gender Role Disruption and Marital Satisfaction among Wives of Chinese International Students in the United States. *Journal of Comparative Family Studies, 42*(2), 523–542.

Zick, A., Wagner, U., van Dick, R., & Petzel, T. (2001). Acculturation and Prejudice in Germany: Majority and Minority Perspectives. *Journal of Social Issues, 57*(3), 541–558. DOI: 10.1111/0022-4537.00228

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*(1), 30–41. DOI:10.1207/s15327752jpa5201_2

Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 55*(3-4), 610–617. DOI:10.1207/s15327752jpa5503&4_1

RM Zimmermann, S. (1995). Perceptions of Intercultural Communication Competence and International Student Adaptation to an American Campus. *Communication Education, 44*(4), 321–335. DOI: 10.1080/03634529509379022

RM Zlobina, A., Basabe, N., Paez, D., & Furnham, A. (2006). Sociocultural Adjustment of Immigrants: Universal and Group-Specific Predictors. *International Journal of Intercultural Relations, 30*(2), 195–211. DOI: 10.1016/J.Ijintrel.2005.07.0

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