



“The Best Decision of Your Life”: The Relationship Between Multicultural Life Experience and Decision-Making Biases

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Dissertation written under the supervision of Prof. Andrew Hafenbrack

Dissertation submitted in partial fulfilment of requirements for the MSc in Business,
at the Universidade Católica Portuguesa, December 22nd, 2018.

The Relationship Between Multicultural Life Experiences and Decision-Making Biases

Abstract

Title: The Best Decision of Your Life: The Relationship Between Multicultural Life Experiences and Decision-Making Biases

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This dissertation investigates the correlation between various types and phases of foreign experience and several decision-making biases: the status-quo bias, anchoring effect and confirmation bias. Previous research had shown that different types of foreign experience (travelling, currently living abroad and having lived abroad in the past) had distinctive effects on individuals and lead to differences in behavior and cognition. It was hypothesized that this would subdue the negative effects of decision-making biases. The hypotheses were tested by replicating previous studies in the field via an online survey. It was found that foreign experience has no impact on the status-quo bias, either strengthens or weakens the anchoring effect depending on the type of foreign experience, and strengthens the effect of confirmation bias throughout all groups of foreign experience. The conclusion was that foreign experience affects some decision-making biases but to varying degrees and depending on the type of foreign experience. A theoretical frame was built to explain this finding, using previous studies to explain possible causations. This dissertation hypothesizes that cultural adjustment, in a u-,w-shaped experience, are responsible for the differences between the various groups of foreign experience and act as a mediator between the variables. Further studies and methodologies are proposed and outlined to test this hypothesis. The dissertation therefore adds towards the understanding of the effects of foreign experience and found evidence for a connection between cultural identity shifts and adjustments towards cognition and decision-making.

Keywords: Foreign Experience, Decision-Making Biases, Status-Quo Bias, Anchoring Effect, Confirmation Bias, Cultural identification Patterns, Integrative Complexity

Abstrato

Título: A MELHOR DECISÃO DA TUA VIDA: A relação entre experiências de vida multiculturais e tomadas de decisão tendenciosas.

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Esta dissertação investiga a correlação entre vários tipos e fases de experiências no estrangeiro e várias tomadas de decisão tendenciosas/enviesadas: preconceito status-quo, efeito da ancoragem, viés de confirmação. Pesquisas anteriores revelaram que diferentes tipos de experiência no estrangeiro (viajar, viver atualmente no estrangeiro, ou ter vivido além fronteiras no passado) têm efeitos distintos sobre os indivíduos que viveram estas experiências, levando-os a terem diferentes atitudes a nível comportamental e cognitivo. Por este motivo, foi levantada a questão hipotética de estas mesmas experiências reduzirem os efeitos negativos nas tomadas de decisão preconceituosas. As hipóteses foram testadas através da replicação de estudos anteriores através de um inquérito online. Descobriu-se por isso que a experiência estrangeira não tem impacto sobre o preconceito status-quo. Na verdade apenas fortalece ou enfraquece o efeito da ancoragem dependentemente do tipo de experiência no estrangeiro e fortalece o viés de confirmação em todos os grupos que viveram este tipo de experiências. Em suma, as conclusões revelam que a experiência no estrangeiro afeta alguns tipos de tomada de decisão tendenciosa, mas em graus variados e dependendo do tipo de experiência estrangeira. Um quadro teórico foi ainda construído para explicar essa mesma conclusão, utilizando estudos prévios para explicar possíveis causas. Mais se salienta que esta dissertação propõe a hipótese de um ajustamento cultural através de uma experiência moldada do tipo u ou w, que é responsável pelas diferenças dos grupos em estudo, atuando como mediadora das diferentes variáveis. Outros estudos e metodologias foram ainda propostos e delineados para testar esta hipótese. Concluindo, esta tese final de mestrado adiciona uma nova compreensão aos efeitos de experiência no estrangeiro e encontra evidências claras: existe uma conexão entre mudanças de identidade cultural e ajustes na atividade cognitiva e tomadas de decisão.

Palavras-chave: Experiência Estrangeira, Tomadas de Decisão Enviesadas, Preconceito Status-Quo, Efeito da Ancoragem, Viés de Confirmação, Padrões de Identificação Cultural, Complexidade Integrativa

Acknowledgements

I would like to thank Professor Andrew Hafenbrack for the supervision of my dissertation. My research would not have been possible without his guidance, encouragement and advise.

I would also like to thank my parents and family for their unconditional support in all of my global endeavours, despite the thousands of kilometres which usually separate us because of them.

And to all the people I met and friends I made studying for my MSc in Business at Católica in Portugal and GSOM in Russia. Your stories, support and friendships have truly made this multicultural life experience one of the best decisions of my life.

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Introduction

This dissertation focuses on the impact foreign experience in individuals has on various decision making biases. Specifically it researches the impact foreign experience, in the form of extensive travel, expatriation and/or immigration, has on three specific decision making biases: anchoring, status-quo bias as well as confirmation bias. It answers the research question: How do multicultural life experiences, measured in various stages of foreign experience (extensive travel, past experience, current experience), effect personal judgement and decision making, especially regarding widely understood biases like status-quo bias, anchoring, and confirmation bias? In its broadest sense this dissertation in the field of organisational behaviour and management is therefore a connection between two previously unconnected fields of research, connecting both fields through a study testing for correlations between foreign experience on the one side and decision-making biases on the other side.

The first area of research in this dissertation is in general the research on individual differences found in multicultural individuals (Third Culture Kids, expats, returned emigres etc.) compared to the “normal” population. Of particular interest are individuals who have spent a significant amount of time outside their home culture, either as children, students, or adults, and portray characteristics of a multiculturally formed personality. A vast amount of previous research has looked into the individual character traits that are shaped by extensive international exposure. On the extreme end of international exposure are so called “Third Culture Kids”, defined as individuals who have spent a significant part of their developing years outside their parent’s native culture (Pollock & Van Reken, 2009). This exceptional multicultural upbringing has been shown to have significant effects on an individual’s personality as well as character traits; ranging from negative effects like psychological problems of identification and grief cycles (Bushong, 2013), to positive effects like an expanded worldview and understanding of the existence of several perspectives on a given topic (Moore & Barker, 2012), or a statistically significant higher score in open-mindedness and marginally higher score for cultural empathy (Dewaele & van Oudenhoven, 2009). However, not only individuals with the exceptional experiences of Third Culture Kids have been shown to profit from foreign and/or multicultural experiences: Maiworm & Teichler (1996) showed that even brief foreign experiences like exchange semesters during university can have a significant effect on career advancements after graduation. Later studies further advanced this finding by showing that any international exposure benefits managerial and career advancements, regardless of age, education or any other personal background found in respondents (e.g., Herrmann & Datta, 2005; Suutari &

Mäkelä, 2007). Considering these findings it comes to no surprise that subsequent studies found correlations between foreign experience and creativity (Maddux & Galinsky, 2009) or innovation and entrepreneurship (Lu, Hafenbrack, et al., 2017).

The second area of research is a revisit of common decision-making biases which have been researched previously but so far lack a multicultural dimension within their population samples. The decision-making biases of particular interest to the paper are status-quo bias, anchoring, and confirmation bias, which are outlined in further detail within the literature review.

Combining these two areas of academic literature, this dissertation contributes both to the existing literature on decision-making biases as well as the literature on multicultural experiences. It achieves this by adding a multicultural predictor variable to the research done on decision-making biases. In doing so this dissertation simultaneously advances the academic fields in both areas of study.

In order to answer the research question and test the hypotheses, this dissertation is structured into two distinctive parts: Part 1 outlines the current state of the art regarding the academic literature on the three decision making biases (anchoring, status-quo bias, & confirmation bias) as well as the proven effects of foreign experience on individual behavior and decisions in general. It further provides a necessary outlook into the relevance of the research question and larger topic in general to management and human resources aiming to improve decision taking skills inside their organizations. Hypotheses based upon the existing literature are formulated and provide an outline to the subsequent study described in Part 2. Therein the methodology is outlined first, followed by the general descriptive statistics of the study. All three decision-making biases are then correlated to various cultural independent variables, most importantly foreign experience, and investigated for statistically significant correlations. Results are subsequently discussed in line with the existing academic literature as well as limitations outlined and future research recommended. The conclusion returns back to the research question, providing a concise summary of the research conducted for this dissertation.

Part 1

Literature Review: Foreign Experience

As this dissertation is testing for foreign experience as an independent variable affecting decision-making biases, it is important to outline the various forms of foreign experience individuals might have been exposed to as well as to summarize the effects foreign experience can have on someone's personality, behavior, and/or psychological profile. Although the following literature review on the topic does not claim to be exhaustive, it provides an overview of the most important research relevant to study the research question.

Foreign experience comes in a wide array of flavors, all of which have significant effects on the individual gaining it. This dissertation divides foreign experience into three subcategories that are easily identifiable and have shown to have widely differing effects on an individual's experience. They are classified as: extensive travel (e.g. backpacking), currently living abroad, and past foreign experience.

Extensive travel, which often stands in for backpacking in its various forms, is one of the subcategories and has experienced a stark rise in research over the past 30 years. A common definition is that of a *“self-organized pleasure tourist on a multiple destination journey lasting longer than what it usually possible to fit into a cyclical holiday pattern”* (Sorensen, 2003). Backpackers have been shown to prefer budget accommodation, an emphasize on meeting other travelers and participation in informal holiday activities (Pearce, 1990; Slaughter, 2004) and constitute their own social group with a shared narrative (Elsrud, 2001; Potts, 2003; Noy, 2004). The latter finding is especially important for this dissertation as it provides a first justification to regard extensive travelers or backpackers as a distinctive group different both from individuals without foreign experience as well as a distinctive subgroup of individuals with foreign experience. This distinction is justified further in a study by Pearce & Foster that described backpacking as a *“university of travel”* (2007), testing a proving previous research that showed backpacking to develop a wide range of skills: from problem-solving (Gmelch, 1997) to leadership through decision making (Kuh, 1995) and even risk taking (Hunt, 2000). However, it is important to note that extensive traveling does not entail the need to integrate into local culture the same way as permanent or temporary immigration does. Research has shown that travellers are more likely to “pick and choose” advantageous cultural habits, while simultaneously disregarding less convenient traits (Lu, Quoidbach, et al., 2017).

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Currently living abroad as well as past foreign experience are by their nature more similar to each other, as they refer to the same kind of foreign experience with the only differentiation being the time frame. Although individuals in both groups have a lot of commonalities, they also have distinctive differences that justify a division into two separate subgroups.

Foreign experience is not a homogenous experience and individuals have a multitude of motivations and/or reasons to seek out a new life in a different country or culture. While motivations and reasons behind the move can vary, the process of having to adapt and integrate into a different culture is a commonly shared experience. This experience is most prominent in so called “Third-Culture-Kids”, individuals who spend time growing up in a different culture from their home culture, who easily connect to people with a similar background despite coming from different countries and possessing different nationalities (Pollock & Van Reken, 2009). Yet such drastic foreign experiences are not necessary to develop characteristic traits different from people without foreign experience. Generally, and in addition to the cultural experiences backpackers have on their travels, immigrants and/or expatriates experience a so called “u-curve theory” (UCT) of cross-cultural adjustment (Gullahorn & Gullahorn, 1963). UCT generally encompasses four distinctive stages, of which only the first two could also be experienced by travellers: A honeymoon phase of fascination with the new culture; a culture shock phase with disillusionment and frustration; an adjustment stage characterised by gradual adaption to the new culture and eventually a mastery stage in which individuals function effectively in the new culture (Black & Mendenhall, 1991). Although the duration of each stage can vary (ibid.) and some scholars found a “j-curve theory” without the honeymoon phase in their research (e.g. Davis, 1963; Klineberg & Hull, 1979), it is generally accepted that individuals with foreign experience live through something akin to a “u- or j-shape” in their transition to a new culture. Furthermore, this u-shape needs to be extended with a second u-shape, basically combining to a w-shape, in individuals who’ve had past foreign experiences but have since returned to their home countries (Gullahorn & Gullahorn, 1963; Adler, 1981; Harvey, 1983). In fact, Adler (1981) found that repatriation to their home culture, so the second “u” of the “w-shape”, is more difficult for many expatriates than the original experience of settling into a foreign culture. It is therefore worth testing if individuals with past foreign experience, who experienced a “w-shape” of cross-cultural adjustment, differ in their cognitive biases from individuals who are currently living abroad and did not have to readjust into their home culture. The analysis will therefore be conducted both for the larger group of individuals

with foreign experience in general as well as for its subgroups: current experience and past experience.

But not only is it important to outline the previous academic research which lead to the categorization of individuals with foreign experience into several subgroups, it is also necessary to mention the relevant differences researchers have found between individuals with foreign experience and without foreign experience towards to research topic. Although already touched upon in the case of extensive travelers, people who have lived abroad for an extended period of time portray an entirely different set of unique characteristics resulting from their cross-cultural experiences. In general, recent research has demonstrated the positive effect of intensive multicultural experiences in relation to creativity, cognitive, and performance advantages (e.g., Kinias, Kim, Hafenbrack, & Lee, 2014; Leung & Chiu, 2010; Leung, Maddux, Galinsky, & Chiu, 2008; Maddux, Adam, & Galinsky, 2010; Maddux & Galinsky, 2009; Tadmor, Galinsky, & Maddux, 2012; Tadmor, Satterstrom, Jang, & Polzer, 2012; Tadmor & Tetlock, 2006; Tadmor, Tetlock, & Peng, 2009). Besides creative and performance improvements, foreign experience has also been shown to improve ones sense of self (Adam, Obudaru, Lu, Maddux, & Galinsky, 2018), and, directly connected to this paper, decreases in subconscious intergroup bias (Tadmor, Hong, Chao, & Wiruchnipawan, 2012). The study showed that a need for cognitive closure (NFCC), which proved to be significantly lower for individuals with foreign experience, mediated towards a reduced occurrence of discriminatory decision making or stereotype endorsement. Individuals who are faced with a cognitive disequilibrium or dissonance (for example through contradictory or new information) become “epistemically unfrozen” (Kruglanski, Deschsne, Orehek, & Pierro, 2009) and subsequently become motivated to “*reexamine existing assumptions, seek out additional information and revise their expectations*” (Tadmor, Hong, Chao, & Wiruchnipawan, 2012). This effect was significantly stronger in individuals with foreign experience (ibid.) and supports the hypotheses of this paper in that it has shown decreased cognitive biases due to foreign experience. It would further be consistent with recent neurological research suggesting that foreign experiences have the power to even alter the neurological wiring of the brain (Hedden, Ketay, Aron, Markus, & Gabrieli, 2008).

Literature Review: Decision-Making Biases

Decision-Making Biases (DMBs), are judgmental decisions based upon heuristics in cases where individuals are faced to take decisions with limited information availability. They are

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also known as cognitive biases (Plous, 1993) and are sometimes referred to as “System 1 thinking” (Kahneman, 2011; Sloman, 1996; Stanovich & West, 1999). They have been argued by evolutionary psychologists to be a cognitive adaption to survival within a complex environment (Haselton & Nettle, 2006) and occur in a wide variety of daily situations, including decisions made in different types of organizations (Paren, 2015).

This dissertation researches the effect of various multicultural experiences on three decision-making biases: status-quo bias, anchoring and confirmation bias. These biases are chosen for several reasons: First, as the literature review on foreign experience has already discussed, I expect that multicultural experience, with its positive effect on overcoming functional fixedness and improved idea flexibility (Maddux, Adam, & Galinsky, 2010) as well as other creative and innovative improvements already mentioned, will help individuals to overcome some of the negative attributes usually associated with these biases. Second, all three biases have already been extensively researched (see following literature review) but no previous research has aimed to understand the strength and effect of these biases in people with significantly different cultural experiences, neither in a cross-cultural study between two sets of opposing monocultural populations nor with two opposing sets of monocultural and multicultural population samples. While this dissertation fills this gap within the academic field, it also builds upon the vast previous research and methodologies used to study all three biases, for example by replicating the methodologies from widely cited articles within the field. The following part of the literature review hence outlines the most important literature concerning all three decision-making biases and provides a methodological background for the subsequent study.

Status-Quo Bias

Status-Quo Bias (henceforth SQB) bias is an emotional bias which prefers the current state of affairs over a new (often advantageous) alternative. It is a concept closely related to loss aversion and in opposition to the rational choice theory in economics. The latter was first formalized by Savage in 1954 and describes individuals as rational decision makers, which after careful consideration of economic utility pick the most utilitarian option available when given the choice (Savage, 1954). That this assumption is a rather limited model of actual human behavior consequently initiated the creation of an entire new field of research in behavioral economics and decision science. One of the best known concepts arising out of behavioral economics was the term “loss aversion” (e.g. Kahneman & Tversky, 1979; Kahneman,

Knetsch, & Thaler, 1991; Kahneman, 2011 ; Kahneman, Lovallo, & Sibony, 2011). Loss aversion describes the phenomenon in which *changes that make things worse loom larger than improvement or gains* (Kahneman, Knetsch, & Thaler, 1991). Feeding into the SQB this leads to individuals preferring to remain at a status quo, *because the disadvantages of leaving it loom larger than potential advantages gained* (ibid). The effect was most prominently demonstrated and termed by Samuelson and Zeckhauser in 1988. In their experiments subjects were given hypothetical questions either in a “neutral frame” (without a given status quo) or in a version with one answer clearly designated as the status quo. Results showed that any option became significantly more popular when it was designated as the status quo and that the effect strengthened with the number of options presented (Samuelson & Zeckhauser, 1988). These results gained from hypothetical questions were later confirmed in a real life study using valuations of public services for residential electrical services (Hartman, Doane, & Woo, 1991). These and other findings on SQB were eventually used in practice by various governments and/or private institutions to nudge people towards a certain behaviour (Hausman & Welch, 2010), most prominently by the Obama administration (Thaler & Sunstein, 2008) or the Cameron Cabinet in the UK (Service & Gallagher, 2017).

The SQB is of special interest to this dissertation as by definition any foreign experience necessitates one to leave the status quo (one’s home culture and/or familiar environment) for a new alternative (the new environment within a different country/culture). It could therefore be expected that a prolonged or even various foreign experiences subdue the effects of the status-quo bias in any given decision by reducing the aversion or feelings of riskiness most people tend to have regarding change.

Anchoring Effect

The anchoring effect (AE) refers to the adjustment of an answer after having previously received external information or an “anchor” (e.g. Slovic, 1967; Lichtenstein & Slovic, 1971; Kahneman & Tversky, 1974), and is one of the most robust cognitive heuristics (Furnham & Boo, 2011). AE has been shown to influence judgements in a wide variety of domains: From simple probability estimates (Kahneman & Tversky, 1979; Plous, 1989; Chapman & Johnson, 1999) to negotiation situations (Neale & Bazerman, 1991; Galinsky & Mussweiler, 2001) and general knowledge (Jacowitz & Kahneman, 1995; Strack & Mussweiler, 1997; Mussweiler & Strack, 1999; Epley & Gilovich, 2001; Mussweiler & Strack, 2001a; Mussweiler & Strack, 2001b; Mussweiler & Englich, 2005; McElroy & Dowd, 2007), anchoring affects nearly

everybody's decision-making on a daily basis. The current view explaining AE is based upon the theory of confirmatory hypothesis testing (Strack & Mussweiler, 1997; Chapman & Johnson, 1999; Wegener et al., 2010). The basic presumption is that respondents consider the anchor as a plausible answer and end up either searching for an answer which would confirm the anchor (Chapman & Johnson, 1994) or selectively blend out other answers from their memory (Strack & Mussweiler, 1997).

Various individual factors have been shown to influence AE, albeit often with conflicting results. Higher cognitive ability for example has both been shown to decrease AE (Bergman et al., 2010), or to have no significant statistical influence at all (Oechssler et al., 2009). Similarly knowledge or prior experience in the domain of the anchors topic has been shown to diminish AE (Wilson et al., 1996) or to produce only marginal differences compared to non-experts while increasing overconfidence in the answer (Northcraft & Neale, 1987; Englich & Mussweiler, 2001; Englich et al., 2005; Englich et al., 2006). Even prior warnings or knowledge about the existence of AE does not seem to prevent individuals from falling victim to it (Tversky & Kahneman, 1974; LeBoeuf & Shafir, 2009). Alone mood (Bodenhausen et al., 2000; Englich & Soder, 2009) as well as personality traits (McElroy & Dowd, 2007; Eroglu & Croxton, 2010) showed a consistent influence on AE.

Of special interest to the research question is the effect of personality traits on AE. A study by McElroy & Dowd (2007) showed that people high on the openness-to-experience scale in the Big5 personality test are more susceptible to anchoring effects than people who score relatively low in this domain. This could point towards the possibility that foreign exposure in fact makes people more likely to rely on anchoring effects to take decisions. Support for this hypothesis comes from a study by Bakalis & Joiner (2004), who showed that students who decide to spend a semester abroad on average score higher in openness-to-experience than their "stay-at-home" peers. It could therefore be expected that individuals with foreign experience (but not extensive travellers) are more reliant on anchors than individuals without foreign experience. Such a finding could be explained by two possible causations: Either a self-selecting bias prior to the foreign experience sorts individuals high on openness-to-experience into the foreign experience group (causation \neq correlation), or the ambiguous information gathered from experiences in two or more cultures could lead to less self-confidence relying on one's own assumptions and estimates and might make anchors more attractive as a point of reference (causation = correlation) (see also Overconfidence Bias, e.g. Kahneman D. , 2011; Pallier, et al., 2002).

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To investigate this possibility, this dissertation uses common questions asked to test for AE, like the length of the Mississippi (used in e.g.: Jacowitz & Kahneman, 1995; McElroy & Dowd, 2007), to compare the strength of AE across the independent variable of foreign experience.

Confirmation Bias

Confirmation bias (CB) refers to the “*tendency to search for or interpret information in a way that confirms one's preconceptions, initial opinion, or past choices*” (Plous, 1993) and “*leads people to ignore evidence that contradicts their preconceived notions*” (Kahneman, Lovallo, & Sibony, 2011). This preferential treatment of evidence supporting existing beliefs doesn't lead to completely ignoring contrasting information but becoming less responsive to it and/or even using it to discredit the other side (Nickerson, 1998). Considering that foreign experience deliberately exposes people to contrasting information on a daily basis and that individuals have various strategies to cope with the opposing sides (see Ward and Kennedy's acculturation index: Ward & Kennedy, 1994), it seems plausible that individuals who assimilate or integrate into a host culture will be more perceptive towards contrasting information and less likely to fall victim to CB. This would be further supported by research that has shown CB to be attributable to people's tendency to focus only on a single hypothesis at a time and seldom to consider two possibilities (Tweney, 1984; Tweney & Doherty, 1983; Doherty & Mynatt, 1986).

The most common explanation given for CB found within the academic literature is that individuals have a natural tendency to intentionally seek confirmatory information and that CB is in fact a cognitive failure (Evans, 1989; Klayman & Ha, 1987). However, it has been countered that a positive-test strategy does not exclude negative answers and should therefore not be regarded a bias (Bassock & Trope, 1984; Hodgins & Zuckerman, 1993). Nevertheless, the most famous experiment on CB, the Wason Selection Test (Wason, 1960; Wason, 1966; Wason, 1968), is generally regarded as a litmus test for the existence of CB (Evans, 1989; Perkins et al., 1983).

Although the Wason Selection Test is regarded as the litmus test for CB, this dissertation refrains from a full-scale repeat of the test. Given the limited scope and length of both dissertation as well as survey an adopted case-study commonly used in classroom setting to demonstrate CB is used instead to test for CB and used to recommend directions for future research.

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Contribution

This dissertation and its research question are of particular academic relevance as no existent study has researched the differences in decision-making biases between people with and without international exposure. While existing studies have researched the general presence of decision-making biases (like status-quo bias, anchoring etc.) within the general population, no differentiation has yet been made between subjects who have lived or grown up abroad and subjects who did not have foreign experiences. On the basis of the above summary of the existing literature in both areas, this dissertation expects people with significant foreign experience to be less susceptible to decision-making biases than people without such experiences.

The findings of this study are also of value to management and human resource departments, which should be especially concerned about the subconscious biases influencing their employees, managers and CEOs in their daily decisions. Study results can and should therefore be used to determine which groups in a company are most likely to be negatively affected by decision making biases and help to develop tools and procedures on an individual level to alleviate the subconscious disadvantage towards likelier detrimental decisions. This effort is further supported by a McKinsey study of 1000 business investments which showed that when companies try to actively reduce the effect of biases in their decisions, they achieved returns up to seven percent higher (Lovallo & Sibony, 2010). It also provides insights to explain performance differences between companies led by foreign nationals/CEOs with foreign experience and companies under the leadership of CEOs without personal foreign experience (e.g.: Carpenter, Sanders, & Gregersen, 2001; Godart et al., 2015; Herrmann & Datta, 2005).

Hypotheses

Building upon the above mentioned literature, this dissertation uses the following hypotheses to answer its research question. Each decision-making bias is analyzed in accordance to one null hypothesis and respective alternative hypothesis.

Hypothesis 1: Status-Quo Bias

Null hypothesis: There is no statistical correlation between possessing foreign experience and a disfavor towards maintaining the status quo compared to individuals without foreign

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experience (aka individuals with foreign experience show no difference in the status-quo bias compared to individuals without foreign experience).

Null: SQB Individuals_{with Foreign Experience} = SQB Individuals_{without Foreign Experience}

Alternative hypothesis: There is a statistical correlation between possessing foreign experience and a disfavor towards maintaining the status quo compared to individuals without foreign experience (aka individuals with foreign experience show a stronger/weaker status-quo bias than individuals without foreign experience). In light of the previous literature review, this paper expects SQB to be weaker in individuals with foreign experience, as by definition any foreign experience necessitates one to leave the status quo (one's home culture and/or familiar environment) for a new alternative (the new environment within a different country/culture), and may hence reduce the aversion or feelings of riskiness most people tend to have in regards to change.

Alt: SQB Individuals_{with Foreign Experience} ≠ SQB Individuals_{without Foreign Experience}

Hypothesis 2: Anchoring Effect

Framing the hypothesis for the anchoring effect along the same line of argumentation as for the status-quo bias, the null and alternative hypotheses are as follows.

Null hypothesis: There is no statistical correlation between possessing foreign experience and the strength of the anchoring effect compared to individuals without foreign experience (aka individuals with foreign experience show no difference in the anchoring effect compared to individuals without foreign experience).

Null: AE Individuals_{with Foreign Experience} = AE Individuals_{without Foreign Experience}

Alternative hypothesis: There is a statistical correlation between possessing foreign experience and the strength of the anchoring effect compared to individuals without foreign experience (aka individuals with foreign experience show a stronger/weaker anchoring effect than individuals without foreign experience). In light of the previous literature review, this paper expects individuals with foreign experience to show a stronger anchoring effect (individuals are influenced stronger by the anchor) in individuals with foreign experience (Bakalis & Joiner, 2004; McElroy & Dowd, 2007).

Alt: AE Individuals_{with Foreign Experience} ≠ AE Individuals_{without Foreign Experience}

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Hypothesis 3: Confirmation Bias

Once again, using the same line of argumentation as before, one gets the following hypotheses for confirmation bias.

Null hypothesis: There is no statistical correlation between possessing foreign experience and confirmation bias compared to individuals without foreign experience (aka individuals with foreign experience show no difference in confirmation bias compared to individuals without foreign experience).

$$\text{Null: } CB \text{ Individuals}_{with \text{ Foreign Experience}} = CB \text{ Individuals}_{without \text{ Foreign Experience}}$$

Alternative hypothesis: There is a statistical correlation between possessing foreign experience and confirmation bias compared to individuals without foreign experience (aka individuals with foreign experience show a stronger/weaker confirmation bias than individuals without foreign experience). In light of the previous literature review, this paper expects individuals with foreign experience to be less affected (weaker correlation) by confirmation biases than individuals without foreign experience (Tweney, 1884; Tweney & Doherty, 1983; Doherty & Mynatt, 1986).

$$\text{Alt: } CB \text{ Individuals}_{with \text{ Foreign Experience}} \neq CB \text{ Individuals}_{without \text{ Foreign Experience}}$$

Part 2

Methodology

The study conducted to research the relationship between foreign experience and decision making biases was aimed to test all three hypotheses by evaluating whether there are significant statistical relationship between independent and dependent variables. Although attention was given to ensure a representative population sample as well as inclusion of a broad variety of independent variables, the survey was intentionally kept brief and most variables were tested by using abbreviated or short-form questionnaires taken from previous academic research in the same fields. This was done for two reasons: First, the study was intentionally designed to test the hypotheses on a broad but less in-depth scale in order to use a larger range of findings in the design for potential subsequent studies, which can build upon the findings within this dissertation to dig deeper into the most relevant correlations. A lengthier questionnaire was therefore not needed in order to provide sufficient data to answer the research question within this dissertation. Second, shorter questionnaires have been shown to possess a higher response rate compared to longer questionnaires (Deutskens, Ruyter De, Wetzels, & Oosterveld, 2004) and, considering the time remuneration customary on Amazon mTurk, allowed for a larger amount of respondents given the limited budget available to conduct the study.

Independent variables ranged from the standard repertoire on general information about the respondents (age, gender, education, employment, marital status, nationality, ethnicity, languages spoken) to questions explicitly aimed to categorize respondents into groups of various exposure to foreign experiences (2nd nationality, nationality of family members, having lived or travelled abroad, length and destination of travel or stay abroad, self-assessment as a Third-Culture Kid). This was done to differentiate between individuals who spent time living abroad in a new environment and individuals who have remained in one place but were raised by parents with a foreign cultural background and possibly a different native language (Godart, Maddux, Shipilov, & Galinsky, 2015). The later would not necessarily qualify quantitatively as individuals with several years of foreign experience, yet might very well portray similar characteristics due to their bicultural family experience. Bilingualism for example, which can be acquired through family members, has been proven to positively affect integrative complexity as switching between two languages strengthens executive control capabilities and leads to an enhanced ability to deal with dualities (Bialystok, Craik, Green, & Gollan, 2009). Classifying individuals according to length of foreign experience alone could therefore

negatively distort the results of the statistical calculations underlying the research. Besides the nationality of the individual respondents, the independent variables therefore also controlled for the parent's nationalities as well as potential bilingualism.

Two further control variables were included within the independent variables: The Ward & Kennedy Acculturation Index asked respondents who had lived or are currently living abroad for their perceived similarity in terms of values, worldview and identity towards people from their respective home and host countries (Ward & Kennedy, 1994). It was included to provide potential insights into the relevance and relation of cultural distance between home and host countries towards differences found within the decision-making biases tested for in the dependent variables. To control for potential relationships between decision-making biases and personality traits, most importantly openness-to-experience, a Big-Five-Inventory (BFI) questionnaire was included in the survey. In order to keep the duration of the survey within a brief 15 minute window, only a short-form questionnaire of the BFI personality assessment was presented to the respondents, the so called BFI-10. This decision was based upon previous research by Rammstedt & John, who developed the BFI-10 short form questionnaire out of the traditional BFI-44 assessment while proving it to be almost as precise as the long form in a cross-cultural study conducted in English and German (Rammstedt & John, 2007). Most, if not all, relevant studies linking foreign experience to enhanced creativity, professional success, or other similar variables also control for the Big 5 in their analysis (e.g. Maddux & Galinsky, 2009; Maddux, Bivolaru, Hafenbrack, Tadmor, & Galinsky, 2014).

Survey questions on the dependent values tested for all three decision-making biases outlined previously. To guarantee reproducibility all questions were taken from widely cited previous studies conducted on the respective biases. A first set of three questions probed respondents on their preference for the status-quo. Each question was given either in a neutral phrasing with four equally neutral multiple choice answers, or in an opinionated phrasing with one answer signifying a status-quo response (see appendix). All questions were taken from a study by William Samuelson and Richard Zeckhauser, who researched the status-quo bias in decision making (Samuelson & Zeckhauser, 1988). A second set of three questions tested for anchoring biases. Each question had one anchor question and one subsequent open question, adding up to a total of six survey questions. Respondents were asked to give length, height or age estimates while being presented with two widely differing anchors, one significantly too low and one too high. After choosing one of the two anchors, respondents were presented with an open answer on their actual estimate to the question. The first question of the set asking for the

length of the Mississippi river was taken from an existing study by Jacowitz and Kahneman (1995), with the subsequent questions following the same line of thought but adapting the questions to a culturally diverse population sample by including the height of a skyscraper in Russia as well as the year of death of a Roman emperor (see appendix). The final set of questions regarding decision-making biases approached the topic of confirmation bias and provided respondents with a shortened version of a case study commonly used in university lectures. Despite the obvious shortcomings of this approach, the case study was selected as it provides for a concise test of the hypothesis compared to a repetition of previous research. Many of the most cited studies on confirmation bias have used focus groups and extensive questionnaires of 60+ minutes to conduct their research (e.g. Baron, 1995; Jonas et. al., 2001) or tested confirmation bias by asking for logical reasoning about a rule as made prominent by the “Wason Selection task” (Wason, 1968; Wason & Johnson-Laird, 1970; Evans, 1972; Sperber et. al., 1995). As a repeat of these extensive tests would have lengthened the survey significantly, the shortened version of the case study was chosen to test the hypothesis.

The survey was conducted using the online platform “Amazon mTurk” (short for Mechanical Turk). Amazon mTurk *is a crowdsourcing web service that coordinates the supply and demand of tasks that require human intelligence to complete* (Paolacci, Chandler, & Ipeirotis, 2010) and is often used as a source of subjects for experimental research (Eriksson & Simpson, 2010). Although reservations regarding possible drawbacks of online surveys were taken into account (as described by Reips, 2002), researchers generally found no evidence suggesting online data to be of any lesser quality than data from traditional methods (Krantz & Dalal, 2000; Gosling, Vazire, Srivastava, & John, 2004). mTurks workers in specific were shown to be relatively representative of the population of U.S. internet users (Ross, Irani, Silberman, Zaldivar, & Tomlinson, 2010), matching the population more closely than university student samples (Buhrmester, Kwang, & Gosling, 2011), while increasingly also featuring workers from outside the U.S., especially India, hence making it easy to conduct cross-cultural studies (Eriksson & Simpson, 2010). Especially relevant to the study within this dissertation is a previous study by Paolacci et al. (2010). Using the *Linda problem* (Tversky & Kahneman, 1983) as well as the *physician problem* (Baron & Hershey, 1988), Paolacci et al. compared results from subject samples from various methods of data collection and found mTurk to be *a reliable source of experimental data in judgement and decision-making*. The potential drawback of inattentive subjects in web based experiments (Oppenheimer, Meyvis, & Davidenko, 2009) was prevented by retrospectively excluding all subjects which had given one

or more illogical answers (for example random letters in place of a requested answer in years) or failed to finish the survey until the end. Using an estimate of 12 minutes on average to fill out the survey, respondents were paid 0.40 € per survey or 2 € per hour, which despite being a low remuneration, should not have negatively affected the quality of the collected data (Mason & Watts, 2009).

To prevent potential interference or “cultural framing” of subjects (Benet-Martínez, Leu, Lee, & Morris, 2002; Cheng, Lee, & Benet-Martínez, 2006) all questions on foreign experience were asked at the end of the survey. Questions on dependent variables were hence answered in the culturally neutral state usually experienced by each individual respondent.

Descriptive Statistics

The survey was conducted in a single day on April 6th 2018. In total 288 answers were recorded, of which 243 were valid responses. Respondents were predominantly male (73% to 27%), between the ages of 25 to 34 (56%, with a total of 91% being in the range between 18 to 44) and were mostly American (53%) or Indian (37%). Although in total respondents came from 21 separate countries, the remaining 19 only amassed for 10% of the total answers collected and never contributed more than 4 individual responses. The demographics are therefore in line with previous studies elaborating on the dominance of American and Indian workers on mTurk (Eriksson & Simpson, 2010), but fall somewhat short in being more representative than university student samples given the large dominance of male respondents (Buhrmester, Kwang, & Gosling, 2011). In regards to the multicultural focus of the study, responses were split almost evenly between individuals with foreign experience and individuals without foreign experience, 121 to 122 respectively. Of those with foreign experience, 63 (26% of total responses) had previously lived abroad with the remaining 58 evenly split between currently living abroad and having travelled extensively at some stage (29 each or 12% of total responses). Of the 92 respondents who had or are currently living abroad, 44 self-identified as Third-Culture Kids given the most commonly found definition (Pollock & Van Reken, 2009).

The Relationship Between Multicultural Life Experiences and Decision-Making Biases

Analysis

Status-Quo Bias

To analyze the status-quo bias (SQB) the questionnaire used questions from a previous study on SQB and decision making (Samuelson & Zeckhauser, 1988). All respondents were given three questions in which they had to make a decision between four alternatives facing a fictitious scenario. Each question had two versions: One neutrally phrased and one in which one answer clearly maintained the status-quo described in the question. Respondents were randomly shown either the neutral or the status-quo version of each question, without knowing the intention behind the study to prevent an otherwise biased selection of answers apart from SBQ (see appendix for questions).

To test the hypothesis respondents were grouped into individuals with foreign experience and individuals without foreign experience and subsequently checked how much more likely each group is to preferring the status-quo answer in the SQB framed question compared to the same group's result for the answer in the neutrally framed question. The results are summarized in the tables on the next page. For all three questions (Job, Prison, Safety), the first row in bold shows the question that was given either in a neutral or a status quo phrasing (Midwest, Sparse1500 and 70-30). Both the total amount of responses (Example: 13 out of 58, or 22.41%, of respondents answered Midwest in the neutrally phrased Job question) as well as the percentages of the total are given for both versions and both groups (with and without foreign experience). The graphs to the right summarize the percentage change each answer received in the status quo version compared to the neutral phrasing.

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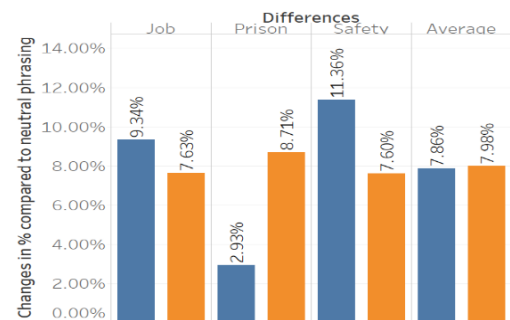
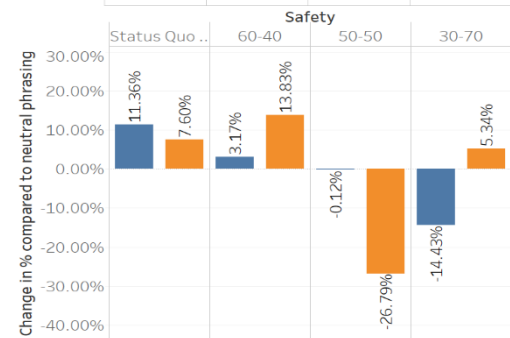
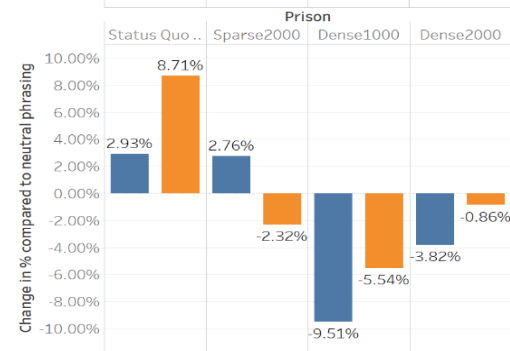
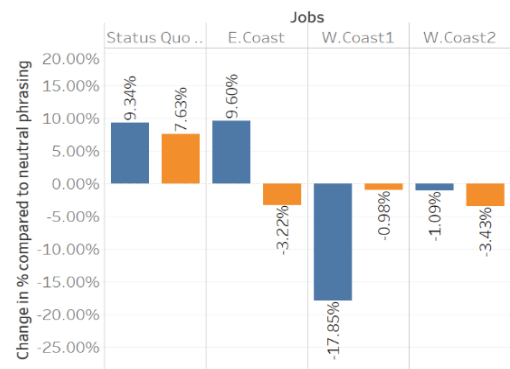
Job	With Foreign Experience		Without Foreign Experience	
	Neutral	SQ*	Neutral	SQ*
Midwest*	13/58 .2241	20/63 .3175	7/54 .1296	14/68 .2059
E.Coast	11/58 .1897	18/63 .2857	20/54 .3704	23/68 .3382
W.Coast1	26/58 .4483	17/63 .2698	18/54 .3333	22/68 .3235
W.Coast2	8/58 .1379	8/63 .1270	9/54 .1667	9/68 .1324
Prison				
Sparse 1500*	15/62 .2419	16/59 .2712	18/60 .3000	24/62 .3871
Sparse 2000	13/62 .2097	14/59 .2373	13/60 .2167	12/62 .1935
Dense 1000	8/62 .1290	2/59 .0339	13/60 .2167	10/62 .1613
Dense 2000	26/62 .4194	27/59 .4576	16/60 .2667	16/62 .2581
Safety				
70-30*	11/67 .1642	15/54 .2778	7/54 .1296	14/68 .2056
60-40	14/67 .2090	13/54 .2407	10/54 .1852	22/68 .3235
50-50	10/67 .1493	8/54 .1481	24/54 .4444	12/68 .1765
30-70	32/67 .4776	18/54 .3333	13/54 .2407	20/69 .2941

Diff. SQ-N	Is/was abroad	Never
Job	.0934	.0763
Prison	.0293	.0871
Safety	.1136	.0760
AVG*	.0787	+ .0798

*the average is unweighted (not controlling for different amount of answers in each question)

Legend

- With Foreign Experience
- Without Foreign Experience



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In all cases and across both groups the SQB answer is preferred when presented as such and sees a marked increase in comparison to the same answer in a neutral form. The study hence replicates previous research on SQB (Samuelson & Zeckhauser, 1988). Of interest to this dissertation however is the difference between the two groups. The unweighted average change (meaning how much percent each group is more likely to pick the status quo answer if it is indicated as one) in each group is almost identical (+7.86% compared to +7.98% respectively) and would hence require a rejection of the alternative hypothesis. However, weighting the average change according to the number of responses draws a slightly different picture:

	With Foreign Experience	Without Foreign Experience
Neutral Framing*	.2086	.1905
SQB Framing*	.2898	.2626
Change	+ .0812	+ .0721

Only including responses for the answer options: Midwest, Sparse1500* and 70-30*

Given the proper weighting in accordance with the number of responses for each question, individuals with foreign experience are slightly more likely in choosing the SQB answer (8.12% more likely) than individuals without foreign experience (7.21% more likely). In other words, individuals with foreign experience are 0.91% more likely to pick the status quo than individuals without foreign experience. Despite the very small difference of only 0.91%, this finding would necessitate to reject the null hypothesis and accept the alternative one. To test if this finding holds up and isn't a chance event, a Chi-Square test was conducted for each of the three questions. Only if the asymptotic significance (p) is below .05 can the results be accepted.

	Question Neutral			Question with Status Quo Frame		
	Pearson Square	Chi-Square	Asymptotic Significance (2-sided)	Pearson Square	Chi-Square	Asymptotic Significance (2-sided)
Job	5.791 ^a		.122	2.181 ^a		.536
Prison	3.812 ^a		.282	9.833 ^a		.020
Safety	14.109 ^a		.003	1.669 ^a		.644

Degrees of freedom (df) = 3

Alone the neutrally phrased "safety" question as well as the SQ phrased "prison" question fall below .05, with no visible trend throughout the analysis. This means there is no statistical correlation between foreign experience and preferencing the status-quo. The alternative hypothesis needs to be rejected and the null hypothesis holds true.

Null: SQB Individuals_{with Foreign Experience} = SQB Individuals_{without Foreign Experience}

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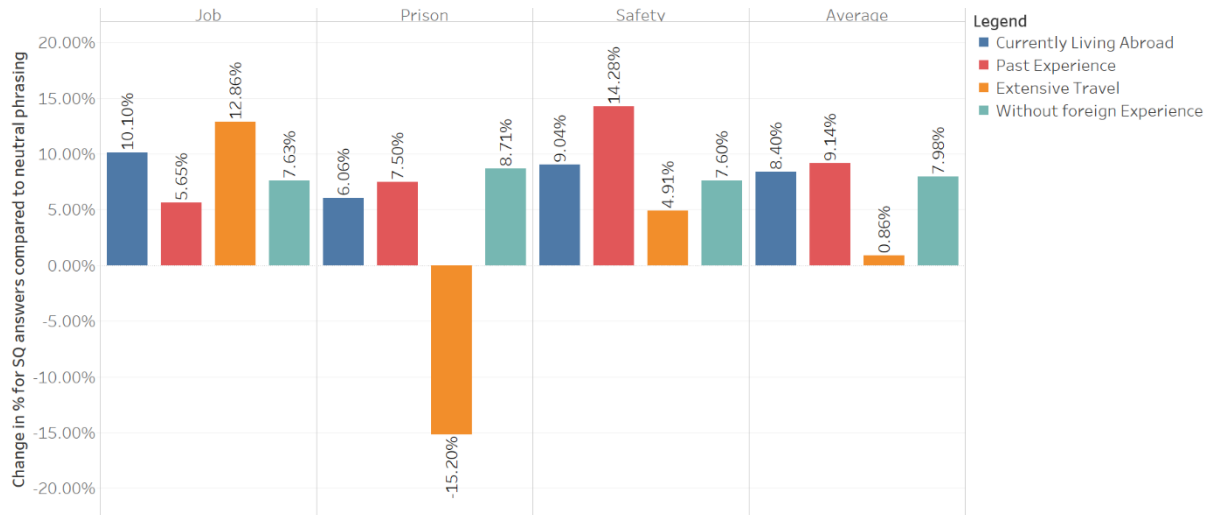
One further theory from the literature review regarding foreign experience was that there would be a difference to be found between the subgroups of individuals with foreign experience, which might potentially explain the statistical significance in the “safety” and “prison” question. To test this theory, the independent variable “individuals with foreign experience” was hence split into three subgroups: Extensive travellers (defined as at least 3 months continuous travel, e.g. backpacking), current immigrants/expatriates and returned expatriates. Despite not finding a statistically significant correlation using only two groups, the test was repeated with the following results (Note: the table follows the same structure as the one above. Midwest, Sparse1500 and 70-30 were the three answers that changed from neutral to SQ. The graphic shows only the changes for the SQ answer compared to the same answer in the neutral frame:

Job	Currently living abroad		Past Experience (incl. repatriation)		Extensive Travel (e.g. backpacking)		Without Foreign Experience	
	Neutral	SQ*	Neutral	SQ*	Neutral	SQ*	Neutral	SQ*
Midwest*	6/13 .4615	9/16 .5625	6/31 .1935	8/32 .2500	1/14 .0714	3/15 .2000	7/54 .1296	14/68 .2059
E.Coast	1/13 .0769	3/16 .1875	5/31 .1613	9/32 .2813	5/14 .3571	6/15 .4000	20/54 .3704	23/68 .3382
W.Coast1	5/13 .3846	4/16 .2500	15/31 .4839	9/32 .2813	6/14 .4286	4/15 .2667	18/54 .3333	22/68 .3235
W.Coast2	1/13 .0769	0/16 .0000	5/31 .1613	6/32 .1875	2/14 .1429	2/15 .1333	9/54 .1667	9/68 .1324
Prison								
Sparse 1500*	3/11 .2727	6/18 .3333	8/34 .2353	9/29 .3103	4/17 .2353	1/12 .0833	18/60 .3000	24/62 .3871
Sparse 2000	3/11 .2727	3/18 .1667	6/34 .1765	8/29 .2759	4/17 .2353	3/12 .2500	13/60 .2167	12/62 .1935
Dense 1000	0/11 .0000	0/18 .0000	6/34 .1765	2/29 .0690	2/17 .1176	0/12 .0000	13/60 .2167	10/62 .1613
Dense 2000	5/11 .4545	9/18 .5000	14/34 .4118	10/29 .3448	7/17 .4118	8/12 .6667	16/60 .2667	16/62 .2581
Safety								
70-30*	4/15 .2667	5/14 .3571	5/35 .1429	8/28 .2857	2/17 .1176	2/12 .1667	7/54 .1296	14/68 .2056
60-40	3/15 .2000	3/14 .2143	7/35 .2000	9/28 .3214	4/17 .2353	1/12 .0833	10/54 .1852	22/68 .3235
50-50	1/15 .0667	0/14 .0000	7/35 .2000	3/28 .1071	2/17 .1176	5/12 .4167	24/54 .4444	12/68 .1765
30-70	7/15 .4667	6/14 .4286	16/35 .4571	8/28 .2857	9/17 .5294	4/12 .3333	13/54 .2407	20/69 .2941

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	Currently living abroad	Past Experience (incl. repatriation)	Extensive Travel (e.g. backpacking)	Without Foreign Experience
Diff. SQ-N				
Job	.5625-.4615=.1010	.0565	.1286	.0763
Prison	.0606	.0750	-.1520	.0871
Safety	.0904	.1428	.0491	.0760
AVG*	+.0840	+.0914	+.0086	+.0798

*the average is unweighted (not controlling for different amount of answers in each question)



What can be observed is a similar trend as before. Individuals who are either currently living abroad, had a past experience or have no foreign experience are all 8-9% more likely to pick a status quo answer over the same answer if it is given in a neutral phrase. Alone individuals with a background of extensive travel seem to differ and show, on average, almost no preference for a status quo over a neutral frame. It must be noted though that this trend is solemnly due to the distinctive rejection of the SQ answer (-15.2%) in the “Prison” question.

The trend is maintained even when weighting averages according to the number of responses to each question:

	Currently living abroad	Past Experience (incl. repatriation)	Extensive Travel (e.g. backpacking)	Without Foreign Experience
Neutral Framing*	.3333	.1900	.1458	.1905
SQB Framing*	.4167	.2809	.1538	.2626
Change	+.0834	+.0909	+.0080	+.0721

Only including responses for the answer options: Midwest, Sparse1500* and 70-30*

Unfortunately, given the limited amount of responses for the groups “currently living abroad” and “without foreign experience” (29 each), the amount of responses is no longer large enough to test the results statistically with the commonly used Chi-Square test and 2-sided asymptotic significance. Instead the Monte Carlo method had to be used in effect simulating a larger

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sample. Although a larger sample would have been preferable to test the statistical significance, the Monte Carlo method has been proven to be a reliable method for scaling small datasets for use in academic research, both for the social sciences as well as natural sciences which need to be even more precise (Sawilowsky, 2003; Spence, 1983). To be statistically significant the Monte Carlo Significance needs to be below .05.

	Question Open				Question with Status Quo Frame			
	Pearson Square	Chi-	Monte Carlo Significance	Carlo	Pearson Square	Chi-	Monte Carlo Significance	Carlo
Job	14.102 ^a		.114		11.293 ^a		.259	
Prison	5.862 ^a		.768		15.398 ^a		.077	
Safety	16.514 ^a		.054		12.428 ^a		.185	

None of the Monte Carlo Significances fall below 0.05 and are hence statistically not significant. Not even the results in the “Prison” question qualify as being significant. The surprising rejection of the SQ answer by extensive travellers is therefore more likely a chance event, especially considering the very low amount of respondents. This paper therefore concludes that there is no difference in SQB between individuals with foreign experience (including all subgroups) and individuals without foreign experience.

$$\text{Null: } SQB \text{ Individuals}_{with \text{ Foreign Experience}} = SQB \text{ Individuals}_{without \text{ Foreign Experience}}$$

Anchoring Effect

For the anchoring effect (henceforth abbreviated as AE) this dissertation repeated a study by Jacowitz and Kahneman (1995) with minor tweaks. Only three questions were posed to respondents (two of which were not featured in the original study but created to fit an international sample) out of the original 15. Furthermore this dissertation did not make use of a calibration group to determine high and low anchors (anchors were determined by the researcher), which prohibits the use of extensive statistical analysis and hypothesis testing but maintains the validity of the descriptive statistics outlined in the original paper. Despite these shortcomings this method provides enough data to test for the hypothesis while simultaneously keeping the questionnaire within its brief time frame. The collected responses were coded into an anchoring index using the following formula:

$$AI \text{ (Anchoring Index)} = \frac{\text{Median (high anchor)} - \text{Median (low anchor)}}{\text{High anchor} - \text{Low anchor}}$$

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This method is a direct replication of the method used by Jacowitz and Kahneman (1995).

Results are summarized in the following table:

	Low Anchor	High Anchor	Group	Low Median	High Median	Anchoring Index
Mississippi	200	20,000	Currently	300	3,742	0.17
			Past	2,000	12,500	0.53
			Travel	3,000	3,739	0.37
			Without FE	2,100	11,000	0.45

Mississippi	200	20,000	With FE	1500	3,789	0.12
			Without FE	2100	11,000	0.45

	Low Anchor	High Anchor	Group	Low Median	High Median	Anchoring Index
Lakhta Center	400	700	Currently	462	500	0.13
			Past	450	748	0.99
			Travel	462	650	0.63
			Without	462	700	0.79

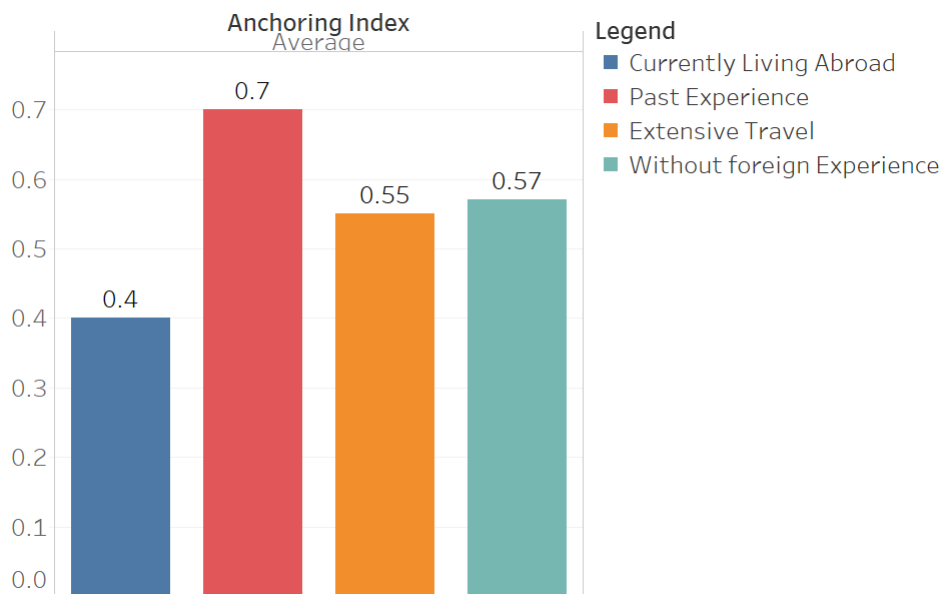
Lakhta Center	400	700	With FE	460	700	0.80
			Without FE	462	700	0.79

	Low Anchor	High Anchor	Group	Low Median	High Median	Anchoring Index
Aurelius	50	300	Currently	75	300	0.90
			Past	52	200	0.59
			Travel	88	250	0.65
			Without FE	60	180	0.48

Aurelius	50	300	With FE	70	200	0.52
			Without FE	60	180	0.48

Avg: Currently = 0.4 / Past = 0.7 / Travel = 0.55 / Without = 0.57 / (Grouped "With FE" = 0.48)

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While a general comparison between individuals with foreign experience and individuals without foreign experience shows relatively little difference in AE (an average of 0.48 compared to 0.57 respectively), the analysis reveals significant differences between the various subgroups. While extensive travellers show no difference to individuals without foreign experience (0.55 to 0.57), individuals currently living abroad are least affected by AE (0.4) while repatriated expatriates are significantly more affected than every other group (0.7). This requires a rejection of the null hypothesis and acceptance of the alternative one:

Alt: $AE\ Individuals_{with\ Foreign\ Experience} \neq AE\ Individuals_{without\ Foreign\ Experience}$

Although the limitations of the dataset only allow for a comparison of descriptive statistics (see limitations), the average results of the anchoring index provide a solid insight into the differences between the various groups of individuals with foreign experience and individuals without foreign experience. While differences are relatively muted when compared only between individuals without and with foreign experience (0.57 compared to 0.48, a difference of only 0.09), deeper insights are won when individuals with foreign experience are grouped into their respective subgroup. Individuals with extensive travel experience show almost no difference to individuals without foreign experience, which could indicate that length and/or depth of integration into a foreign culture are responsible for changes in anchoring effects. Furthermore there is a large difference between individuals currently living abroad (0.4) compared to individuals with past foreign experience and subsequent repatriation (0.7). Although the nature of descriptive data doesn't allow for a deeper analysis into the causation for this finding, it seems plausible that an ongoing integration into a foreign culture makes

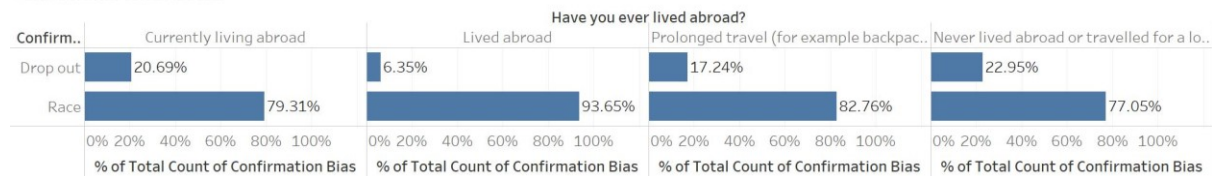
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people more reliant on themselves, whereas the often overlooked stress of a repatriation with often experienced questions of self-identity and belonging (Adler, 1981, Bushong, 2013) might make individuals more likely to base their decisions on the lead of others.

Confirmation Bias

To test the hypothesis for confirmation bias (henceforth abbreviated as CB), a commonly used case study about CB was presented to the respondents. Although shortened to fit the time limit of the survey, the case presented respondents with a fictitious racing scenario in which they had to indicate whether to race or to drop out. The case was modelled on the fateful incidents of Challenger Space Shuttle launch, which was shown to be a real-life example of CB and threat-rigidity (Miller, 1993; Edmondson et. al., 2005). In a first set of information the respondents, who were asked to imagine being the manager of a racing team just prior to an important race, were given conflicting but equally weighted information on whether it would be safe to race the car or better to drop out of the race. They were then asked to indicate their decision, with subgroups varying in their responses. Given the nature of the questions, the results also portray the existence of differences between the groups in overconfidence as well as risk-aversion:

Confirmation Bias



While the descriptive statistics do not yet test for a CB (only a follow-up question can test for confirmation or escalation of commitment), the preference to race by individuals with foreign experience in comparison to individuals without points towards a stronger risk-taking behaviour in the previous group. This correlation is statistically supported by the chi-square test with $p < 0.05$.

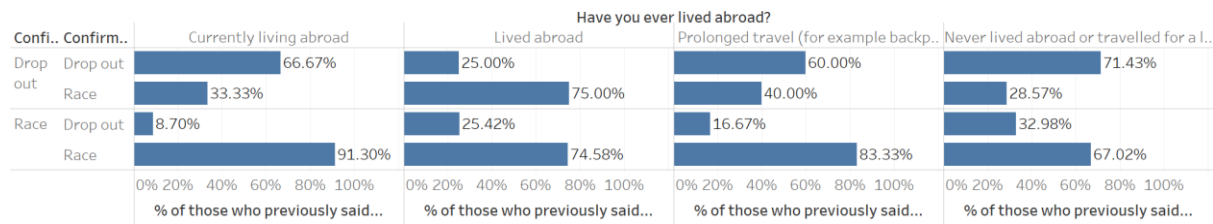
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.065 ^a	3	.045
Likelihood Ratio	9.373	3	.025

Comparing the independent variable "Foreign Experience" to the dependent variable "Race/Drop Out first set"

The actual test for CB followed in the second question, the follow up question. Additional information about the risks of deciding to race were provided, respondents were expected to switch their position from "race" to "drop out" or to remain with "drop out". The prevalence

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of respondents sticking to their initial decision to “race” is therefore an indication for both CB as well as risk-taking behaviour.



Despite their descriptive nature, the findings clearly show differences between individuals with and without foreign experience, as well as within the subgroups of individuals with foreign experience. Individuals without foreign experience are least likely to stick towards their decision to “race” (32.98% changed their response) and most likely to remain with “drop out” if they had previously decided to do so. Individuals currently living abroad were the group most likely to stick towards their previous decision, especially if they had decided to “race” in the first question, which could be caused by threat-rigidity (Staw, Sandelands, & Dutton, Threat Rigidity Effects in Organizational Behavior: A Multilevel Analysis, 1981). This is important in so far that they had shown a similar preference to either option in the first question as did individuals without foreign experience. The preference to remain with their initial choice, predominantly for those who picked “race”, is therefore an indication for CB and threat-rigidity, especially considering that the subsequent information was supposed to nudge people to “drop out”. All correlations are supported by the chi-square test, which compared whether individuals had foreign experience (and which kind) to their decision to either “race” or “drop out”.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.951 ^a	3	.030
Likelihood Ratio	9.085	3	.028

Comparing the independent variable “Foreign Experience” to the dependent variable “Race/Drop Out second set”

As there is a statistically significant relationship between foreign experience and CB the null hypothesis can be rejected and the alternative hypothesis holds true:

$$Alt: CB\ Individuals_{with\ Foreign\ Experience} \neq CB\ Individuals_{without\ Foreign\ Experience}$$

Contrary to this papers expectations, CB (or threat-rigidity) is actually stronger in individuals with foreign experience than it is in individuals without.

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In addition to the choice between “race” and “drop out”, respondents were also asked to rate their confidence in their decision on a 5-point scale ranging from “Extremely unconfident” to “Extremely confident”. For both questions individuals who were currently living abroad indicated to be the most confident about their decision while individuals with extensive travelling background were the least confident from the groups. Past experience as well as no foreign experience showed similar results (see appendix). A Chi-Square test however revealed that none of the correlations was statistically significant, neither for the first “race/drop out” question nor the second. Overconfidence in decisions is therefore not correlated to foreign experience, even though CB and threat rigidity are.

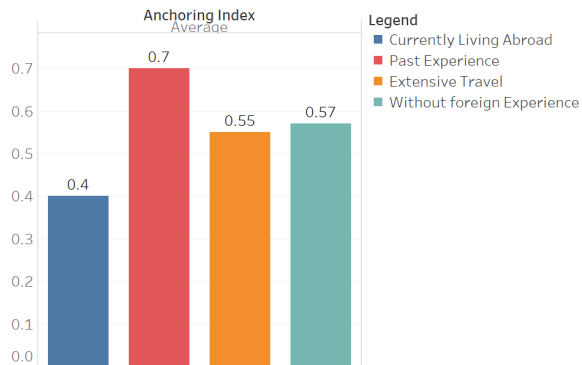
Discussion / Mediators

A discussion of the findings in this study is most interesting for AE and CB, as both showed statistically significant correlations. For SQB this dissertation was only able to replicate previous findings (Samuelson & Zeckhauser, 1988), but did not further the field of research as no correlation between foreign experience and SQB was found. The hypothesis, that foreign experience subdues the effects of SQB in any given decision by reducing the aversion or feelings of riskiness most people tend to have regarding change, could not be supported and makes a further discussion unnecessary. Following AE and CB will be reexamined in consideration to the literature review, with the most important findings being summarized again through the graphs:

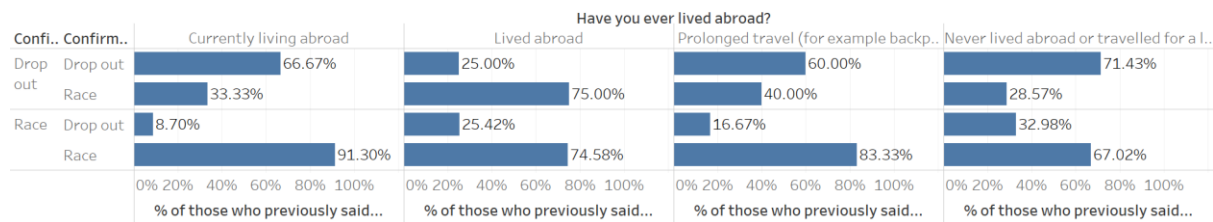
The findings for AE were insofar surprising, in that they did not only show a descriptive correlation between foreign experience and AE but also a stark contrast between individuals currently living abroad (who are less affected than individuals without foreign experience or travelers) and individuals with a past foreign experience (who were the most affected of all groups). A possible explanation could be the u-, respectively w-shaped “culture-shock” curves commonly experienced by immigrants, expats and repatriates (Gullahorn & Gullahorn, 1963; Adler, 1981; Harvey, 1983). It seems plausible that an ongoing integration into a foreign culture makes people more reliant on themselves, whereas the often overlooked stress of a repatriation with often experienced questions of self-identity and belonging (Adler, 1981, Bushong, 2013) might make individuals more likely to base their decisions on the lead of others. A possible mediator between the experience of integration and repatriation and the effects seen in AE could be cultural identification patterns (Berry, 1997). This would be further supported by the finding that individuals with extensive travel experience show almost no difference to

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individuals without foreign experience, indicating that length and/or depth of integration into a foreign culture might be responsible for changes in AE.



CB actually showed similar trends as AE. Not only was there a statistically significant correlation between foreign experience and CB, it also differed between the various groups:



Different to AE all foreign experience increases the effect of CB to various degrees compared to individuals without foreign experience. Across the board individuals with foreign experience are more likely to race and to stick to their decision. This was especially prominent in individuals currently living abroad and might point towards threat rigidity (Staw, Sandelands, & Dutton, Threat Rigidity Effects in Organizational Behavior: A Multilevel Analysis, 1981) and intense escalation of commitment (Staw, 1976; Staw, 1981) in this group. Similar as AE, individuals who had returned home and experienced a repatriation differed significantly from individuals currently living abroad and were most likely to change their decision regardless of which option they had picked before. Again this could indicate that cultural identification patterns as well as the u-/w-curve experience have a mediating effect on DMBs, also considering that extensive travellers, who do not share this experience, fall somewhere between the two extremes of current and past experience and are the most similar to having no foreign experience. As in AE, CB seems to indicate that individuals who are undergoing the u-shape experience rely more on themselves when taking decisions, while individuals after the w-shape experience and repatriation undergo another identity and/or acculturation process and end up basing their decisions more on the actions of others. This would also be supported by the theoretical underpinnings of escalation of commitment in which individuals *commit the*

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greatest amount of resources to a previously chosen course of action when they are personally responsible for negative consequences (Staw, 1976). If individuals currently living abroad indeed rely more on themselves to take decisions than every other group, it is not surprising that they stick to their decision more than any other group.

The analysis lays ground for the discussion of two possible mediators between foreign experience and DMBs: cultural identification patterns as well as integrative complexity.

Cultural identification patterns describe an individual's acculturation with a foreign culture. Previous research identified four types of cultural identification patterns: separation, assimilation, marginalisation, and integration (Berry, 1997; Bourhis, Moise, Perreault, & Senecal, 1997). As people behave and adopt to a foreign culture in different ways, this could have affected the dependent variables by mediating between foreign experience and the studied DMBs. Evidence for this causation comes, for example, from a study by Cheng, Sanchez-Burks and Lee, which linked creative performance to bicultural identity integration and found that people with largely integrated and compatible cultures were more creative than people who dissociated their cultural experiences and found it difficult to integrate the two (2008). Previous research had already shown that individual differences in bicultural identity affect how cultural knowledge is used to interpret social events (Benet-Martínez, Leu, Lee, & Morris, 2002). Furthermore, Tadmor, Galinsky and Maddux showed that identification with a new host culture, but not separation or marginalisation, were predictors for promotion rates and managerial reputation in a sample of Israeli immigrants working in the United States (2012). Considering their findings, as well as other research which linked general creativity as well as workplace success to foreign experiences (Maddux & Galinsky, 2009; Maddux, Bivolaru, Hafenbrack, Tadmor, & Galinsky, 2014), it seems possible that cultural identification patterns moderate the correlation between foreign experience and DMBs (moderating effects as defined by: Baron & Kenny, 1986). This mediator gains significant support also from the difference between individuals currently living abroad and returned expatriates regarding DMBs. The repatriation experience could lead to a shift in cultural identification both for the home and host culture and hence explain the variations during and after experiencing a foreign culture. To control and test for these patterns, the survey should include the Ward and Kennedy acculturation index (Ward & Kennedy, 1994).

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A second possible mediator is integrative complexity. This hypothesis stems from previous research which had already shown that foreign experience/biculturalism is positively related to integrative complexity (Bialystok, Craik, Green, & Gollan, 2009; Fee, Lu, & Gray, 2010) and that integrative complexity is subsequently negatively related to cognitive biases (Tetlock & Kim, 1987). It was also shown to be a potential mediator between foreign experiences and other dependent variables (Tadmor, Galinsky, & Maddux, 2012). Further research proved that integrative complexity has important implications for a variety of cognitive tasks that are necessary to achieve professional success, including information search, tolerance for ambiguous information and less susceptibility to information overload (Streufert & Nogami, 1989). Considering the research integrative complexity could explain the correlation between foreign experience and DMBs, however it cannot explain the differences between current and past foreign experiences on DMBs, as this would entail a necessary loss of integrative complexity during repatriation experiences. Nevertheless, a test for integrative complexity should be included in further research to better understand its role as a possible mediator.

Limitations / Future Research

One of the biggest limitations this dissertation faced in its analysis was the wide range of quality in the collected responses. As previously mentioned, from 288 total answers only 243 were valid, with 45 responses being of such low quality that they had to be excluded from the analysis. They were either partly or entirely incomplete and/or had obvious logical mistakes, for example answering questions with random letters instead of giving an estimate in numbers for AE. Furthermore, even in the remaining 243 responses the quality and effort put in by respondents varied enormously. This was especially prominent for questions regarding the Ward & Kennedy acculturation index. Although a total of 91 responses were collected for the Ward & Kennedy index, 32 “compared” the same country against itself (21 India to India, 11 USA to USA), calling to question even the validity of the remaining responses. Several responses from the remaining 59 also compared cultures which they had previously not indicated as having lived in, further diminishing the quality of the responses. This trend was also visible when respondents were asked to name the countries they had lived in, including the length of their stay. Although many responses were legitimate, many answers provided only countries without length of stay and in some cases only the length of stay but without mentioning any country. Surprisingly even one of the simpler questions, the self-identification as a TCK given a common definition, proved challenging for 30 out of 91 people who answered

with “Don’t know”. As most of the low-quality responses came towards later stages of the survey (generally regarding the independent variables), it might have been the case that the relative length of the survey (which was longer for individuals with foreign experience) combined with the small remuneration provoked respondents to rush through the later parts of the questionnaire (Weimiao & Zheng, 2010). Given the reduced amount of high quality responses and hence the limited statistical value of any finding deducted from it, several of the independent variables assumed to have an effect on SQB had to be left out of the analysis.

A further limitation for the study proved to be the attempted scope mixed with the maximum length of the paper. Initially conceptualised as a first test study to analyse trends and develop an in-depth longitudinal study with exchange students as well as another in-depth study with professionals of a least 5+ years of work experience, the limited length, both of the dissertation as well as of the survey, made it difficult to analyse the findings past initial statistical correlations between foreign experience and the various DMBs. This is especially prominent in the analysis of AE and CB. In the case of AE, the original study by Jacowitz and Kahneman was replicated (1995) was replicated but excluded the calibration group to set anchors in order to keep the survey as concise as possible. This however in effect prohibited the replication of the statistical tests from the original study and made it impossible to test for statistical significances. Survey questions for CB faced their own limitations. Despite the statistical significance between foreign experience and CB, the use of a shortened case study intended for the use in university lectures cannot decisively conclude the causation between the two variables, even though they are correlated. A follow up study should therefore use the Wason Selection Task instead to conclusively prove this paper’s findings. It would both add significance to the findings and the research field in general, as the task is already “the most intensively researched single problem in the history of the psychology of reasoning” (Evans, Newstead, & Byrne, 1993, p. 99).

Given the limitations within this study, this paper recommends further in-depth studies on the topic while building upon the findings described within the above analysis. Of most interest for further studies would be the relation between foreign experience and the two DMBs, AE and CB. In both correlations were statistically significant to support further studies. A full repeat of the Jacowitz and Kahneman study for AE would be advised (including the calibration group), while for CB a change towards the Wason Selection Task is recommended. SQB did not produce statistically significant results and it seems unlikely that a further study would produce different results, even if a different methodology would be used.

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As results have shown differences not just between individuals without and with foreign experience (excluding travelers), but also between individuals currently living abroad as well as returned expatriates, this dissertation would further recommend follow-up studies to be longitudinal. The findings herein have shown individuals currently living abroad to be less susceptible to certain DMBs and returned expatriates to be more susceptible to DMBs than individuals without any foreign experience. This trend is easiest to test through a longitudinal study, possibly using students which are about to go on exchange. Tests should be repeated three times: before, at the end and one semester after the exchange, which would provide for a clear analysis of the susceptibility to DMBs throughout the various stages of foreign experience. Using the same set of respondents throughout all three stages also makes it easier to control for initial cultural differences as well as personality traits. Students who decide to go abroad for a semester have been shown to be more tolerant for ambiguity and open to experience (Bakalis & Joiner, 2004), however taken as a homogenous group this would not affect differences within the various stages of foreign experience. Possible mediators like acculturation strategy as well as integrative complexity should be tested for. Priming, in form of a self-report (Maddux & Galinsky, 2009; Maddux, Bivolaru, Hafenbrack et. al., 2014), could be used in the final survey to test if negative effects of the repatriation experience on DMBs can be minimised through cultural frame switching. Previous research has shown that priming evokes responses more in line with host (foreign) culture (Kitayama, Duffy, Kawamura, & Larsen, 2003), so a reduction of the DMBs after priming could be possible. Self-reports must be used as students invariably go to different countries and any guided priming task would result in irregular outcomes given the various cultural backgrounds (Gardner, Gabriel, & Lee, 1999). Despite the potential risks associated with self-reports, this form of measurement falls in line with previous research demonstrating the predictive validity of subjective self-reports of learning and adaptation (Leung & Chiu, 2010; Maddux & Galinsky, 2009; Tadmor, Galinsky, & Maddux, 2012).

Conclusion

This dissertation focused on the impact foreign experience in individuals has on various decision making biases. Specifically it researched the impact foreign experience, in the form of extensive travel, expatriation and/or immigration, has on three specific decision making biases: anchoring, status-quo bias as well as confirmation bias. It's findings answer the research question: How do multicultural life experiences, measured in various stages of foreign experience (extensive travel, past experience, current experience), effect personal judgement and decision making, especially regarding widely understood biases like status-quo bias, anchoring, and confirmation bias?

To answer the research question a survey was created replicating parts of widely cited studies on status-quo bias and anchoring effect and using a university case study to test for confirmation bias. Results showed that multicultural life experiences, measured in various stages of foreign experience, have no statistically significant effect on the status-quo bias, but do significantly affect both the anchoring effect as well as confirmation bias. In the case of the anchoring effect, this paper found that a current foreign experience subdues the reliance on an anchor when giving answers, while a previous experience strengthened the reliance. Both no experience as well as travel showed no difference and fell in-between current and past experience. Confirmation bias showed similar trends, with the difference that all multicultural life experiences were found to be susceptible to the confirmation bias than having no foreign experience at all. Current experience was found to be most susceptible, while past experience came closest to possessing no experience at all. Extensive travelling fell in-between current and past experience. The findings were analysed in light of various scientific theories and it was hypothesised that cultural adjustment or acculturation strategies are the likeliest mediator behind this finding. Individuals who are currently abroad acculturate to their environment in such a way that they rely more on their own intuitions and knowledge when faced with decisions, while repatriates or individuals with a past foreign experience go through a second acculturation and adjustment phase which may lead to stronger questions of identity and subsequent a greater reliance on the opinion and/or information from others in their environment. Extensive travellers do not experience these acculturation and adjustment periods and hence show similar results as individuals without foreign experience. The differences between the groups in confirmation bias might further be explained and mediated by threat rigidity, in which current experience and travel are more likely to stick to

their decisions as they are similarly “stuck” Limitations of the study, predominantly in the responses for independent variables in the survey, were acknowledged and recommendations for further research were given. The effects of multicultural life experiences on anchoring effect and confirmation bias found in this dissertation should be tested further and incorporate full scale versions of the widely accepted test for these decision-making biases while also explicitly testing for adjustment patterns and acculturation strategies as mediators.

In such this dissertation has furthered the field of research regarding both multicultural life experiences as well as decision-making biases. It has added another dimension to the understanding both of the effects of multicultural life experiences on individuals on a subconscious level as well as adding another factor that needs to be taken into consideration for research on cognitive biases, which seem to be affected also by a cultural identity variable. Most intriguingly however this paper has shown that multicultural life experiences in their various phases can have widely varying effects on individuals and that some advantages gained in one phase can be reverted, indeed even inverted, once an individual enters into a different phase in their life. This theory might not only explain the findings in this dissertation but could potentially affect other dependent variables that have so far not been researched with this condition in mind.

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Appendix

Survey

Thank you for agreeing to participate in this research study on decision making for an academic dissertation at Católica Lisbon School of Business and Economics in Portugal. Your participation in this study is highly valued and will contribute to our understanding about various processes and influences underlying our daily decisions.

The following survey should take you no more than 10-15 minutes of your time. All answers are completely anonymous and will only be used in accordance with the research for the academic dissertation.

Please click on the "arrow" on the bottom right of your screen to begin with the survey.

Start of Block: Decision Making Bias -> Status Quo Bias

Imagine: Having just completed your graduate degree in the United States, you have four job offers in hand. Your choices are (pick one):

- Job A: Midwest, low prestige company, moderate salary, very good chances of promotion
- Job B: west coast, low prestige company, high salary, good chance of promotion
- Job C: east coast, very prestigious company, high salary, fair chance of promotion
- Job D: west coast, prestigious company, moderate salary, good chance of promotion

Imagine: You are currently employed at Job A in the Midwest of the United States. Recently, you have been approached by colleagues at other companies with job opportunities. Your choices are (pick one):

- Remain at Job A: Midwest, low prestige company, moderate salary, very good chances of promotion
- Job B: west coast, low prestige company, high salary, good chance of promotion
- Job C: east coast, very prestigious company, high salary, fair chance of promotion
- Job D: west coast, prestigious company, moderate salary, good chance of promotion

Start of Block: Decision Making Bias - Status Quo Bias 2

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Imagine: As chief of the governor's task force, you are considering options for increasing the capacity of the state's prisons. There are four alternatives (pick one).

- Build a new prison at Town A (sparsely settled) to house 1500 prisoners at a cost of \$140 million
 - Build a new prison in Town B (where the population is densely settled) to house 2000 prisoners at a cost of \$150 million
 - Build a new prison at Town C (sparsely settled) to house 2000 prisoners at a cost of \$200 million
 - Build a new prison in Town D (where the population is densely settled) to house 1000 prisoners at a cost of \$80 million
-

Imagine: As chief of the governor's task force, you are considering options for increasing the capacity of the state's prisons. There are four alternatives (pick one).

- Expand the current prison at Town A (sparsely settled) to house 1500 prisoners at a cost of \$140 million
 - Build a new prison in Town B (densely settled) to house 2000 prisoners at a cost of \$150 million
 - Build a new prison at Town C (sparsely settled) to house 2000 prisoners at a cost of \$200 million
 - Build a new prison in Town D (densely settled) to house 1000 prisoners at a cost of \$80 million
-

Start of Block: Decision Making Bias - Status Quo Bias 3

Imagine: The National Highway Safety Commission is deciding how to allocate its budget between two safety research programs: i) improving automobile safety (bumpers, body, gas tank configurations, seatbelts) and ii) improving the safety of interstate highways (guard rails, grading, highway interchanges, and implementing selective reduced speed limits). It is considering four options (pick one):

- Allocate 70% to auto safety and 30% to highway safety
 - Allocate 30% to auto safety and 70% to highway safety
 - Allocate 60% to auto safety and 40% to highway safety
 - Allocate 50% to auto safety and 50% to highway safety
-

Imagine: The National Highway Safety Commission is reassessing the allocation of its budget between two safety research programs: i) improving automobile safety (bumpers, body, gas tank configurations, seatbelts) and ii) improving the safety of interstate highways (guard rails, grading, highway interchanges, and implementing selective reduced speed limits). Currently,

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the commission allocates approximately 70% of its funds to auto safety and 30% of its funds to highway safety. Since there is a ceiling on its total spending, its options are (pick one):

- Maintain present budget amounts for the programs
- Decrease auto program by 40% and raise highway program by the same amount
- Decrease auto program by 10% and raise highway program by the same amount
- Decrease auto program by 20% and raise highway program by the same amount

Start of Block: Decision Making Bias - Anchoring Effect

Which of the following two options is a better estimate of the length of the Mississippi river?

- 200 km
- 20,000 km

Please provide an exact estimate of the length of the Mississippi river (in km)

Upon completion the "Lakhta Center" (or "Gazprom Tower") in Saint Petersburg, Russia, will be the tallest building in Europe. Which of the following two options is the best estimate of the height of the "Lakhta Center"?

- 400 m
- 700 m

Please provide an exact estimate of the height of the "Lakhta Center" (in meter)

Marcus Aurelius, an Emperor of the antique Roman Empire, died in which year (pick the option you think comes closest)

- 50
- 300

Please provide an exact estimate of the year in which Marcus Aurelius died

Start of Block: Status Quo Bias - Confirmation Bias

Imagine the following scenario (it is very important that you read the entire text before taking a decision):

You are the head of a racing team about to compete in the last race of a very important season. If your team does well, and your driver is confident he can win, finishing the race would

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provide your team with a lot of sponsorships and a financially good position to start the next season with. The team is still very young, you only started it two years ago, and you had to put all your own money into it to get to this point. A lot of things are at stake, both for your and the team, to finish well in this race.

Lately your engine had some issues and in several competitions it failed during the race. Tom, your chief mechanic, has compiled the statistics and come up with the following: *"In comparison with some of the other teams, we have done extremely well this season. We have finished 62.5% of the races, and when we finished we were in the top five 80% of the time. Our rate of blown engines is 29%, but we are running fast, so we have to expect some difficulties. I am not happy with the engine problems, but I would take the risk to race and win over dropping out any day."*

Your engine mechanic Paul is guessing that the engine problems are related to the air temperature. He argues that cold weather affects the expansion rates between the head and the block of the engine, damaging the head gasket and causing the engine to fail. The weather forecast for the race predicts low temperatures but otherwise clear skies, nevertheless Paul has a bad "gut feeling" about racing today and doubts the engine will make it without damage.

Tom did not agree with Paul and had data showing that the engine failures are unrelated to the outside temperature (see graph below). He points out that gasket failures happened at all temperatures and relies on his 20 years experience in the racing industry to believe that it all comes down to luck. He tells you that "In racing, you are pushing the limits of what is known. You cannot expect to have everything under control. If you want to win, you have to take risks."

The race is coming closer and the team is waiting for your decision whether to race or to drop out. If you finish the race and can beat the competition your team will be get a very important sponsorship for the next season and no longer have to worry about your financial position. That is as long as the engine doesn't fail. If you have another failed engine you are back at square one and will lose your existing sponsorships without which the team will not be able to compete next season.

Of course you can also drop out of the race. You are not sure if your sponsors would still support you if you'd drop out, but without the risk of bad press over another failed engine maybe you could find new sponsors and somehow manage to enter the race again next season.

How would you decide?

- Race
 - Drop out
-

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How confident are you about your decision?

- Extremely confident
 - Somewhat confident
 - Neither confident nor unconfident
 - Somewhat unconfident
 - Extremely unconfident
-

Continuing from the previous information about the racing decision:

You're calling Paul again, your engine mechanic, to talk over the engine failures. When the team was formed you hired Paul because he is the typical "gas station mechanic." His fingernails are permanently blackened by grease and his coveralls never stay clean for more than two minutes on Saturday mornings. Paul had been knocking around the professional circuit for ten years after dropping out of school at sixteen to follow drag racing. Although he lacks the sophisticated engineering training that was getting more common in racing, he does know racing engines like no other.

When Paul answers the phone he tells you: "The way I see it, the turbo-pressure during warm-up -- in conjunction with the different expansion rates for the head and block -- is doing a number on us."

"But Paul", you reply, "we have chewed this over before. How do you know this is the problem? When we ran at Riverside the temperature was 24 degrees and we still the lost gasket and engine."

I am not sure what happened at Riverside." Paul replies. "I am not sure that temperature is the problem, but it is the only thing I can figure out. It is definitely the gaskets that are blowing out and causing the engine to go."

You hang up the phone and wonder if you should race despite Paul's gut feeling or drop out. Tom had all the data gathered and could not see a relation between the outside temperature and the engine failures. But Paul has been one of the most valuable members of your team and you know of no one else who knows more about racing engines than him.

How will you decide now?

- Race
 - Drop out
-

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How confident are you about your decision?

- Extremely confident
- Somewhat confident
- Neither confident nor unconfident
- Somewhat unconfident
- Extremely unconfident

Start of Block: 10 Item Big Five

How well do the following statements describe your personality?
I see myself as someone who...

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
...is reserved	-	-	-	-	-
...is generally trusting	-	-	-	-	-
...tends to be lazy	-	-	-	-	-
...is relaxed, handles stress well	-	-	-	-	-
...has few artistic interests	-	-	-	-	-
...is outgoing, sociable	-	-	-	-	-
...tends to find fault with others	-	-	-	-	-
...does a thorough job	-	-	-	-	-
...gets nervous easily	-	-	-	-	-
...has an active imagination	-	-	-	-	-

Start of Block: General Information

Age

- Under 18
 - 18 - 24
 - 25 - 34
 - 35 - 44
 - 45 - 54
 - 55 - 64
 - 65 - 74
 - 75 - 84
 - 85 or older
-

Gender

- Male
 - Female
 - Other
-

Education

- Less than high school
 - High school graduate
 - Vocational diploma
 - Undergraduate degree
 - Postgraduate degree
 - Doctorate
-

Employment

- Employed full time
 - Employed part time
 - Unemployed looking for work
 - Unemployed not looking for work
 - Retired
 - Student
 - Disabled
-

Marital Status

- Married
 - Widowed
 - Divorced
 - Separated
 - Never married
-

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Ethnicity

- White
 - Black or African American
 - American Indian or Alaska Native
 - Asian
 - Native Hawaiian or Pacific Islander
 - Mixed Ethnicity
 - Other
-

Nationality

Nationality

▼ Afghan ... Zimbabwean ~ Zimbabwean

Second Nationality (if applicable)

Second Nationality

▼ Afghan ... Zimbabwean ~ Zimbabwean

Does any member in your close family (parents, siblings, spouse, kids) have a different nationality than you?

- Yes
 - No
-

If so, which member in your close family has a different nationality from yours? (More than one answer can be selected)

1. Parent
 2. Sibling(s)
 3. Spouse
 4. Kid(s)
-

How many languages do you speak fluently? (You're either a native speaker or speak the language on a very proficient level, e.g. European Language Framework C1)

- 1
 - 2
 - 3
 - 4
 - 5 or more
-

Start of Block: Foreign Experience

The Relationship Between Multicultural Life Experiences and Decision-Making Biases

Have you ever lived abroad or travelled for a prolonged period of time (at least 3 months continuous travel)?

- Currently living abroad
- Lived abroad
- Prolonged travel (for example backpacking)
- Never lived abroad or travelled for a long time

Skip To: End of Survey If Have you ever lived abroad or travelled for a prolonged period of time (at least 3 months continu... = Never lived abroad or travelled for a long time

Skip To: End of Survey If Have you ever lived abroad or travelled for a prolonged period of time (at least 3 months continu... = Prolonged travel (for example backpacking)

What is/was the reason for you living abroad? (More than one answer can be selected)

5. Immigration to another country
6. Work-related expatriation (e.g. international programmes from your employer; missionary work; military postings etc.)
7. Study abroad

Please list all countries you have lived in beginning with the most recent one. Indicate the time spent there in months (example: If you have lived in the United States for the past 4 years but are originally from Mexico you'd list "United States, 48 months"; If you studied in Barcelona for an exchange semester you'd list "Spain, 6 months"). If you have lived in more than 5 countries, only list the 5 countries you've spent most time in.

- Most recent country, duration
- 2nd country, duration (if applicable)
- 3rd country, duration (if applicable)
- 4th (if applicable) _____
- 5th (if applicable) _____

A Third Culture Kid is someone who moves to another country with their parents and spends time growing up in a different culture from their home culture. Based on that definition, do you think you are a Third Culture Kid?

- Yes
- Not sure
- No

Start of Block: Block 3 - Ward and Kennedy

The Relationship Between Multicultural Life Experiences and Decision-Making Biases

Please indicate **how similar** you feel in terms of **your identity** compared to people from your **home country** and from your **host country** (if you've been to several host countries pick the one you feel had the most impact on you)

	None at all	A little	A moderate amount	A lot	A great deal
Home country	-	-	-	-	-
Host country	-	-	-	-	-

Please indicate **how similar** you feel in terms of **your worldview** compared to people from your **home country** and from your **host country** (if you've been to several host countries pick the one you feel had the most impact on you)

	None at all	A little	A moderate amount	A lot	A great deal
Home country	-	-	-	-	-
Host country	-	-	-	-	-

Please indicate **how similar** you feel in terms of **your values** compared to people from your **home country** and from your **host country** (if you've been to several host countries pick the one you feel had the most impact on you)

	None at all	A little	A moderate amount	A lot	A great deal
Home country	-	-	-	-	-
Host country	-	-	-	-	-

To which country did you refer when thinking about your home country?

Home Country

▼ Afghanistan ... Zimbabwe

To which country did you refer when thinking about your host country?

Host Country

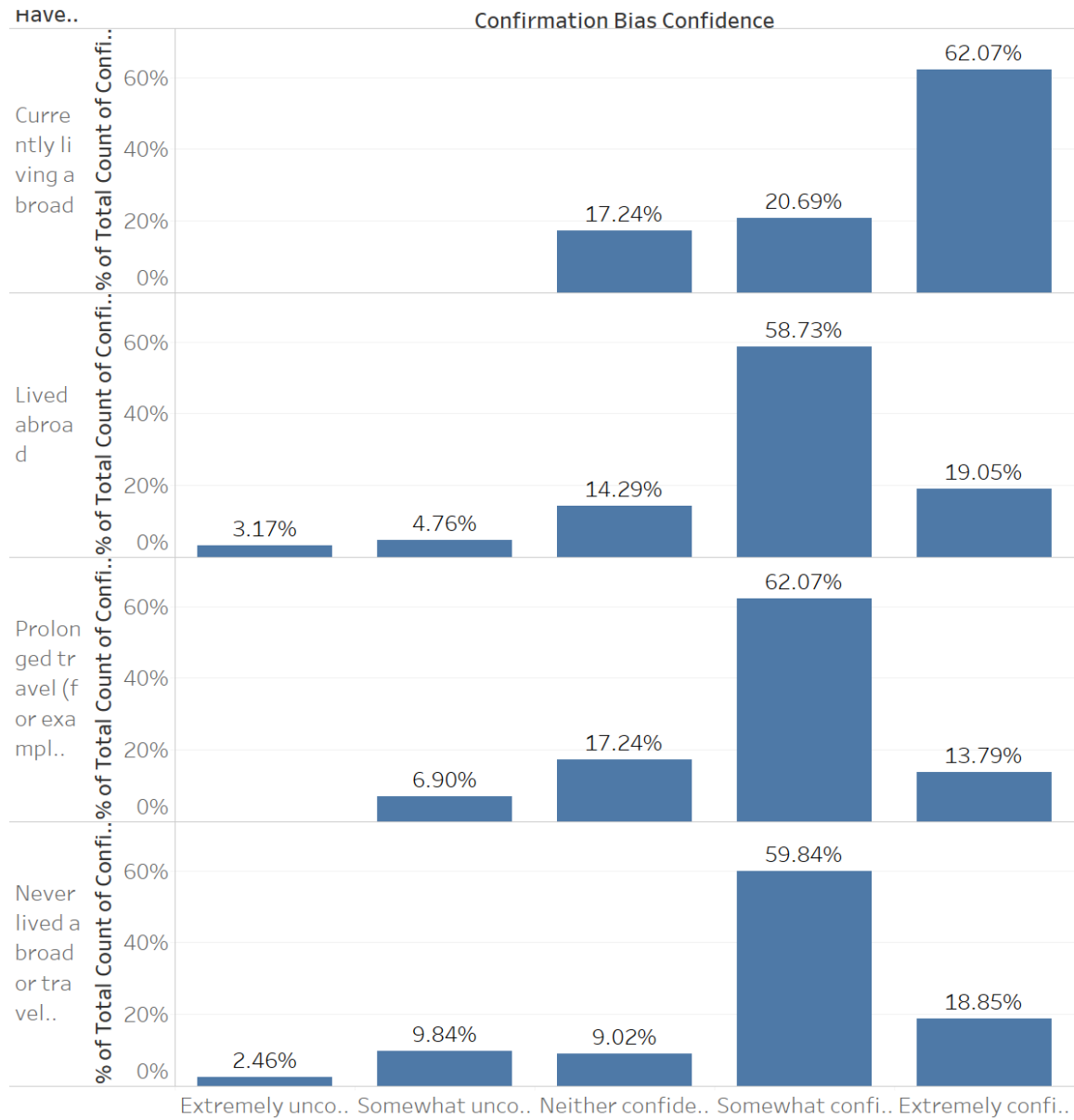
▼ Afghanistan ... Zimbabwe

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Tables Confidence CB

Question 1:

Confirmation Bias Confidence



Question 2:

Confirmation Bias* Confidence

