



**T. C.
PAMUKKALE ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ
YABANCI DİLLER EĞİTİMİ ANABİLİM DALI
İNGİLİZ DİLİ EĞİTİMİ BİLİM DALI
YÜKSEK LİSANS TEZİ**

**AN INVESTIGATION INTO THE FOREIGN LANGUAGE EFFECT
IN DECISION MAKING AND JUDGMENT**

Tolga ZEYBEK

Denizli – 2021

T. R.
PAMUKKALE UNIVERSITY
INSTITUTE OF EDUCATIONAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGE EDUCATION
ENGLISH LANGUAGE TEACHING PROGRAM
MASTER'S THESIS

AN INVESTIGATION INTO THE FOREIGN LANGUAGE EFFECT
IN DECISION MAKING AND JUDGMENT

Tolga ZEYBEK

Supervisor

Asst. Prof. Dr. Filiz RIZAOĞLU

YÜKSEK LİSANS ONAY FORMU

Bu çalışma, Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalı'nda jürimiz tarafından Yüksek Lisans Tezi olarak kabul edilmiştir.

İmza

Başkan: Prof. Dr. Demet Yaylı

Üye: Dr. Öğr. Üyesi Fidel Çakmak

Üye: Dr. Öğr. Üyesi Filiz Rızaoğlu (Danışman)

Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü Yönetim Kurulu'nun/...../.....
tarihi ve/..... sayılı kararı ile onaylanmıştır.

Prof. Dr. Mustafa BULUŞ

Enstitü Müdürü

ETİK BEYANNAMESİ

Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü'nün yazım kurallarına uygun olarak hazırladığım bu tez çalışmada; tez içindeki bütün bilgi ve belgeleri akademik kurallar çerçevesinde elde ettiğimi; görsel, işitsel ve yazılı tüm bilgi ve sonuçları bilimsel ahlak kurallarına uygun olarak sunduğumu; başkalarının eserlerinden yararlanılması durumunda ilgili eserlere bilimsel normlara uygun olarak atıfta bulunduğumu; atıfta bulunduğum eserlerin tümünü kaynak olarak gösterdiğimi; kullanılan verilerde herhangi bir tahrifat yapmadığımı; bu tezin herhangi bir bölümünü bu üniversitede veya başka bir üniversitede başka bir tez çalışması olarak sunmadığımı beyan ederim.



Tolga ZEYBEK

To my beloved parents

ACKNOWLEDGEMENTS

I would like to express my gratitude and appreciation to my supervisor Asst. Prof. Dr. Filiz Rızaođlu, for her immeasurable support and guidance throughout my master's education, for giving me the opportunity and making it possible to participate and present in international seminars.

I would also like to thank the thesis committee members, Prof. Dr. Demet Yaylı and Asst. Prof. Dr. Fidel akmak for their valuable time, feedback, and guidance; it improved the qualities of this thesis a lot. I am also grateful to Prof. Dr. Turan Paker, Assoc. Prof. Dr. Recep Arslan, Asst. Prof. Dr. Selami Ok and Asst. Prof. Dr. Cađla Atmaca for providing and sharing their experience and knowledge in the field of English teaching during my master's education.

I owe a special thanks for the support from my parents, my brother, family, colleagues, and friends; they motivated me every day to finish this thesis. All of this would not be possible without all my previous English teachers, especially Dr. Ralf Siebert, who has awakened my interest and passion for the English language.

ÖZET

Karar Verme ve Yargılarda Yabancı Dil Etkisi

ZEYBEK, Tolga

Yüksek Lisans Tezi , Yabancı Diller Eğitimi ABD,

İngiliz Dili Eğitimi Bilim Dalı

Tez Danışmanı: Dr. Öğrt. Üyesi Filiz RIZAOĞLU

Ocak 2021, 84 Sayfa

Karar verme, tüm insanların her gün gerçekleştirdiği önemli bir konudur. Eğitim geçmişi, sosyo-ekonomik durum veya kültürel yönler gibi karar verme sürecini etkileyebilecek belirli etmenler vardır. Bu araştırma, yabancı dil kullanımının ikidillilerin karar verme sürecini etkileyip etkilemediğini anlamaya amaçlayan üç çalışmadan oluşmaktadır. Tezin amaçları (1) *yetişkin tekdilli Türkçe konuşanların ve geç ardıl ikidilli konuşanların İngilizce veya Türkçe dilinde sunulan ikilemlerle ilgili farklı kararlar verip vermediklerini*, (2) *yetişkin Türkçe-Almanca eşzamanlı iki dillilerin, İngilizce, Almanca veya Türkçe dilinde sunulan ikilemlerle ilgili farklı kararlar verip vermediklerini ve (3) yetişkin Türkçe-İngilizce geç ardıl ikidillilerin ana dillerinde veya ikinci dillerinde sunulan gündelik ahlaki ikilemlerle ilgili farklı kararlar verip vermediklerini* anlamaktır.

Üç nicel çalışmanın verileri, çoğu devlet üniversitesinde İngilizce öğretmenliği okuyan öğrencilerden oluşan toplam 628 kişiden (Çalışma 1, $N = 275$; Çalışma 2, $N = 63$; Çalışma 3, $N = 290$) toplanmıştır. Ayrıca, ikinci çalışmanın katılımcıları çokdilli bir gruptan oluşmaktadır. Katılımcıların varsayımda dayalı ahlaki ikilemlere nasıl tepki vereceklerini araştırmak için trolley ikilemleri kullanılmıştır. Önceki çalışmalar, ikilemler yabancı dilde sunulduğunda klasik trolley ikilemine kıyasla köprü ikileminde faydacı tepkilerin arttığına işaret etmektedir. Bu çalışmada da, yabancı dilde sunulan köprü

ikilemine verilen faydacı yanıtlarda artış; ancak bu fark istatistik olarak anlamlı değildir. Gündelik hayatta karşılaşılan ahlaki ikilemlerde ise katılımcılar dilden bağımsız olarak, sosyal olarak uzak bireyler yerine sosyal olarak yakın bireylerin dahil olduğu ikilemlerde daha yüksek oranda egoist (özgecil olmayan) tepkiler vermiştir. Yabancı dilde sunulan ikilemlerde, kadın katılımcılar, sosyal açıdan uzak kişilerin olduğu ikilemlere kıyasla, sosyal açıdan yakın kişilerin olduğu ikilemlerde daha egoist tepkiler verirken, erkek katılımcılarda bu tür bir farklılık görülmemiştir. Bununla birlikte, üç çalışma genelinde ahlaki ikilemlerle ilgili kararlarda önemli düzeyde bir yabancı dil etkisi bulunamamıştır.

Anahtar Kelimeler: Karar Verme, Yabancı Dil Etkisi, Ahlaki Yargı

ABSTRACT

An Investigation into the Foreign Language Effect in Decision Making and Judgment

ZEYBEK, Tolga

Master's Thesis in Foreign Language Education,

English Language Teaching

Supervisor: Asst. Prof. Dr. Filiz RIZAOĞLU

January 2021, 84 Pages

Decision-making is an important issue that all human beings make every day. There are certain aspects that may influence the decision-making process, such as the educational background, the socio-economic situation, or cultural aspects. This investigation comprises three studies which observe aims to understand whether the use of a foreign language affects bilinguals' decision-making process. More specifically, the aims of the thesis are to understand if *(1) adult monolingual Turkish speakers and late sequential Turkish-English bilinguals make different decisions in moral dilemmas presented in English or in Turkish, (2) adult Turkish-German simultaneous bilinguals make different decisions in moral dilemmas presented in German, Turkish, or English and (3) if adult late sequential Turkish-English bilinguals make different decisions related to everyday moral dilemmas in their native or second language.*

The data of the three quantitative studies were collected from a total of 628 people, (Study 1, $N = 275$; Study 2, $N = 63$; Study 3, $N = 290$), consisting mostly of English language teaching students at a state university. In addition, a group of multilingual speakers participated in the second study. We used the trolley dilemmas to ask the participants how they would react to the hypothetical moral dilemmas. Previous work illustrates that in contrast to the classical trolley dilemma, in the footbridge dilemma the rate of utilitarian (consequentialist) responses increases when it is presented in a foreign language. In the present study, this increase in the rate of utilitarian responses to the footbridge dilemma in the foreign language was also observed; however, the difference

was not statistically significant. As for the everyday moral dilemmas, the participants made a higher rate of egoistic (as opposed to altruistic) responses to dilemmas where socially close individuals, rather than socially distant individuals were involved, regardless of the language. Female participants made a higher rate of egoistic responses in socially close dilemmas in comparison to socially distant dilemmas, in the foreign language. This trend was not found in the male group. In both languages, the participants made a higher rate of altruistic decisions than that of egoistic decisions in dilemmas involving socially close and socially distant relationship. However, the present study did not find evidence for a clear foreign language effect across three studies.

Key Words: Decision Making, Foreign Language Effect, Moral Judgment

TABLE OF CONTENTS

YÜKSEK LİSANS ONAY FORMU	iii
ETİK BEYANNAMESİ	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
ÖZET	vii
ABSTRACT	ix
TABLE OF CONTENTS	xi
LIST OF TABLES	xiii
LIST OF FIGURES	xv
CHAPTER I: INTRODUCTION	1
1.1. Background of the Problem	1
1.2. Statement of the Problem	3
1.3. Research Questions	3
1.4. Purpose of the Study	3
1.5. Significance of the Study	4
1.6. Limitations of the Study	5
1.7. Definition of Terms	5
CHAPTER II: REVIEW OF LITERATURE	7
2.1. The Foreign Language Effect and Emotionality	7
2.2. The Impact of the Foreign Language on Decision Making	9
2.3. The FLE and Moral Judgments	11
2.4. The FLE and Everyday Moral Dilemmas	19
CHAPTER III: METHODOLOGY	22
3.1 Research Design	22
3.2. Setting and Participants of the Study	22
3.2.1. Setting and Participants - Study 1	22
3.2.2. Setting and Participants - Study 2	23
3.2.3. Setting and Participants - Study 3	24
3.3. Data Collection Instruments	25
3.3.1 Moral Dilemma Questionnaire - Study 1	25

3.3.2 Moral Dilemma Questionnaire - Study 2.....	26
3.3.3 Everyday Conflict Situations (EMCS) Scale - Study 3	27
3.4. Data Collection Process	28
3.4.1. Data collection - Study 1.....	28
3.4.2. Data collection - Study 2.....	29
3.4.3. Data collection - Study 3.....	29
3.5. Data Analysis.....	29
3.5.1. Data Analysis - Study 1	29
3.5.2. Data Analysis - Study 2	30
3.5.3. Data Analysis - Study 3	30
CHAPTER IV: RESULTS	32
4.1 Results - Study 1	32
4.2 Results - Study 2.....	36
4.3. Results - Study 3	37
CHAPTER V: DISCUSSION.....	41
5.1. Discussion - Study 1	41
5.2. Discussion - Study 2	42
5.3. Discussion - Study 3	44
CHAPTER VI: CONCLUSION, SUGGESTIONS, AND IMPLICATIONS.....	46
6.1. Conclusion.....	46
6.2. Suggestions and Implications of the Study	47
REFERENCES.....	49
APPENDICES	56
APPENDIX I	56
Personal Information- Language Information Form.....	56
APPENDIX II	58
Decision Making Survey (English, Turkish and German)	58
APPENDIX III.....	61
Everyday Moral Conflict Situations (EMCS) Scale – English and Turkish	61
APPENDIX IV.....	68
Approval of the Ethics Committee.....	68
PERSONAL INFORMATION (CV)	69

LIST OF TABLES

Table 2.1.1 <i>Summary of Key Studies Supporting Foreign Language Effect in Moral Dilemmas</i>	16
Table 2.1.2. <i>Summary of Key Studies Not Supporting the Foreign Language Effect in Moral Dilemmas</i>	19
Table 3.1.1. <i>Participant Information - Study 1</i>	22
Table 3.1.2. <i>The Bilingual Participants' Self-Rated English Proficiency on a Scale from 0-4 for Study 1</i>	23
Table 3.2.1. <i>Participant Information - Study 2</i>	24
Table 3.2.2. <i>Participants' Self-Rated English Proficiency on a Scale from 0-4 for Study 2</i>	24
Table 3.3.1. <i>Distribution of the Participants based on the Language of the Survey</i>	24
Table 3.3.2. <i>Mean and Standard Derivation (in Parentheses) of Participants' Self-Rated Proficiency on a Scale from 0-4 for English for Study 3</i>	25
Table 3.4.1. <i>Outline of the Research Methodology</i>	31
Table 4.1.1 <i>Descriptive Statistics of the Moral Dilemma Questionnaires (N = 275)</i>	32
Table 4.1.2. <i>Chi-Square Comparisons Among the Three Groups for Each Dilemma (N = 275)</i>	33
Table 4.1.3. <i>Post Hoc Test Analysis for the Control Dilemma</i>	33
Table 4.1.4. <i>Chi-Square Results for the Monolingual Group based on Gender for Each Dilemma (N = 102)</i>	34
Table 4.1.5. <i>Chi-Square Results for the Bilingual Turkish-Survey Group based on Gender for Each Dilemma (N = 88)</i>	34
Table 4.1.6. <i>Chi-Square Results for the Bilingual English-Group based on Gender for Each Dilemma (N = 85)</i>	35
Table 4.1.7. <i>Chi-Square Results for the Monolingual Survey Group when the Classical Dilemma is Asked first (N = 102)</i>	35
Table 4.1.8. <i>Chi-Square Results for the Bilingual Turkish-Survey Group when the Classical Dilemma is Asked first (N = 88)</i>	35

Table 4.1.9. <i>Chi-Square Results for the Bilingual English-Survey Group when the Classical Dilemma is Asked first (N = 85)</i>	36
Table 4.2.1. <i>Descriptive Statistics of the Moral Dilemma Questionnaire Responses</i>	36
Table 4.2.2. <i>Fisher’s Exact Test Analysis for each Dilemma</i>	37
Table 4.3.1. <i>Everyday Moral Dilemma Scale Percentage Scores</i>	38
Table 4.3.2. <i>Mixed ANOVA Summary Table for Everyday Moral Dilemma Scale Results</i>	38
Table 4.3.3. <i>Mixed ANOVA Results for the English Survey Group</i>	39
Table 4.3.4. <i>Mixed ANOVA Results for the Turkish Survey Group</i>	40

LIST OF FIGURES

Figure 1. Percentages of consequentialist choices in Study 1 for each dilemma.....34

Figure 2. Percentages of consequentialist choices in Study 2 for each dilemma.....37

CHAPTER I: INTRODUCTION

This chapter explains the background of the study by stating its problem, purpose, significance, limitations, definition of terms and also the research questions themselves.

1.1. Background of the Problem

Making moral judgments is a complex process that human beings make. The psychological and social environment of each individual influences this particular process. Research shows that the language of the moral judgments can influence the decisions that the participant makes, some moral scenarios encourage the participant to make consequentialist responses (deliberate “head” thinking) while other scenarios, usually those where the participant is actively involved in the action, encourage the deontological response (“heart” thinking) (Geipel, Hadjichristidis & Surian, 2015, p. 2).

It is possible that we would make certain decisions differently if we thought in a different language (Costa, Foucart, Hayakawa, Aparici, Apesteguia, Heafner & Keysar, 2014). This phenomenon is described as the foreign language effect (FLE). Previous studies provide information that we may make different decisions in scenarios where our emotions play an important role (Cipolletti, McFarlane & Weissglass, 2015; Costa et al., 2014; Geipel et al., 2015; Hayakawa, Tannenbaum, Costa, Corey & Keysar, 2017). In these studies, it is argued that bilingual people tend to make decisions that are more logical if they read and answer questions in their second language (L2). This might be due to the possibility that bilinguals do not have a strong emotional bond with their L2 compared to their mother tongue. This can be seen in the study conducted by Geipel et al. (2015), where bilingual participants gave a utilitarian/consequentialist answer (maximizing the good of the majority at the expense of harm for the minority on a particular situation) (Greene, Morelli, Lowenberg, Nystrom & Cohen, 2008) to dilemmas based on morality questions in their L2, which implies that they would do an act of ruthlessness for the benefit of the majority. As Cavar and Tytus (2017) argue in their study, globally this phenomenon has a wide range of implications. In international companies or organizations like the NATO or United Nations people make decisions that are not in their first language (L1) very frequently; those decisions could be different than the decisions that people would make in their L1.

The foreign language effect has also been evidenced in cognitive biases, such as the loss aversion bias (i.e., preferring to avoid losing rather than acquiring equivalent gains). Native Korean speakers were reported to be more likely to bet on a coin in situations

presented in English, suggesting that people tend to make more risky decisions when giving answers in the L2 (Keysar, Hayakawa, & An, 2012). In another bias, the causality bias (i.e., the thought of two events being related when they are not), native speakers of English and Spanish were asked to do a standard contingency learning task to detect causal illusions. Remarkably, those who completed the task in their foreign language could detect that the given events were causally unrelated (Díaz-Lago & Matute, 2018).

A considerable amount of research has gathered evidence for the foreign language effect, yet some studies such as Bialek, Paruzel-Czachura and Gawronski (2019) and Cavar and Tytus (2018) do not document L2-related decision-making differences as their participants' L2 is not dominant in comparison to their L1. The uncertainty in this topic makes it worth researching since its results may vary.

Therefore, it is important to work on this phenomenon, and especially with the current interest in foreign language learning, to see what impact speaking more languages can have on decision-making. The foreign language effect might be of a special concern for international companies or institutions, where many decisions are taken daily in an L2. Similarly, in research carried out in L2 contexts, questionnaires or interviews might be performed in an L2, which might influence the results.

Currently, the majority of the foreign language effect studies have focused on decision making in the case of moral dilemmas (Brouwer, 2019; Cavar & Tytus, 2017; Corey, Hayakawa, Fourcart, Aparici, Botella, Costa & Keysar, 2017; Costa et al., 2014; Geipel et al., 2015). Other types of dilemmas, such as everyday dilemmas might be less influenced by the foreign language effect; however, little is known about such situations.

The aim of this research is to explore the foreign language effect in late bilingual Turkish-English speakers' decision-making and compare the results with that of the previous studies. There are several studies indicating that a foreign language effect may exist to varying degrees in decision-making (Corey et al., 2017; Costa et al., 2014). There is still much controversy in the results of moral decision-making studies; therefore, we need more evidence from diverse bilingual populations and from different decision-making situations. In order to fill this gap, the present study employed morality-based and everyday moral dilemmas. It is hoped that this study will contribute to the field of bilingualism research.

1.2. Statement of the Problem

It is of great value to understand the foreign language effect and its impact on moral decision-making. Previous studies have suggested that there might be a foreign language effect in the moral decision-making processes that may exhibit different impacts on the outcome of the decisions that we have made while gaining information through reading, watching, or listening in our L2. Especially morality- or emotion-based questions tend to lead people to make decisions that they normally would not do in their L1. It is necessary to find out if this phenomenon exists in different bilingual populations and in different types of dilemmas.

1.3. Research Questions

1. To what extent do late sequential Turkish-English bilinguals make utilitarian or deontological decisions in moral dilemmas presented in their L1 or in L2? (Study 1)
2. To what extent do monolingual and bilingual speakers of L1 Turkish differ in terms of utilitarian vs. deontological responses in moral dilemmas in their L1? (Study 1)
 - 2.1. To what extent do female and male participants make utilitarian or deontological decisions in moral dilemmas presented in their L1 or L2?
 - 2.2. To what extent do the participants' decisions on moral dilemmas change when a positive language expression is used?
3. To what extent do Turkish-German simultaneous bilinguals make utilitarian or deontological decisions in moral dilemmas in L1 Turkish, L1 German, and in L2 English? (Study 2)
4. To what extent do late sequential Turkish-English bilinguals make altruistic or egoistic decisions in everyday moral dilemmas presented in their L1 or in L2? (Study 3)

1.4. Purpose of the Study

The current growth of language learning brings a lot of advantages for speakers of different languages. People who are bilingual can not only watch movies in a different language, speak to tourists in their native language or read magazines in another language, but they can also think and make decisions in a different language. Several studies suggest that human beings tend to make different decisions when reading a moral-dilemma

questionnaire that is not in their mother tongue; more specifically, they tend to make more rational and somewhat egoistic decisions.

The purpose of this study, therefore, is to investigate whether bilingual speakers make different decisions when facing moral dilemmas in their L2 in comparison to their L1; if that is the case, it is also worth investigating how Turkish-English bilinguals respond to moral dilemmas. This descriptive study hopes to contribute to the field of decision making in bilinguals and the foreign language effect, which is an under-researched topic within the Turkish speaking context. Whether a similar foreign language effect might be observed in more realistic, everyday moral dilemmas is another concern addressed in the present study.

1.5. Significance of the Study

The foreign language effect on decision-making is a relatively novel research topic, yet considerable research has addressed it in recent studies. Whether test-takers' or decision makers' decisions are influenced by the use of a foreign language requires further evidence from different contexts.

To our knowledge, previous studies have not addressed the foreign language effect within the context of Turkish-English bilinguals and multilinguals. Research on previously under-researched bilingual populations might be beneficial for testing the foreign language effect in moral dilemmas in a different linguistic and cultural context and allows for a comparison of the results obtained from L2 speakers of other languages.

Furthermore, this study will compare simultaneous Turkish-German bilingual speakers living in Germany, people who are multilingual and speak English fluently, to late sequential Turkish-English bilinguals living in Turkey. This comparison will allow us to understand to what degree the foreign language effect can be observed in multilinguals. Most of the previous literature has focused on the foreign language effect in bilinguals; however, there is a dearth of related research on multilinguals.

Besides moral based dilemmas, this study also compares how the Turkish-English bilingual participants react to everyday moral dilemmas. These are situations that everyone can encounter daily and therefore seem to be more realistic when compared to moral dilemmas such as the well-known 'trolley dilemma' or the 'footbridge dilemma' (Thomson, 1985) that are also made use of in this study.

1.6. Limitations of the Study

The participants of this study have a range of backgrounds, language knowledge and overall life experiences. Since measuring the participants' proficiency level was not possible due to time constraints, their proficiency levels are based on self-report. Therefore, their reported language proficiency might not reflect a standardized concept of proficiency, which is a limitation of the study.

Additionally, in the first and second study, we presented the participants with three dilemmas for practicality concerns and time constraints. Reading a dilemma requires a long time, especially for the second language readers; in order to prevent fatigue, a short list of dilemmas was preferred based on previous studies (Cipolletti et al., 2016; Geipel et al., 2015). A final limitation of the study is that in Study 2, the number of the participants is low in comparison to the other two studies. Whether similar results would be obtained in a larger sample should be tested in future studies.

1.7. Definition of Terms

The definitions of terms used in the study are as follows:

Decisions: sets of goals that are predetermined and that are a result of a cognitive process. Decisions are deliberate choices to think in a certain way under the given circumstances (Al Tarawneh, 2012; Duncan, 1973).

Decision making: “the process of identifying and selecting from possible solutions for a problem according to the demands of the situation” (Al Tarawneh, 2012, p.3).

Moral judgment: having an approving or disapproving feeling towards an emotional action (Greene & Haidt, 2002).

Foreign language effect: a phenomenon that shows results differently when they are presented in the foreign language of each individual (Vives, Aparici & Costa, 2018).

Bilingualism: having proficiency in two languages that can allow the speaker to function and appear as a speaker of two languages. It is the ability to use two languages (Rampton, 1990).

Sequential bilingual: bilingual people/children who have fairly acquired the L1 before starting to learn the L2, which is usually at the time the children start to go to school. This

is often to be seen at immigrant-children; they speak a different language at home and by the time they go to school, they start to learn another language (Paradis, 2010).

Simultaneous bilingual: bilingual people/children who learn two languages at the same time at home before the age of three, often from the beginning of their lives (Paradis, 2010).

Proscriptive rules: set of rules that people obtain from their community and culture in terms of behavior (Bartels, 2008).

Deliberated thinking: careful, slow, and measured thinking through cost-benefit analysis (Bartels, 2008).

Utilitarianism (Consequentialism): the theory, which is focused on maximizing the good of each participant in a particular situation (Driver, 2009).

Deontological ethics: the idea that actions should be judged on whether the action is right or wrong, instead of the consequences of the action (Kant, 1785).

Altruism: accepting moral values for the happiness of others instead of fulfilling personal interests (Singer et al., 2019).

Egoism: fulfilling personal interests instead of caring for other people (Singer et al., 2019).

CHAPTER II: REVIEW OF LITERATURE

This chapter highlights important literature regarding decision making and the foreign language effect. There are two major sections in this chapter. The first major section deals with the foreign language effect and emotionality. The second major section addresses decision-making. The minor sections introduce the different types of dilemmas and how the use of foreign languages affects the decisions made, the importance of emotions while making moral judgments in a foreign language and the processes that human beings go through while making decisions.

2.1. The Foreign Language Effect and Emotionality

People make conclusions through thinking about principles that are thoughtful for them, which will lead them to the best scenario for each decision made (Costa et al., 2014). Therefore, specific information, like the literal language of the problem cannot change the impact of the results. According to this idea, as long as someone understands the problem or the moral dilemma, its outcome will not change; however, there are studies reporting evidence that the selected language may play a role in decisions related to moral dilemmas. Simply understanding the dilemma in one language will not guarantee that the results will always be the same in another language. Therefore, this impact may change the way we perceive the language; this phenomenon is described as the 'Foreign Language Effect' (FLE) (Costa et al., 2014). According to psychological research, the usage of foreign languages may bring about certain differences with it; it is suggested that people tend to make more utilitarian decisions and therefore more rational decisions not only in a foreign language but also in a different dialect (Keysar et al., 2012; Miozzo, Navarette, Ongis, Mello, Giroto, & Peressotti, 2020).

It is argued that thinking in a foreign language could contribute to making wiser decisions because cognitive biases seem to be blocked or reduced (Costa et al., 2014). *The reduced emotionality account* (Geipel et al., 2015; Keysar et al., 2012) argues that the messages that human beings receive in the mother tongue tend to be processed more sensitively when compared to the foreign language (Pavlenko, 2012; Polonioli, 2018). According to this line of thinking, proficient L2 users tend to understand the meanings of emotion-loaded words; however, they do not seem to experience all of the impacts (Corey et al., 2017). In addition, bilinguals seemingly have a higher bond of emotions in L1 in comparison to their L2 (Harris, Aycicegi, & Gleason, 2003). To exemplify, people might

not experience the full emotional force when lying in their L2 which makes lying easier in the L2 when compared to the L1 (Caldwell-Harris, & Aycicegi-Dinn, 2009).

The reason for the FLE might be that many people tend to learn their L2 in a classroom environment (Ivas, Costa & Duñabeitia, 2016). This environment is a more emotionally neutral setting to learn the L2 and therefore cannot establish high levels of emotional bond with their L2 when compared to their L1. The classroom environment cannot mirror the interactions that people have in the outside world with their L1 (Costa et al., 2014; Iacozza et al., 2017). This “emotional distance” and “psychological distance” exhibit the reduced emotionality that people have in a foreign language situation (Costa et al., 2014; Keysar et al., 2012). It seems that bilinguals choose to articulate their emotionality in their L1 instead of their L2, whether the emotions are positive or negative (Belcher & Connor, 2001). The full effect of the emotions seems to display itself in the L1 more effectively, which might be due to the emotional distance that bilinguals have with their L2 (Dylman & Bjärtå, 2019). Besides showing emotions, perceiving emotions also seems to be of higher intensity in the L1 of the bilingual; when bilinguals hear a commercial or a slogan, they feel it more effectively in their L1 in comparison to their L2 (Puntoni, De Langhe & Van Osselar, 2009). In addition, the age of the acquisition of the L2, exposure to the L2, the context and the proficiency level of the bilingual in the L2 may also influence the possible effects that the L2 can have (Pavlenko, 2012).

The assumption that people might have more calculated thoughts rather than emotional reactions when speaking in the L2 may indicate reduction of emotions; however, it may also indicate the increase of deliberation (Hayakawa et al., 2017). This idea forms the basis for *the cognitive enhancement hypothesis* (Costa et al., 2014), which states that the FLE arises due to an analytic improvement in thinking (Cipolletti et al., 2016; Keysar et al. 2012). People tend to make slower and more precise decisions in their L2 when dealing with a problem according to this hypothesis. Since people automatically think longer than they would normally do, this helps people to block intuitive decisions that human beings sometimes make, which might suggest that the FLE leads people to think twice before making decisions (Costa, Vives & Corey, 2017).

Word choice may influence how we perceive the FL, negative words tend to be less embodied in the L2 than in the L1; therefore, it is possible to state that there is less emotional conflict in the L2 when acquiring negative information (Corey et al., 2017; Wu & Thierry, 2012).

The two major perspectives make different suggestions concerning the rationale behind the FLE. While the reduced emotionality account proposes that the FLE will only take place when emotions play a role in the dilemmas or questions, the cognitive enhancement hypothesis states that the FLE refers to a wider range of questions and dilemmas, which are protruded by intuitive responses (Vives et al., 2018). However, in previous research, most of the tests that were used to find out about the FLE had emotion-based questions; therefore, it is unclear which idea is empirically supported. As a matter of fact, previous research supposes that the FLE occurs in foreign languages that people have learnt later in life, because emotional triggers seem to be lacking in that learning process (Hayakawa et al., 2017). However, we shall note that these explanations are not exclusive; it is necessary to mention that the FLE changes depending on the importance of the current subject for the decision maker. Thus, its meaning for the individual can affect its outcomes as well (Costa et al., 2014).

It is often mentioned that deontological responses are obtained through nothing else but emotionality; however, it is also argued that they are dependent on proscriptive rules (Nichols & Mallon, 2006). Proscriptive rules that people gain throughout their lives from their community or their culture in general guide them in terms of moral and immoral behavior and therefore allow human beings to judge whether a case or a dilemma is right or wrong. Nevertheless, it can be argued that moral judgment and the emotions that emerge during decision making are flexible processes (Cavar & Tytus, 2017).

Emotional intensity can lead the participant to think differently than they would usually do. The participant of the test also has to make a decision as to whether it is worth breaking the previously mentioned proscriptive rules they learnt throughout their lives. They can decide through cost-benefit analysis to save more people or just save one in the footbridge dilemma (saving the lives of five by pushing a stranger off a bridge who will be hit by an incoming train) or trolley dilemma (saving the lives of five by pushing a button that makes the rails of a train change, so one person will be hit by the train instead of five) (Cavar & Tytus, 2017). Deliberated thinking makes people more rational in doing the cost-benefit analysis than people who follow their guts; therefore, deliberated thinkers make more utilitarian choices than the others (Bartels, 2008).

2.2. The Impact of the Foreign Language on Decision Making

Human beings always make decisions, which can be about trivial matters, e.g., what to eat or what to wear, or about important matters, e.g., to undergo a surgery or not.

Information to make a decision is gathered through reading and listening; therefore, in order to obtain more effective results, it is crucial to understand how decision-making processes work (Costa et al., 2014).

Decision makers have certain drives to reach a decision; whereas one is intuitive and tends to happen automatically without thinking, the other is planned and deliberative (Evans, 2008). Under this view, those drives and processes are always operating and do not always show the same weight on each of the processes, but vary depending on the language and situation. In some cases, we react spontaneously and intuitively, and sometimes we slow down to think deeply before making a decision. Those types of processes are separated into two; Type 1 processes tend to happen unconsciously, automatic, and rapid, whereas Type 2 processes are more planned, slow, and well thought out (Kahneman, 2003).

Besides the different processes that decision making has, there are also different explanations for the FLE, such as *blunted deontology* and *heightened utilitarianism* (Hayakawa et al., 2017, p. 1388). Foreign language influences moral choices by blocking emotional regulations of Type 1 features, e.g., when people hear taboo words in an L2, they seem to be provoked less emotionally than when they hear taboo words in their L1, this theory is known as blunted deontology (Harris et al., 2003).

The ability to sacrifice one human for five, like in the trolley dilemmas, is increased in the L2 because emotional processing seems to be decreased (Geipel et al., 2015). Moral decisions are influenced by the use of L1 through fostering the features of deliberative thinking of Type 2 thinking, this idea is called heightened utilitarianism (Hayakawa et al., 2017). In comparison to L1, responding in an L2 seems to be more difficult and therefore, it contributes to greater thinking in analytics in the L2 (i.e., metacognitive disfluency) (Oppenheimer, 2008). Through this, the participants seem to make more thoughtful Type 2 utilitarian judgments as it is more probable that L2 speakers would decide to save larger number of people (Hayakawa et al., 2017).

It is also argued that the FLE affects the outcome of the decisions, whether they are intuitive or deliberated (Costa et al., 2014). The FLE is separated into three different domains: (1) *reduction of loss and risk aversion*, (2) *reduction of illusory correlations*, and (3) *prompting of more utilitarian choices than native language processing* (Costa et al., 2017, p. 147).

The first domain is related to losing, gaining, and risking. Studies have shown that if the outcome tends to be more positive, people will try their luck more often by risking

more in their L2 than they would in their L1, e.g., if a question is about gambling and people have a chance to make 2\$ out of 1\$, people will often take this risk if it is presented in their non-native language (Costa et al., 2014; Keysar et al., 2012). The feeling of risking and the possible benefits are increased when dealing with anything in the foreign language (Hadjichristidis, Geipel & Savadori, 2015). People also tend to make decisions that are more rational and bring more heuristic biases while deciding in a foreign language (Dylman & Champoux-Larsson, 2020).

Secondly, the reduction of illusory correlations changes our behavior to events that happen in the world. The *hot hand fallacy* (Gilovich, Vallone, & Tversky, 1985), practically is the expectation of a positive outcome after several positive outcomes, even if the events are not dependent on each other. If a dilemma is presented by making use of the hot hand fallacy in the foreign language, it is likely that the outcome will reduce the effect of this fallacy (Gao, Zika, Rogers & Thierry, 2015).

The last FLE domain is about morality. When the famous footbridge dilemma, where the decision maker can save five peoples' lives by sacrificing the life of one person by pushing him/her out of a bridge, is presented in the L2, people are more willing to do this. In other words, they make choices that are more utilitarian in the L2. Extensive studies (Brouwer et al., 2019; Cavar & Tytus, 2017; Cipolletti et al., 2015; Corey et al., 2017; Costa et al., 2014; Geipel et al., 2015) carried out in different places around the world suggest that this effect is not culture specific. Using the foreign language, therefore, encourages people to break social and moral norms, and make more risky decisions slightly more often compared to when responding to the same dilemma in their L1 (Costa et al., 2014). The footbridge dilemma is a personal dilemma, since the participant is deciding purposefully whether to push someone off the bridge or not. For this dilemma, the FLE is present when making the decision in the foreign language (Brouwer, 2020). However, it is worth mentioning that the FLE is not only restricted to different languages but also it is observed in dialects. Miozzo et al., (2020) tested the FLE in Venetian, Bergamasque and Italian; the results indicate that the utilitarian decision is significantly higher when doing the footbridge dilemma in either of the dialects, which are the informal 'languages' in comparison to Italian, which is the formal language.

2.3. The FLE and Moral Judgments

A considerable amount of recent research suggests that people who make decisions and judgments in their foreign languages tend to make decisions that are more rational.

This has been usually tested through moral dilemmas, which are situations where the participant is in a moral conflict; she/he is morally has to do either of the two possibilities that the dilemma gives, while it is not possible to do both (De Haan, 2001). Avoiding biases is a major defining point for the foreign language effect (FLE) (Keysar et al., 2012). Furthermore, it is mentioned that in questionnaires where they can choose between utilitarian and deontological responses, participants tend to make more utilitarian decisions in moral dilemmas, implying that they make more risky decisions than they usually would not do in their native language (Geipel et al., 2015). It has also been proposed that people systematically make choices that they would not do in their mother tongue, when responding to morality-based contexts in their L2 (Costa et al., 2017).

It is also argued that bilinguals tend to be less worried about morality when facing morality-based dilemmas in a nonnative language, and thus have reduced deontological tendencies in a nonnative language. It is discussed that foreign language has an influence on how we respond to moral dilemmas, yet the reason for that is not clear; the effect is driven either through sensitivity of the utilitarian sense, the deontological sense or through general action inclinations (Bialek et al., 2019).

In morality-based dilemmas, where test-takers can save, but also sacrifice the lives of other people, they can either make a *deontological* response or a *consequentialist* (utilitarian) response. The deontological response is given when the participant follows the moral norms; by taking this response they would not harm innocent people. The participant thinks about what is right or wrong on the situation of the dilemma instead of looking at possible consequences that the situation may bring (Kant, 1785). Previous research on bilingualism usually adopts Kant's view as deontological; therefore, throughout thesis this perspective will be adopted. The consequentialist response tries to maximize the outcome for more people, e.g., saving five people instead of one person is better (Geipel et al., 2015). In scenarios where morality plays a significant role and where the character in the dilemma is actively involved, it is seen that consequentialist judgments were chosen more often (Greene, Cushman, Stewart, Lowenberg, Nystrom & Cohen, 2009). The results of these responses are gathered through dilemmas.

The well-known trolley dilemma states a specific situation where the participant can decide over the future of others: he/she is in a train station and sees a train moving fast towards five people who are on the rails in the direction of the train. On the other rail, there is only one person. The participant has the possibility to switch the rails so five people will survive, yet one person who was standing on the other rail will be sacrificed. However, if

the participant decides not to change the switch, the rail will also not change and therefore five people will be killed by the train (Thomson, 1985, p. 1395). For most people, it is acceptable and common to change the switch of the rails and therefore save five people by letting the train kill one (Geipel et al., 2015).

The other commonly used dilemma for testing the impact of FLE on moral decisions is the footbridge dilemma. This time, the participant stands on a bridge overlooking the train rails. She/he sees a train moving fast towards five people who are on the rails. On the bridge next to the participant, there is a fat person. If the participant decides to push the man off the bridge, the train will stop before it reaches the other five people, but the bulky man will die. On the other hand, the participant can decide not to do anything, so the five people on the rails will die (Cushman, Young & Hauser, 2006). In comparison to the trolley dilemma, it seems to be unacceptable to push the man, although the same amount of people will be saved and sacrificed (Geipel et al., 2015).

In both abstract dilemmas we can decide on who will live and who will die, yet the difference can be seen when looking at the emotionality of the decision-making process. On the one hand, for the footbridge dilemma, touching and pushing a stranger actively makes it harder to block emotional processes. On the other hand, for the trolley dilemma, we can decide from a distance without actually facing the people on the rails, which makes it easier to decide on whether to switch the button or not (Cipolletti et al., 2016).

One explanation for this phenomenon is that decision makers think based on moral principles (Dwyer, 2009; Huebner, Dwyer & Hauser, 2009; Mikhail, 2007). Another explanation argues that people make use of different moral judgment processes in each dilemma (Greene, Nystrom, Engell, Darley & Cohen, 2004; Haidt, 2007). We can therefore assume that one route is based on clear emotional thoughts, whereas the other is based on cognitive processes that are controlled. Whereas emotional thinking is considered to elicit a deontological response, deliberate thinking is considered to elicit a consequentialist response (Geipel et al., 2015). The different responses will be triggered according to the emotional load of dilemmas. The footbridge dilemma, where we actively push someone from a bridge, has a strong emotional bond; therefore, it is expected to yield mostly deontological responses. On the other hand, the trolley dilemma, where we just have to push a switch to sacrifice one life in order to save five lives, has a low emotional bond; that is why, most people are expected to give consequentialist responses to it (Geipel et al., 2015). Additionally, research shows that people with emotional deficiencies (e.g., people with anxiety disorders or bipolar disorder) and people suffering from brain damage

tend to give utilitarian decisions to emotional dilemmas. (Koenigs, Young, Adolphs, Tranel, Cushman, Hauser & Damasio, 2007; Mendez, 2005).

Besides the positive effects of the FLE, some research focuses on possible negative aspects (see Volk, Köhler, & Pudelko, 2014). The FLE uses up cognitive resources, according to the *brain-drain model*, which deters self-regulation and decision making for the participant of the dilemma. However, self-regulation can also be supported by the FL (Klesse, Levav, & Goukens, 2015) and reduce susceptibility to heuristically caused biases (Keysar et al., 2012). It is argued that the rational thinking that people tend to acquire through the FLE might help people to think more creatively (Hadjichristidis, Geipel, & Surian, 2016). Through this effect, people tend to be more certain and clearer towards innovative technologies (Hadjichristidis et al., 2015); participants tend to make higher beneficial judgments when asked to estimate which technologies are risky and beneficial for society in their L2; the FLE might lead people to take more ‘smart’ risks (Hadjichristidis et al., 2016). Additionally, it is reported that people tend to accept gambles, since they look more for the possible gains, when asked in the FL, although usually people would decline gambling, when asked in the L1, because they tend to care more for the possible losses in gambling (Costa et al., 2014).

Neurological evidence has also supported the idea that personal and impersonal dilemmas make a difference in terms of deciding over them. During the presentation of the personal footbridge dilemma, brain areas that are related to emotionality are activated, whereas in impersonal dilemmas those areas show less activation (Cavar & Tytus, 2017).

The majority of previous FLE research has adopted moral dilemmas as a testing ground (Brouwer, 2019; Cavar & Tytus 2017; Cicolletti et al. 2016; Corey et al. 2017; Costa et al. 2014; Geipel et al. 2015; Hayakawa, 2017; Muda, 2020). As being the first study to use moral dilemmas such as the trolley or footbridge dilemma and make connections with the FLE, Costa et al. (2014) provides evidence for FLE. The data were collected from a variety of participants who have a different L1 (English, Korean and Spanish) and L2 (Spanish, English, French, and Hebrew), who were all late learners of their foreign language. Their questionnaire consisted of the footbridge and switch dilemma, but also a self-rated proficiency test for their foreign language. On a Likert-scale (1-5), the participants rated their foreign language proficiency as 2.9 on average for all four skills combined. The results indicate a significant difference in the footbridge dilemma; the L2 percentage for the utilitarian decision seems to be much higher than the utilitarian decisions made in the L1. Both groups, the L1 and L2 participants made a high percentage

of utilitarian choices for the switch dilemma. Therefore, when comparing the switch and footbridge dilemma, it is possible to state that the switch dilemma had more utilitarian choices in both of the languages. However, the footbridge dilemma only seems to have a high utilitarian choice when giving answer to the dilemma in the L2.

Cipoletti et al. (2016) applied dilemma questionnaires to 160 students in a state university in the USA to students in two different languages (Spanish and English). While some students took the tests in English, their L2, some took it in their mother tongue. The vast majority of the participants (82.4%) who took this questionnaire in their native language stated that they would change the rail's direction by pushing the button on the trolley case, but only a small portion (20.6%) stated that they would push the man actively from the bridge on the footbridge situation. Of the participants who took the test in their non-native language, 80.4% responded that they would switch the button in the trolley dilemma, whereas 47.8% stated they would push the man off the bridge in the footbridge dilemma. In this particular study, no evidence was found for the FLE in the trolley dilemma; however, the footbridge dilemma provides evidence for the FLE. The reason for the differences in both dilemmas might be that in the footbridge case, the participant has to see and touch the stranger; emotional processes seem to be activated and therefore the participant often does not decide to push the stranger and therefore does not make the utilitarian decision. On the other hand, when doing the footbridge dilemma in a foreign language, the emotional processes seem to be deactivated since most of the participants lack emotional processes with their L2 when compared to their L1 (Greene et al., 2008).

Corey et al. (2017) also made use of both trolley moral dilemmas. The participants of this study consisted of 211 university students living in Spain, to whom English is typically the second language. The participants were asked to self-report their English proficiency on a Likert-scale where participants can rate their English knowledge for each skill from 1 (low) to 7 (high). The students rated their overall knowledge for English as 5.05. The findings of both trolley and footbridge dilemma, have significant differences. The participants made decisions that are more utilitarian when the dilemma is presented in English.

Another study that made use of the trolley and footbridge dilemmas indicates evidence for the FLE on the footbridge dilemma (Geipel et al., 2015). In this study, the foreign language was German or English, and the participants' native language was Italian. The moral-dilemma questionnaires were administered to 105 university students. The participants in this study would push the man off the bridge more frequently when the

dilemma is presented in their foreign language when compared to their native language. The trolley dilemma indicated no FLE, as in the previous studies (Geipel et al., 2015).

Besides reading, listening to the dilemmas was tested in Brouwer (2020), where 154 Dutch-English bilinguals were asked to make a decision in personal and impersonal dilemmas. The participants rated their English proficiency as advanced, which is 4 on a Likert scale of 1 to 5. The results indicate a difference only for the personal dilemma (the footbridge dilemma): the participants made decisions that are more utilitarian for personal dilemmas in the L2 when compared to their L1. Another result of this study is the difference between listening to or reading a dilemma; the participants seem to make more utilitarian decisions when listening to ($M = 55\%$) dilemmas rather than reading ($M = 34\%$) them. Consequently, it can be stated that the participants made more rational decisions when listening instead of reading.

In a more recent study on FLE, Driver (2020), tested the FLE in 280 English-Spanish sequential bilinguals. Both Spanish bilinguals living in the US and English bilinguals living in Spain contributed to this study. The participants had passed an L2 proficiency exam and had an advanced level in the particular L2. Similar to the previous studies, the trolley dilemma and the footbridge dilemma were made use of. The results indicate a significant difference in the utilitarian choice in the L2 in the footbridge dilemma. However, the results for the utilitarian decision of the classical trolley dilemma seem to be balanced in both the L2 and L1.

Table 2.1.1. *Summary of Key Studies Supporting Foreign Language Effect in Moral Dilemmas*

	Language (L1/L2)	Instrument*	Findings
Costa (2014)	English/Spanish Korean/English English/French Spanish or English/Hebrew	Moral dilemma survey ($n=2$)	-For the footbridge dilemma, the L2 participants made significantly more utilitarian choices than L1 participants -Both, L1 and L2 participants made decisions that are more utilitarian in trolley dilemma, indicating no significant difference for this dilemma.
Geipel (2015)	Italian/German or English	Moral dilemma survey ($n=3$)	-L2 participants made more utilitarian decisions in the footbridge dilemma but not in the trolley dilemma.
Cipolletti (2016)	English/Spanish Spanish/English	Moral dilemma survey ($n=3$)	-The language of the questionnaire made no difference in the results of the trolley dilemma. -Participants made more utilitarian decisions in the footbridge dilemma, stating that they would push the person off the bridge, when responding in L2.

(Continue on the next page)

Table 2.1.1. *Summary of Key Studies Supporting Foreign Language Effect in Moral Dilemmas* (Continued from previous page)

	Language (L1/L2)	Instrument*	Findings
Corey (2017)	Spanish/English	Moral dilemma survey ($n=2$)	-Participants made more utilitarian decisions in the foreign language for both trolley and footbridge dilemmas.
Brouwer (2019)	Dutch/English	Moral dilemma survey ($n=6$)	-In Experiment 2 of this study, the participants listened to the dilemmas; the results show a difference in the footbridge dilemma where L2 participants made more utilitarian decisions than L1 participants. -For the trolley dilemma, participants of L1 made more utilitarian decisions than the participants of L2.
Driver (2020)	English/Spanish Spanish/English	Moral dilemma survey ($n=2$)	-The participants who took the footbridge dilemma in their L2 said “yes” more often than those who took the questionnaire in their L1. -However, for the trolley dilemma a difference between L2 and L1 was not found.
Brouwer (2020)	Dutch/English	Moral dilemma survey ($n=2$)	-Results of personal dilemmas such as the footbridge dilemma indicate that more utilitarian decisions were made in the L2. -Yet, this cannot be stated for the trolley dilemma where the results of both languages seem to be equal.

* n refers to the number of dilemmas in the survey

Nevertheless, not all studies seem to find significant differences between different language groups. Cavar and Tytus, (2017) used six different moral dilemmas to test the FLE on their participants. One of the dilemmas was the footbridge dilemma. The participants, 60 bilingual Croatians/Germans, had learnt German as their foreign language at around age twenty; the mean age of the group was 36.4 for the German-questionnaire group and 38.2 for the Croatian-questionnaire group. The participants did not have an academic background. The results show that there was a minor difference in the percentage for the utilitarian choices; 23% in speakers of Croatian and 17% speakers of German. Nevertheless, this difference was not found to be statistically significant and therefore do not corroborate the findings of the previously mentioned studies. The lack of evidence for the FLE may have various reasons. The overall higher age of the participants in comparison to other studies might be one reason. The number of the participants may also not be sufficient to find a significant difference.

In Brouwer’s study (2019), highly educated 159 Dutch-English bilinguals were asked to make decisions for the trolley and footbridge dilemma in either of the two languages. On a 5-point Likert scale, the participants were rated to be native-like in Dutch

($M = 4.95$) and advanced in English ($M = 4.02$). The questionnaire was given to the participants in either Dutch or English. Whereas in Experiment 1, where the participants had to read the dilemmas showed no significant difference in utilitarian decisions, Experiment 2 where participants had to listen to the dilemmas showed a significant difference for the footbridge dilemma; L2 participants made more utilitarian decisions than L1 participants. However, no significant difference in utilitarian decisions for the trolley dilemma were demonstrated in either of the two experiments.

The difference between making decisions in the second language and the foreign language is also reported to be noteworthy. Dylman and Champoux-Larsson (2020) suggests that if the foreign language is completely foreign, the FLE can be found more significantly than when the foreign language is commonly used in the setting. To illustrate, since English is commonly used in daily life in Sweden, the FLE cannot be found in English in comparison to other foreign languages, e.g., when comparing Swedish and French in participants whose L1 is Swedish and L2 is French, these two languages indicate a significant difference in utilitarian decisions made by the French-questionnaire group. In addition to this, when the L1 and L2 share linguistic properties, the FLE may not emerge, either.

Another aspect that may have an impact on decisions are the elicitation formats in moral dilemmas. Hayakawa et al. (2017) investigated how different versions of the footbridge dilemma can influence the results. Regardless of the elicitation format, the meaning of the question within its dilemma context tends to remain the same. In her study, there were 200 participants for each of the six experiments. The L1 and L2 vary depending on the experiment, yet only German, Spanish, and English were tested. The results indicate no significant increase in utilitarian decisions made in the foreign language in each of the six experiments across three different elicitation formats. In three experiments a decrease in utilitarian choices were observed when participants gave responses in their L2.

The majority of the previous research tends to make use of text-based questionnaires as their instrument. Muda, Pienkosz, Francis and Bialek (2020) investigated how participants respond to moral dilemmas when presented in an auditory environment. The participants were 165 Polish-English bilinguals, who do not have experience in living in an English-speaking country. The parents of the participants do not speak English as a native language. The participants reported Polish as their native language. The self-proficiency ratings for English were 7.87 on a scale of 1 (low) to 10 (high). The participants of this study seem to make similar decisions when listening to or reading the

dilemmas. No increase in utilitarian decisions was seen when making decisions on the moral dilemmas in the L2 or the L1, neither through listening nor through reading. In addition, the dilemmas used in this study, e.g., the footbridge dilemma, indicate no increase in utilitarian decisions made in the L2 or the L1.

In Table 2.1.2. a summary of studies which do not report evidence for the FLE can be seen.

Table 2.1.2. *Summary of Key Studies Not Supporting the Foreign Language Effect in Moral Dilemmas*

	Language (L1/L2)	Instrument*	Findings
Cavar & Tytus (2017)	Croatian/German	Moral dilemma survey ($n=6$)	-No significant difference in utilitarian choices was found in the footbridge dilemma between L2 and L1.
Hayakawa (2017)	German/English English/Spanish Spanish/English English/German	Moral dilemma survey ($n=1$)	-The different ways of asking the footbridge dilemma has not changed its results since in no experiment a significant difference in utilitarian choices was found for either language.
Brouwer (2019)	Dutch/English	Moral dilemma survey ($n=6$)	-In Experiment 1 of this study, the participants read the dilemmas, indicating no significant difference in utilitarian decisions in L2 and L1.
Dylman (2020)	Swedish/English Swedish/French Swedish/Norwegian Norwegian/Swedish	Moral dilemma survey ($n=2$)	-No FLE can be observed for linguistically similar languages e.g., Swedish/Norwegian or vice versa -No significant difference between Swedish/English participants for the footbridge dilemma. -More utilitarian decisions were made by L2 participants in Swedish/French group.
Muda (2020)	Polish/English	Moral dilemma survey ($n=6$)	- Listening or reading the dilemmas did not make a difference. The participants in both languages made similar results in either of the languages.

* n refers to the number of dilemmas in the survey

2.4. The FLE and Everyday Moral Dilemmas

Moral dilemmas are inspired through the work of famous philosophers like Immanuel Kant, psychologists like Jean Piaget and Lawrence Kohlberg (Singer, Kreuzpointner, Sommer, Wüst, & Kudielka, 2019). Especially in the last decade, several researchers made use of the work and knowledge that were brought to us from these philosophers and psychologists. Common dilemmas such as the footbridge or the trolley dilemma are unlikely to happen in real life situations (Kahane, Everett, Earp, Farias, & Savulescu, 2015), which seem to lack ecological validity (Baumann, McGraw, Bartels, &

Warren, 2014), since the results cannot be transferred and used for real life purposes (Sommer, Rothmayr, Döhnel, Meinhardt, Schwerdtner, Sodian, & Hajak, 2010).

Current studies, therefore, have made use of various everyday circumstances that most people can potentially encounter (Hoffmann, Wisneski, Brandt, & Skitka, 2014), instead of dilemmas where the decision maker is usually in an unrealistic setting (Greene, Sommerville, Nystrom, Darley & Cohen, 2001). The five areas in which the everyday dilemmas have been tested are about caring or harming, being fair or unfair, loyal or disloyal, authority or subversion, and sanctity or degradation (Graham et al., 2011). Honesty has also been added to these dilemmas (Hofmann et al. 2014). Everyday dilemmas are imaginary life situations, in which the decision maker can fulfill a certain moral standard or follow a more selfish art; therefore, we can argue that a decision can be altruistic and kind, as opposed to egoistic (Singer et al., 2019). It is also possible to divide everyday dilemmas into high- and low-emotional dilemmas, as in Starcke et al. (2011) and Rosen et al. (2015).

Another significant point for analyzing the results of the dilemmas, apart from emotions, is the social closeness of the protagonist, i.e., when the dilemma pictures a stranger versus a close relative, people tend to make different decisions. Participants seem to view the situation of the dilemma more negatively when the dilemma involves strangers. Additionally, participants may make egoistic decisions more often and need more time on deciding on the dilemma (Zhan, Xiao, Li, Liu, Chen, Fan and Zhong, 2018). Also noteworthy are the findings about gender; in terms of honesty, female participants tend to be more honest than the male participants; they also tend to make more altruistic decisions than males (Capraro & Sippel, 2017).

Everyday dilemmas seem to be like the moral dilemmas, such as the trolley or the footbridge dilemma since all of these dilemmas deal with morality. The thought of testing everyday dilemmas through questionnaires seem to be similar to moral dilemma testing: to see if the groups of participants for each language decide significantly differently or not and therefore to observe whether the FLE takes place in everyday dilemmas. The difference between the classical dilemmas and the everyday dilemmas is that the contexts of the everyday dilemmas are based on daily life. These are more likely to happen to the participants, when compared to the classical dilemmas. Consequently, the participants may imagine themselves more realistically in everyday dilemmas. If the responses to everyday dilemmas seem to mark significant differences when they are presented in a different language, similar the moral dilemmas used in e.g., Costa et al. (2014) and Corey et al.

(2017), it can be also stated that people not only seem to think differently when faced with the classical trolley and footbridge dilemma but also with everyday dilemmas.

Everyday moral dilemmas were made use of in the study of Singer et al. (2019). The participants for this study consisted of 100 males and 100 females in Germany. In total, 60 everyday dilemmas in English were made use of. After each dilemma, the question “What do I do?” comes up, and two possible decisions are possible: either altruistic or egoistic. The results indicate no significant differences between the responses to socially close and socially distant dilemmas. It is possible to state that gender of the participants did not indicate a difference, either (Singer et al., 2019).

Previous research has not investigated whether altruism and egoism in response to moral dilemmas might be influenced by the FLE in bilinguals. Therefore, these concepts should also be inquired in relation to the FLE.

CHAPTER III: METHODOLOGY

In this chapter the research design, participants and settings, data collection instruments, the data collection process and the analysis procedures are presented. Since the research questions were inquired in three studies with different samples, each component of this chapter is divided into three sections.

3.1 Research Design

All of the three studies are descriptive and comparative studies that make use of quantitative research methodology to analyze the data. This quantitative inquiry gathered information from a wide range of participants from different contexts in order to examine information about language, educational background, and about how the participants react to certain situations known as dilemmas in different languages.

The information gathered from the surveys for all three studies might allow us to see if there are differences in how bilingual and multilingual speakers responded to dilemmas in their native language and in their foreign language, which is English in the present study.

3.2. Setting and Participants of the Study

3.2.1. Setting and Participants - Study 1

The aim of this study was to measure how bilingual people make decisions when compared to monolinguals. The quantitative data of the three groups was collected at a state university in southwestern Turkey, by surveying 173 sequential bilingual English language teaching (ELT) department students and 102 monolingual Turkish and History students (see Table 3.1.1).

Table 3.1.1. *Participant Information- Study 1*

	n	Female	Male	Mean Age (Range)
Bilingual-Turkish	88	61 (69.3%)	27 (30.7%)	21.8 (19-34)
Bilingual-English	85	58 (68.2%)	27 (31.8%)	21.8 (19-34)
Monolinguals	102	53 (52%)	49 (48%)	22.7 (20-52)

The late bilingual group had studied English for 12.5 years on average at the time of data collection. Before starting the ELT department, they entered an institutional proficiency exam measuring listening, language use, reading, writing, and speaking skills and were required to have a score of at least 70 out of 100 (B1-B2 level) in order to start their university education. Due to time constraints, a proficiency test could not be applied, and self-reported proficiency ratings were used; the level for the bilingual participants varied between Intermediate to Advanced (See Table 3.1.2).

Table 3.1.2. *The Bilingual Participants' Self-Rated English Proficiency on a Scale from 0-4 for Study 1*

Skills	Proficiency Level <i>M (SD)</i>
Reading	2.93 (.46)
Writing	2.62 (.54)
Speaking	2.46 (.59)
Listening	2.69 (.61)
General Competence	2.76 (.52)

Only native speakers of Turkish participated in the study. Sixteen students with different L1 backgrounds were removed from the study since their L1 might influence the responses. The remaining participants also reported that they did not stay in a non-Turkish speaking environment for more than a year, which was important for ensuring that cross-linguistic influence was eliminated. Additionally, the bilingual groups received either a Turkish version or an English version of the survey, which was randomly distributed to them.

3.2.2. Setting and Participants - Study 2

The aim of Study 2 is to investigate how Turkish-German bilinguals living in Germany react to English, German, or Turkish moral dilemmas. Germany is known for being home to over three million Turkish people (Federal Statistical Office of Germany, 2017a), whose ancestors moved to Germany in the 1960s-1970s, which makes it a unique multilingual context, for the purposes of this study. People with different educational backgrounds, living in different regions of Germany, were asked to fill in a moral dilemma survey. Each of the participants was given a random language version of the same survey, in either German, English or Turkish (See Table 3.2.1).

Table 3.2.1. *Participant Information - Study 2*

Survey Language	Total (<i>n</i>)	Female (<i>n</i>)	Male (<i>n</i>)	Mean Age (Range)
German	18	11	7	23.55 (18-33)
English	24	14	10	26 (17-49)
Turkish	21	11	10	25.52 (18-45)
TOTAL	63 (100%)	36 (57.14%)	27 (42.86%)	25.14 (17-49)

The selection criteria for this study were that the participants need to be simultaneous bilinguals in Turkish and German and learned English as an additional language. The second language (English) proficiency level of the participants was based on self-reports (See Table 3.2.2). The participants overall reported to have high intermediate to advanced level general proficiency in English. Since the participants were born and lived in Germany and received education in German, their proficiency in German was nativelike.

Table 3.2.2. *Participants' Self-Rated English Proficiency on a Scale from 0-4 for Study 2*

Skills	Group 1* Mean (SD)	Group 2** Mean (SD)	Group 3*** Mean (SD)
Reading	2.61 (.6)	3.16 (.63)	2.66 (.57)
Writing	2.33 (.48)	2.95 (.55)	2.33 (.57)
Speaking	2.22 (.42)	2.83 (.70)	2.14 (.57)
Listening	2.22 (.42)	3 (.72)	2.33 (.48)
General Competence	2.44 (.51)	2.79 (.77)	2.19 (.51)

*Group 1: German-Turkish-English multilinguals who took the survey in German

** Group 2: German-Turkish-English multilinguals who took the survey in English

***Group 3: German-Turkish-English multilinguals who took the survey in Turkish

3.2.3. Setting and Participants - Study 3

This study focuses on 'everyday' moral dilemmas in L1 and L2. The quantitative data was collected by surveying 290 people living in Turkey. Nearly equal number of participants took the English and Turkish versions of the survey (see Table 3.3.1).

Table 3.3.1. *Distribution of the Participants based on the Language of the Survey*

Survey Language	n (%)	Mean Age (Range)
English	150 (51.72%)	24.23 (17- 49)
Turkish	140 (48.28%)	23.53 (19-40)
TOTAL	290 (100%)	23.88 (17-49)

Participants who took the survey ('Everyday Conflict Situations Scale') in English and Turkish seem to have similar proficiency levels for English according to the self-rated proficiency scale. (See Table 3.3.2).

Table 3.3.2. *Mean and Standard Deviation (in Parentheses) of Participants' Self-Rated Proficiency on a Scale from 0-4 for English for Study 3*

Skills	Group 1* <i>Mean (SD)</i>	Group 2** <i>Mean (SD)</i>
Reading	2.96 (.52)	2.97 (.55)
Writing	2.7 (.65)	2.74 (.67)
Speaking	2.56 (.67)	2.69 (.69)
Listening	2.8 (.56)	2.82 (.65)
General Competence	2.82 (.55)	2.86 (.61)

* Turkish-English bilinguals who took the survey in English

** Turkish-English bilinguals who took the survey in Turkish

English language teachers from different places of Turkey and ELT students from a state university in southwestern Turkey participated in the study. They were given the survey in their L1, Turkish or in their L2, English randomly. Five students with different L1 backgrounds were removed from the study since their L1 might influence the responses.

3.3. Data Collection Instruments

The instruments used in all three studies consist of a personal and language information form and dilemma questions. The personal information form consists of questions about gender, age, profession, and education level. In the language information form, the participants were asked to evaluate their English knowledge by rating their four language skills and overall L2 proficiency as native-like, advanced, moderate or beginner. The questions were either in English or Turkish according to the language of the survey that the participants randomly received. The same personal information form was used in all of the three studies. The questionnaire format was selected since it is suitable for describing general characteristics, opinions, and current trends in the sample (Creswell, 2002).

3.3.1 Moral Dilemma Questionnaire - Study 1

The participants were asked to answer three moral dilemmas (see Appendix II), which were given in a counter-balanced order, depending on the received survey version in order to eliminate the chances that one decision can affect the next decision. By doing so,

the moral dilemmas had no specific order, e.g., some participants could get the footbridge dilemma as the first dilemma; others could get the control dilemma as the first dilemma.

“The decision-making survey”, consisting of the three dilemmas that were used in this study are moral dilemmas that are unlikely to happen, yet making a decision on these dilemmas will also reflect how participants would react in that particular situation. In two of the dilemmas, the participant makes choices where they can save five lives by sacrificing one innocent life. In the footbridge dilemma, the respondent is supposed to be actively involved in the situation; in the trolley dilemma, the character in the dilemma makes the decision from a distance. The difference between those dilemmas is that the participant has to actively push the stranger off a bridge, whereas in the latter you can decide from a distance about the future of the strangers.

The third dilemma, the control dilemma, is a rational one where the participant is asked to use simple logic in order to make a decision. The control dilemma was included so it would be possible to check whether the participants were really reading the dilemmas or not. It also marks the reason and purpose of the study.

The dilemmas were taken from the study of Koenigs et al. (2007) and slight language changes were made in their wording. The mean emotion rating for the impersonal classical trolley dilemma was 5.3. while the mean emotion rating reported for the personal and high-conflict footbridge dilemma was reported as 6.0 on a scale from 1 to 7 (Koenigs et al., 2007).

The trolley dilemmas were selected since they were commonly used in previous studies such as Brouwer (2019), Cavar & Tytus (2017), Corey et al. (2017), Costa et al. (2014), Geipel et al. (2015), and Hayakawa et al. (2017) and allow for the comparison of FLE study results in different bilingual populations.

3.3.2 Moral Dilemma Questionnaire - Study 2

The survey used in Study 1 was also adopted in this study (see Appendix II). The survey was available in three different languages, German, English, and Turkish, since the aim is to analyze if there is a difference between the responses of those language groups. The German questionnaire was created by translating the English questionnaire; the translation process was checked by a German-English bilingual and afterward was sent to German speakers to see if the dilemma is fully comprehensible. Due to the pandemic in 2020, all questionnaires were transferred to Google Forms and sent to each of the participants online.

3.3.3 Everyday Moral Conflict Situations (EMCS) Scale - Study 3

This study makes use of ‘everyday moral dilemmas’ that Singer et al. (2019) also use in their research. The original form comprised two parallel forms of the scale, each having 20 dilemmas. Due to practicality concerns and the lack of the opportunity to reach the same participants, only one set was selected to be used as the data collection instrument.

In 20 dilemmas, the participant makes decision on situations that everybody can encounter in daily life. The dilemma situations are related to dimensions of human morality: the moral care/harm, fairness/unfairness, loyalty/disloyalty, and honesty/dishonesty. The dilemmas distinguish between socially close and socially distant situations and elicit altruistic or egoistic responses. In socially close relationship dilemmas, the participant is faced with situations where the characters are close to the participant, e.g., grandmother or a friend. In contrast, the socially distant relationship dilemmas mirror people that are distant to the participant, e.g., a stranger at a train station. The choice of a variety of dilemmas with different people and situations makes the situations more realistic for the participants to encounter in daily life. The full list of the dilemmas is presented in Appendix III. The similarity to reality of the items were rated to be high in the validation study (Singer et al., 2019). Therefore, for the purposes of the present study, the dilemmas in the items were found to be satisfactory in terms of external and ecological validity and they lent themselves well to contrasting the results with that of more abstract and unrealistic trolley dilemmas.

In one dilemma, the waiter forgets to add the last drink to the bill, the participant decides on what they would do: point out the mistake or not say anything at all. These two possible decisions mark either an “altruistic” decision or an “egoistic” (hedonistic) decision. This is a typical everyday moral dilemma that every person can relate to or actually has experienced. Furthermore, it is necessary to mention that the order of the dilemmas was different in the manner of the relationship for the participant; in one dilemma, the character can be their brother; in the other dilemma, the person can be a waiter. Therefore, the importance given for the close or distant relationship that the participant can face while doing the questionnaire is always changeable and cannot be calculated by the participant. In addition, it should be noted that this survey was given to the participants in either English or Turkish randomly.

The translation from English to Turkish was done through back-translation. I translated the survey from English to Turkish directly. A faculty member working at the

English language teaching department translated my translation from Turkish to English again; by doing so, the original and the translated versions could be checked twice in terms of language use and appropriateness. It is noteworthy that some aspects were changed due to cultural reasons, e.g., “a cocktail” was changed into “a drink” and the currency of the dilemmas was changed to Turkish lira (TL) without actually changing the worth, e.g., 20\$ were stated as 20 TL.

Before the actual data collection, 30 monolingual Turkish speakers were asked to complete the Turkish version of the questionnaire, which made it possible to see if the participants had any problems with comprehension of the dilemmas and if the translation was clear. The participants of the pilot administration did not report any difficulties with the comprehension of the items or instructions. The results of this pilot study indicate no significant difference for the socially close and socially distant dilemmas; the participants made 73% altruistic and 27% egoistic decisions in the socially close dilemmas and 76% altruistic decisions and 24% egoistic decisions in the socially distant dilemmas. The KR-20 reliability measurements of were .49 and .48 for the socially close dilemmas in the English and Turkish scales respectively, and .66 and .64 for the socially distant dilemmas in the English and Turkish scales, respectively. The reliability scores were lower than expected, possibly due to the use of the shorter version of the scale. Therefore, we recommend the use of the longer survey version in future studies.

3.4. Data Collection Process

3.4.1. Data collection - Study 1

The surveys were distributed in a state university in southwestern Turkey. The printed survey was two-page long and was distributed to the participants in the class hours. It took about ten minutes to complete the survey. Students who did not want to participate had the right not to fill in the survey. The questionnaires were distributed in several classes. I personally asked for permission in the university by asking each of the professors at the faculty of education to distribute the questionnaires in their classes if they agreed to. The participants received either a Turkish or an English survey for the bilingual groups and a Turkish survey for the monolingual group. After collecting the surveys, each of them was organized to form each of the three groups.

3.4.2. Data collection - Study 2

The data was collected in Germany from the people that fit the intended population of the second study: simultaneous bilinguals in German and Turkish, and learnt English as an additional language later. The data was collected through the traditional pen-and-paper format and also online (after the Covid-19) to reach participants of different socioeconomic, linguistic and educational backgrounds, from working-class people, students and also teachers of different regions in Germany.

3.4.3. Data collection - Study 3

The data needed for this study was collected from February until May of 2020. It should be noted that at the time the data was collected, there was a worldwide pandemic; schools, universities, and any other teaching facilities were shut down, which made it impossible to collect data face to face. Therefore, I needed to change the original plan of collecting data by directly going to different classes at the university to completely doing online surveys. The participation in this questionnaire was on voluntary basis and it was clearly mentioned on the first page of the online survey that the participants have the chance to immediately stop doing the questionnaire without any hesitation whenever they do not want to answer any of the questions. The “Everyday Decision-Making Survey” (see Appendix III) link (either English or Turkish survey) was sent to the people that fit the population: Turkish-English late sequential bilinguals in a southwestern city in Turkey. The original name of the survey was modified so that participants did not guess the purpose of the study and so that they were not influenced by the purpose. Additionally, the participants were asked to send the survey link as to other people as well; through this snowball sampling style more participants were able to complete the questionnaire.

3.5. Data Analysis

In line with the purpose of the study, the quantitative data of the questionnaires (see Appendix II and Appendix III) gathered for the three studies were analyzed through the SPSS 22 package program. The alpha level was set at .05 for the statistical analyses; however, the Bonferroni correction was applied when necessary.

3.5.1. Data Analysis - Study 1

After collecting the data, it was important to include only Turkish-English sequential bilinguals, as these participants mark the selection criteria for this study.

Consequently, 16 participants were removed as these participants have an international background. After the exclusion of these participants, several analyses were run through SPSS 22 package program (see Table 3.4.1). Accordingly, the mean percentages of the participants' utilitarian decisions were compared for each of the dilemma through a chi-square analyses to see if the participant groups have differences between them. Bonferroni correction was applied since a series of chi-square tests was done. Post-hoc analysis was carried out when there is a significant chi-square analysis. Additional chi-square analyses were run to check whether there are between-groups differences in terms of gender, positivity of the language used in the dilemma, and the order of the presented dilemmas.

3.5.2. Data Analysis - Study 2

After the data collection, the results of each of the three questionnaires (German, English and Turkish) were analyzed on SPSS. The first analysis was a contingency table analysis to find the mean percentages of the participants' utilitarian decisions. By finding the percentage of the utilitarian decisions, it was possible to state whether the participants' decisions indicate a difference between each other for each of the three dilemmas. Additionally, a Fisher's exact test was made use of to test if the dilemmas indicate a significant difference or not. The Fisher's exact test was applied since the sample size was small and the expected count for some of the cells was lower than five.

3.5.3. Data Analysis - Study 3

The participants consisted of late Turkish-English bilinguals (English teachers or ELT students), who completed the Turkish or the English questionnaire. The descriptive statistics related to the participants' demographic characteristics (e.g., age and gender) were analyzed. The two groups were also compared in terms of mean percentage of egoistic decisions for the socially close type situations through a 2 (relationship type: social close vs. distant) x 2 (language group: Turkish vs. English) mixed ANOVA. In order to check the normality assumption, the skewness and kurtosis values of each participant group were checked. In each dilemma, the values type ranged between -1/+1, which is acceptable based on Hair, Black, Babin and Anderson (2010). The boxplots, Q-Q plots, and histograms also indicated normality. The equality of variances assumption was also met.

The outline of the research methodology adopted in the three studies is summarized in Table 3.4.1.

Table 3.4.1. *Outline of the Research Methodology*

Research Questions	Instrument	Dependent Variable	Independent Variable	Analysis
1. To what extent do late sequential Turkish-English bilinguals make utilitarian or deontological decisions in moral dilemmas presented in their L1 or in L2? (Study 1)	Moral dilemma questionnaire ($n=3$)	Utilitarian vs. Deontological decisions	Language of questionnaire Gender Positive/Negative Language expression	Chi-square
2. To what extent do monolingual and bilingual speakers of Turkish differ in terms of utilitarian vs. deontological responses in moral dilemmas in their L1? (Study 1)	Moral dilemma questionnaire ($n=3$)	Utilitarian vs. Deontological decisions	Language of questionnaire Gender	Chi-square Post-hoc-tests
3. To what extent do Turkish-German simultaneous bilinguals make utilitarian or deontological decisions in moral dilemmas in L1 Turkish, L1 German, and in L2 English? (Study 2)	Moral dilemma questionnaire ($n=3$)	Utilitarian vs. deontological decisions	Language of questionnaire Gender	Contingency table analysis Fisher's exact test
4. To what extent do late sequential Turkish-English bilinguals' decisions differ in everyday dilemmas presented in their L1 or in L2? (Study 3)	Everyday moral dilemma questionnaire ($n=20$)	Egoistic decisions	Language of questionnaire Gender	Mixed ANOVA

* n refers to the number of dilemmas in the survey

CHAPTER IV: RESULTS

This chapter is about the results of all three studies. The aim of all three studies is to see whether the foreign language effect occurs in each study or not. The data were gathered through questionnaires.

4.1 Results - Study 1

The results of the moral dilemma questionnaires completed by a total of 275 university students are presented in this section. The moral dilemmas aimed to test the possible differences or similarities in participants' decisions on the classical (trolley), bridge and control dilemmas. The descriptive statistics related to the moral dilemma responses are represented in Table 4.1.1 below.

Table 4.1.1. *Descriptive Statistics of the Moral Dilemma Questionnaires (N = 275)*

Dilemma	Decision Options	Monolingual Group- Turkish Survey (n = 102)		Bilingual Group- Turkish Survey (n = 88)		Bilingual Group- English Survey (n = 85)	
		%	n	%	n	%	n
Classical Dilemma	Yes	76.5	78	83	73	67.1	57
	No	23.5	24	17	15	32.9	28
Footbridge Dilemma	Yes	43.1	44	37.5	33	45.9	39
	No	56.9	58	62.5	55	54.1	46
Control Dilemma	Yes	86.3	88	98.9	87	96.5	82
	No	13.7	14	1.1	1	3.5	3

The results of the classical dilemma questionnaire indicate that the majority (76.5%) of the monolingual Turkish group would change the switch for the rails in order to save the life of five people by sacrificing one innocent life; namely, the majority had utilitarian/consequentialist responses. The bilingual group who took the questionnaire in Turkish had a higher percentage of utilitarian responses (83%) than that of the bilingual group who took the questionnaire in English (67.1%).

With regard to the footbridge dilemma, monolingual (43.1%) and both bilingual groups' utilitarian responses (37.5% and 46.9%) were overall lower than those for the classical dilemma. The descriptive statistics did not indicate large between-groups differences; however, the bilingual group who took the questionnaire in English had the highest rate of utilitarian responses.

As for the control dilemma, positive responses ranged between 86-99% in the three groups, which were considerably higher than the responses for the two trolley dilemmas. The monolingual group had the lowest positive response rate in this dilemma type.

In order to understand whether the response rate differences among the groups were statistically significant, chi square tests were run for each dilemma type. The chi-square analyses indicated that there was a significant between-groups difference in the control dilemma (See Table 4.1.2).

Table 4.1.2. *Chi-Square Comparisons Among the Three Groups for Each Dilemma (N = 275)*

Dilemma	χ^2	Df.	<i>p</i>	<i>phi</i>
Classical	5.99	2	.05	.148
Footbridge	1.31	2	.52	.069
Control	14.07	2	.001*	.226

*Bonferroni corrected α : $.05/3 = .0167$

Additionally, the results of the post hoc test for the control dilemma showed that the participants of the monolingual Turkish questionnaire group and the bilingual Turkish questionnaire group made significantly different decisions in the control dilemma (See Table 4.1.3).

Table 4.1.3. *Post Hoc Test Analysis for the Control Dilemma*

Dilemma	Monolingual Group-Turkish Questionnaire	Bilingual Group-Turkish Questionnaire	Bilingual Group-English Questionnaire
Control	.0002*	.0124*	.1615

*Bonferroni corrected α : $.05/3 = .0167$

To sum up the results, overall, the highest rate of utilitarian decisions was made in the control dilemma; the lowest rate of utilitarian decisions was made for the bridge dilemma (See Figure 1).

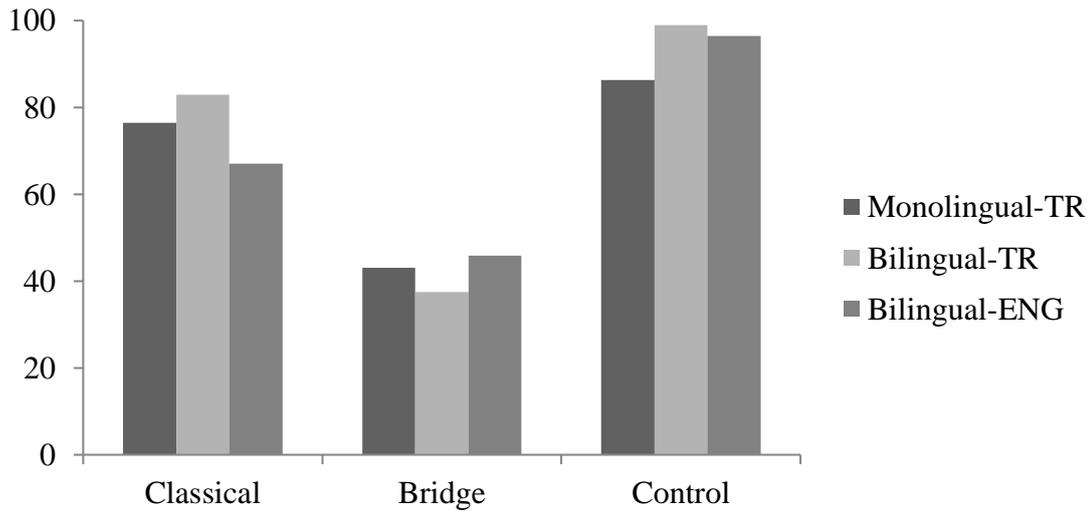


Figure 1. Percentages of consequentialist choices in Study 1 for each dilemma

The results show no significant difference when the dilemmas were asked in a different order, when positive or negative words were used to describe the dilemma, and additionally there was no significant difference for gender.

According to the results of additional chi-square comparisons based on gender, no significant difference between male and female participants was found in the monolingual survey group (See Table 4.1.4).

Table 4.1.4. *Chi-Square Results for the Monolingual Group based on Gender for Each Dilemma (N = 102)*

Dilemmas	χ^2	Df.	<i>p</i>	<i>phi</i>
Classical	.061	1	.805	.024
Footbridge	.119	1	.73	.034
Control	.175	1	.676	.041

*Bonferroni corrected α : $.05/3 = .0167$

According to the results of chi-square comparisons, no significant difference between male and female participants was found in the bilingual Turkish-survey group (See Table 4.1.5).

Table 4.1.5. *Chi-Square Results for the Bilingual Turkish-Survey Group based on Gender for Each Dilemma (N = 88)*

Dilemmas	χ^2	Df.	<i>p</i>	<i>phi</i>
Classical	2.17	1	.141	.157
Footbridge	.004	1	.952	.006
Control	2.285	1	.131	.161

*Bonferroni corrected α : $.05/3 = .0167$

The results of the chi-square test show no significant difference between the participants' gender and their choices for the bilingual English-survey group (See Table 4.1.6).

Table 4.1.6. *Chi-Square Results for the Bilingual English-Group based on Gender for Each Dilemma (N = 85)*

Dilemmas	χ^2	<i>Df.</i>	<i>p</i>	<i>phi</i>
Classical	.301	1	.584	.059
Footbridge	.033	1	.856	.02
Control	.004	1	.953	.006

*Bonferroni corrected α : $.05/3 = .0167$

We also checked whether the order of the trolley dilemmas influenced the response rates. The reason for doing this, is the differences between the classical and the footbridge dilemma; both seem to be similar, yet their differences in emotionality make them different. The order of the dilemmas indicates no significant difference in the responses of the participants for the monolingual group. The participants made similar decisions to the dilemmas when the classical dilemma is asked first or second (See Table 4.1.7).

Table 4.1.7. *Chi-Square Results for the Monolingual Survey Group when the Classical Dilemma is Asked first (N = 102)*

Dilemmas	χ^2	<i>Df.</i>	<i>p</i>	<i>phi</i>
Classical	.019	1	.891	-.014
Footbridge	.269	1	.604	-.051

* α : .05

According to the results of the chi-square test, no significant difference can be observed in the participants of the bilingual Turkish-group regarding the order of the presented dilemmas (See Table 4.1.8).

Table 4.1.8. *Chi-Square Results for the Bilingual Turkish-Survey Group when the Classical Dilemma is Asked first (N = 88)*

Dilemmas	χ^2	<i>Df.</i>	<i>p</i>	<i>phi</i>
Classical	.080	1	.777	-.030
Footbridge	.436	1	.509	.07

* α : .05

The order of the dilemmas indicates no significant difference of the participants for the bilingual English-survey group. The participants made similar decisions on the dilemmas when the classical dilemma is asked first or second language (See Table 4.1.9).

Table 4.1.9. *Chi-Square Results for the Bilingual English-Survey Group when the Classical Dilemma is Asked first (N = 85)*

Dilemmas	χ^2	Df.	<i>p</i>	<i>phi</i>
Classical	2.604	1	.107	.175
Footbridge	1.929	1	.165	-.151

* α : .05

4.2 Results - Study 2

The descriptive statistics for the classical dilemma indicate that all three groups choose the utilitarian (consequentialist) response more often than the deontological response. However, it is worth mentioning that the lowest utilitarian response belonged to the participants who took the Turkish survey, whereas the highest percentage belonged to the group who took the questionnaire in German (See Table 4.2.1).

According to the descriptive statistics of the footbridge dilemma, the lowest percentage of the utilitarian responses was recorded in the Turkish survey group, whereas the English survey group had the highest utilitarian response rate.

According to the descriptive statistics of the control dilemma, it can be stated that all three groups' utilitarian decisions were above 95% (See Table 4.2.1).

Table 4.2.1. *Descriptive Statistics of the Moral Dilemma Questionnaire Responses*

Dilemma	Decision Options	German Survey (<i>n</i> = 18)		Turkish Survey (<i>n</i> = 21)		English Survey (<i>n</i> = 24)	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Classical Dilemma	Yes	94.44	17	76.19	16	87.5	21
	No	5.56	1	23.81	5	12.5	3
Footbridge Dilemma	Yes	33.33	6	28.57	6	54.17	13
	No	66.67	12	71.43	15	45.83	11
Control Dilemma	Yes	100	18	95.24	20	95.83	23
	No	0	0	4.76	1	4.17	1

Despite the response rate differences in the descriptive statistics, according to the Fisher's exact analyses made for each dilemma, no significant differences were found in utilitarian responses among the three participants groups (See Table 4.2.2).

Table 4.2.2. Fisher's Exact Test Analysis for Each Dilemma

Dilemma	χ^2	p
Classical	2.48	.316
Footbridge	3.36	.219
Control	1.02	1.0

*Bonferroni corrected α : $.05/3 = .0167$

To sum up the results, overall, the highest rate of utilitarian decisions was made in the control dilemma; the lowest rate of utilitarian decisions was made for the bridge dilemma (See Figure 2).

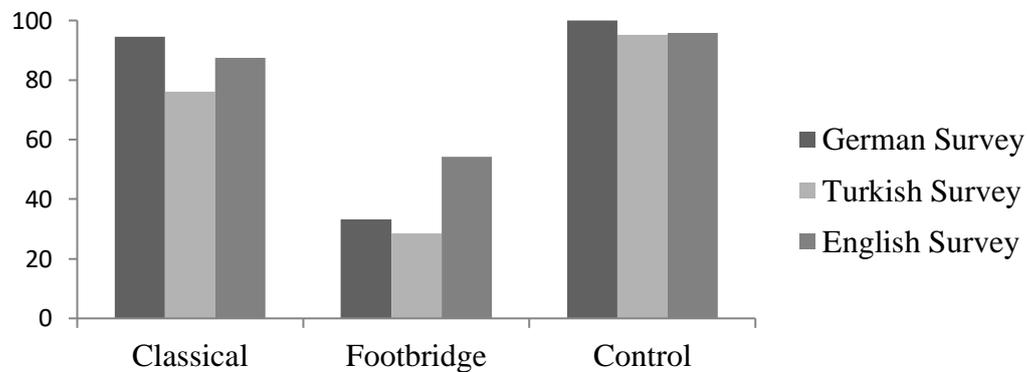


Figure 2. Percentages of consequentialist choices in Study 2 for each dilemma

4.3. Results - Study 3

In order to understand whether the FLE is also present in more realistic everyday moral dilemmas in comparison to the abstract trolley moral dilemmas, late sequential Turkish-English bilinguals' altruistic or egoistic responses were measured through a scale. As the scale elicited dichotomous answers, the total percentage of altruistic and egoistic responses were calculated for each participant and the means of these percentages were calculated (See Table 4.3.1). The percentage scores of altruistic responses were considerably higher than that of egoistic responses for both socially close and distant conditions in both Turkish and English survey groups.

Table 4.3.1. *Everyday Moral Dilemma Scale Percentage Scores*

Relation	Decision	English Survey Takers (<i>n</i> = 150)	Turkish Survey Takers (<i>n</i> = 140)
Socially close	Altruistic	69.33%	69.29%
	Egoistic	30.67%	30.71%
Socially distant	Altruistic	74.76%	73.75%
	Egoistic	25.24%	26.25%

In order to understand whether there is a statistically different pattern between the two language groups, a 2 (social relationship: close vs. distant) x 2 (language group: Turkish vs. English) mixed ANOVA on the mean percentages of egoistic responses was run. The between-subjects analysis did not indicate any significant response rate differences between the participants who took the Turkish or the English surveys (See Table 4.3.2).

Table 4.3.2. *Mixed ANOVA Summary Table for Everyday Moral Dilemma Scale Results*

Source	SS	df	MS	F	p	η_p^2
Between subjects						
Language Group (Turkish vs. English)	36.21	1	36.21	.068	.8	.000
Error (between)	153870	288	534.27			
Within subjects						
Social Relationship (close vs. distant)	4046.31	1	4046.31	20.11	.000*	.065
Social Relationship x Language Group	73.89	1	73.89	.367	.545	.001
Error (within)	57937.14	288	201.17			

* $p < .001$

The ANOVA did not reveal a significant difference between the Turkish and English groups' egoistic responses. Social relationship had a significant main effect. Pairwise comparisons revealed that overall, participants had higher egoistic responses to dilemmas where socially close individuals ($M = 30.89$, $SE = 1.07$) rather than socially distant individuals ($M = 25.61$, $SE = 1.17$) were involved $t(289) = 4.484$, 95% CI[2.97, 7.61], $p < .001$, with a small effect size, $d = .26$, regardless of the language of the survey. A social relationship x language group interaction was lacking, pointing to similar response

patterns for both relationship conditions in both the Turkish and English survey participants.

In order to understand whether participants' responses to the moral dilemmas change in relation to the gender variable, two additional 2 x 2 ANOVAs were run separately for each of the survey groups. The mixed ANOVA on the English survey egoistic responses did not reveal a significant gender difference; however, there was a marginally significant Social Relationship x Gender interaction (See Table 4.3.3). The pairwise comparisons revealed that the female participants had significantly higher egoistic responses ($M = 30.79$, $SE = 1.83$) in the socially close dilemmas in comparison to that of socially distant dilemmas ($M = 22.48$, $SE = 2.01$), $t(100) = 4.07$, 95% CI[4.281,12.352], $p < .001$, with a small-to-medium effect size, $d = .40$, whereas in the male participants there was no significant difference in the responses to socially close ($M = 31.43$, $SE = 2.63$) or distant dilemmas ($M = 30.2$, $SE = 2.89$), $t(48) = .42$, 95% CI[-4.569, 7.018], $p = .68$, $d = .06$).

Table 4.3.3. *Mixed ANOVA Results for the English Survey Group*

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η_p^2
Between subjects						
Gender	1154.415	1	1154.42	2.15	.144	.014
Error (between)	79345.59	148	536.12			
Within subjects						
Social Relationship (close vs. distant)	1501.80	1	1501.80	7.13	.008*	.046
Social Relationship x Gender	829.804	1	829.804	3.940	.049*	.026
Error (within)	31170.2	148	210.61			

* $p < .05$

The mixed ANOVA on the Turkish survey egoistic responses did not reveal a significant gender difference, main effect of social relationship or a social relationship x gender interaction (See Table 4.3.4).

Table 4.3.4. *Mixed ANOVA Results for the Turkish Survey Group*

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η_p^2
Between subjects						
Gender	458.2	1	458.2	.88	.35	.006
Error (between)	72911.8	138	528.35			
Within subjects						
Social Relationship (close vs. distant)	605.83	1	605.83	3.3	.07	.02
Social Relationship x Gender	605.83	1	605.83	3.3	.07	.02
Error (within)	25331.31	138	183.56			

α : .05

CHAPTER V: DISCUSSION

In this part of the study, the discussion of the results obtained from the data collected from participants' decisions on each of the moral dilemma for each study are discussed and compared with that of other related studies.

5.1. Discussion - Study 1

In Study 1, two trolley dilemmas and a control dilemma were presented to monolingual participants in Turkish and to bilingual participants in Turkish or in English. These moral dilemmas elicited utilitarian/consequentialist or deontological responses. In the previous literature, between-language differences were usually not expected for the classical trolley dilemma; however, the use of a foreign language was expected to increase the rate of utilitarian decisions at a higher rate in the footbridge dilemma. For the footbridge dilemma is rated to be more emotion-loaded in comparison with the classical trolley dilemma. In addition, the agent is more actively involved in sacrificing the lives of five people in the former dilemma type, which makes it harder to switch the train route.

The results of both trolley dilemmas elicited in this study indicate no significant between-language differences in utilitarian decision rates. In the classical trolley dilemma, the rate of utilitarian responses was unexpectedly higher (83%) for the bilingual participants who took the survey in Turkish in contrast to those who took the survey in English (67.1%); however, this difference was not statistically significant. The overall rates of utilitarian decisions were lower than that of deontological decisions in the bridge dilemma in both the Turkish and the English surveys. For the bilingual participants, the rate of utilitarian responses was slightly higher in the foreign language, English (37.5%) in comparison to that of the native language, Turkish (45.9%).

As for the control dilemma, a surprising result was found in the comparison of utilitarian decision rates among the three participant groups. The monolingual Turkish group had a significantly lower utilitarian decision rate than that of the other groups; therefore, it is possible to argue that the bilingual participants of this study tend make more rational and logical decisions in this dilemma type. One reason for including this dilemma is to observe whether the participants read the dilemmas carefully or not; therefore, the utilitarian choice to this dilemma should be as high as possible for all three groups. In addition, the responses to the control dilemma are not expected to change depending on the language used, since the dilemma content is based on rational thinking and is not dependent on morality or emotionality. The lower rate of utilitarian decisions in this

control dilemma in the monolingual Turkish group might indicate that the participants in this group did not read the text carefully or that they do not think as rationally as that of the other groups.

Our study results are in line with the previous studies of Brouwer (2019), Cipolletti et al. (2016) and Geipel et al. (2015), where the foreign language did not increase the rate of the utilitarian decisions in the classical dilemma. Our results contribute to the findings of these studies, as the classical trolley dilemma does not lead the participants to make more utilitarian decisions when reading the dilemmas in a L2. However, the outcomes of Corey et al. (2017) and Costa et al. (2014) point to a significantly higher rate of utilitarian decisions for the classical trolley dilemma in the foreign language group.

Our results on the footbridge dilemma indicate no significant difference in utilitarian decisions in either language. This is unexpected, as many previous studies (Brouwer, 2020; Cipolletti et al., 2016; Corey et al., 2017; Costa et al., 2014; Driver, 2020; Geipel et al., 2015) suggest a significantly higher utilitarian response rate in the footbridge dilemma for the foreign language survey groups. This means that the results of the footbridge dilemma in the present study cannot provide evidence for the FLE. Similar results are reported in Cavar and Tytus (2017) and Hayakawa et al. (2017), as these studies could also not provide evidence for the FLE in the footbridge dilemma. Although our results tend to show a higher rate of utilitarian choices in the L2 group, these results are not statistically significant.

Taking into consideration all three dilemmas that are used in this study, it appears that language does not seem to influence responses to moral dilemma situations. The counterbalanced order did not make a significant difference in the outcome of the results, meaning that the results do not change when the order of the dilemmas is different. The gender of the participants also did not indicate a significant difference, which means that female and male participants do not respond to the dilemmas differently in either language.

5.2. Discussion - Study 2

With the analyses conducted to compare the different results of the participants on moral dilemmas in the languages of German, Turkish, and English, it is possible to understand which group made more utilitarian decisions than the other groups.

The results of the classical trolley dilemma indicate no significant difference in the utilitarian decision rates among the three languages; this means that there is no FLE according to the decisions of the participants of the trolley dilemma. English, Turkish, and

German questionnaire takers' decisions are close to each other; however, the Turkish survey has the lowest utilitarian response rate. This finding can be due to the reason that Turkish is besides German, the L1 of all participants. Nevertheless, as the finding is not statistically significant, it is similar to the results of previous studies, such as Brouwer (2019), Cipolletti (2016) and Geipel et al. (2015).

The findings of the footbridge dilemma indicate that the highest utilitarian decision is by the English-questionnaire group when compared to the other two languages. However, this difference is statistically not significant; therefore, the findings of this study for this dilemma does not contribute to previous studies with statistically significant differences pointing to FLE, such as Cipolletti et al. (2016), Corey et al. (2017), Costa et al. (2014), and Geipel et al. (2015). Since the results of all three groups are close to each other, we cannot provide evidence for the FLE, similar to the findings of Brouwer (2019), Cavar and Tytus (2017) and Hayakawa et al. (2017).

The results of the control dilemma indicate no difference in the utilitarian rate of the participants, as all three groups made close choices. These findings are expected since this dilemma is based on logical thinking capacities. Therefore, the utilitarian rate should be as high as possible. The findings of this study add to previous studies (Cipolletti, 2016; Geipel et al., 2015), as there is no significant response rate difference among the groups.

Taking into consideration all of the three dilemmas used in this study, multilingual participants did not respond differently when the moral dilemmas were presented in a different language. Although the differences between each language group for the utilitarian rate of our findings are not statistically significant, certain differences in the decision-making process on moral dilemmas between the foreign language and the native language tend to occur in those situations. Therefore, these results are similar to Brouwer (2019); her study indicated no significant utilitarian response rate difference, yet the participants tend to make more utilitarian choices for both the trolley and the footbridge dilemma when doing the questionnaire in the foreign language. However, in the present study, there is a possibility that the statistical outcome could be changed if the participant number were higher or if the proficiency level of the participants were higher.

Comparing these results to the findings of Study 1, it is possible to observe a similar scheme for each of the three dilemmas. The participants made the highest utilitarian rates for the control dilemma and the lowest utilitarian rates for the bridge dilemma. However, the results of Study 2 indicate no significant difference for the control dilemma, which was present in Study 1. Additionally, in both Study 1 and Study 2, the highest

utilitarian rate in the bridge dilemma was that of the participants who took the questionnaire in English however, the results do not indicate a statistically significant difference.

5.3. Discussion - Study 3

This study focuses on bilingual participants' responses to everyday dilemmas, situations that we can encounter in life, in contrast to the abstract, unrealistic moral dilemmas in Study 1 and Study 2. The general question that was asked in each of the dilemmas is how the participants would react in a specific everyday moral conflict situation. Through surveying 290 people in two different languages, the purpose was to see if the answers given to the dilemmas indicate a difference between the two languages when comparing the survey responses.

The survey results revealed that in this study, overall, the participants made more altruistic decisions than egoistic decisions in both socially close and distant dilemmas. Regarding the FLE, no differences were found between the Turkish and English survey participants' overall response patterns to everyday moral dilemmas. When comparing the egoistic decisions made in the dilemmas, we can see that the participants make more egoistic decisions in socially close dilemmas and more altruistic decisions in socially distant dilemmas, which means that people give meaner responses to dilemmas involving people that they know and give kinder responses to strangers. This contrasts with the findings of Hofmann, Brandt, Wisneski, Rockenbach & Skitka (2018), Singer et al. (2019), and Zhan et al. (2018), which is unexpected. Previous studies state that people seem to make more egoistic decisions when the protagonist is socially distant (Singer et al., 2019). The reason for this can be related to participants' cultural background, educational background, or social environment. The previous studies are based on the European context (Hofmann et al., 2018; Singer et al., 2019); on the contrary our study is based on the Turkish culture. According to some studies, Turkish people living in Turkey tend to be more altruistic and spoil strangers with love more often than people living in Germany (Akkemik, Bulut, Dittrich, Göksal, Leipold & Ogaki, 2017). This might be the reason why the participants of this study seem to be friendlier to strangers rather than to people who are socially close to them. On the one hand, they may not know the socially distant people and therefore may not know how the stranger would react if the participant does something egoistic, on the other hand they might know the socially close people and their behaviors

well, which might make it easier for the participant to judge a situation and act more comfortably.

Additionally, in the present study, female participants made significantly more egoistic responses than male participants in socially close dilemmas in comparison to socially distant dilemmas in the English version of the questionnaire. This means that female participants tend to give ruder responses to dilemmas that involve close people as their family or friends and give kinder responses to people that they do not know, when they respond to the dilemmas in English. Therefore, it is possible to say that the female participants make less emotional and more egoistic decisions in their L2, as the dilemmas are about people who are socially close to the participant. The use of the L2 is less intuitive and automatic, meaning that the female participants who did the questionnaires in their L1 might have responded to the socially distant relationship dilemmas in an insincere and calculated manner (Bereby-Meyer, Hayakawa, Shalvi, Corey, Costa, & Keysar, 2018).

CHAPTER VI: CONCLUSION, SUGGESTIONS, AND IMPLICATIONS

6.1. Conclusion

The aim of the studies that are conducted for this thesis was to investigate whether the foreign language effect (FLE) occurs in responses to abstract and realistic moral dilemma situations. For this goal, three different studies were carried out. It is possible to investigate the FLE through dilemmas; for this thesis, morality-based dilemmas and everyday dilemmas are made use of.

The first study ($N = 275$) separates the participants into three survey groups: monolingual participants who received the Turkish survey, bilingual participants who received the Turkish survey and bilingual participants who received the English survey. All participants responded to three morality-based dilemmas in either Turkish or English. The results indicate no significant difference for the first two dilemmas although the utilitarian responses in the English survey group was slightly higher than that of the other Turkish survey groups. Additionally, the third (i.e., control) dilemma shows a significant difference, whereby both bilingual groups made more logical decisions than the monolingual group.

In Study 2, the same morality-based dilemmas were presented to people living in Germany with a Turkish background, in English, German and Turkish. Although the rate of utilitarian responses to the more demanding moral dilemma was higher in the English survey, the difference was not statistically significant. Therefore, this study also shows no statistically significant difference in terms of the responses to moral dilemmas in different language. The results should be interpreted with caution since the sample of 63 people in the study is considerably low and therefore it is not possible to make a definitive statement on whether the FLE is present or not.

In Study 3, 20 everyday dilemmas, situations that are more likely to happen when compared with the dilemmas of the first and second studies, were given to a group of Turkish-English late sequential bilinguals. In both socially close and socially distant relation dilemmas, both the English and Turkish survey participants make more altruistic decisions which can be referred as 'good' decision. When the dilemmas are socially close, people make significantly more egoistic decisions regardless of the language, which contrasts with previous research. When the dilemma is presented in English, female participants make significantly more egoistic responses in socially close dilemmas in

comparison to socially distant dilemmas, a pattern which was not observed in the male group.

In general, the findings indicate that a FLE pattern emerged for the footbridge dilemma, but it was not found to be statistically significant. A possible interpretation for this can be the sample size in the studies, especially for Study 2, which tends to be small to detect a significant difference. Another reason that the results of the footbridge dilemmas are not statistically significant may be the L2 proficiency of the participants. More proficient speakers of the L2 could change the results. Overall, the present study did not find evidence for a clear FLE across three studies.

6.2. Suggestions and Implications of the Study

This study is about investigating the FLE by comparing two or three languages with each other with different kinds of participants. The main premise is that people who make a decision in the foreign language should make utilitarian or egoistic decisions more often than those who do the survey in their mother tongue. This means that according to this idea, people think more recklessly when responding to morality-based questions. This study tried to find evidence for this idea.

Based on the idea that people tend to be less emotional when answering to moral dilemmas in their L2, it is important to foster emotionality in classroom environments by teachers. By doing more tasks that are authentic and close to reality (e.g., drama or simulations), it will help students to gain a sense of emotionality in their L2, especially for young learners.

It is important to look at the dilemmas or questions when doing this kind of research. The dilemmas can be more personal and intense in the way of letting the participant think about the particular event longer than they would have thought. If the participant thinks longer for each dilemma, the event will get more intense and therefore lead to a psychological conflict for the participant since he/she has a hard time answering the dilemma. For this reason, I can suggest choosing dilemmas that are more conflicting in future studies.

Turkish, English and German are the languages that are used for the studies to find out if the FLE is present. It would be interesting to see how the FLE occurs in different languages and cultures. When comparing cultures that are different from each other, such as Chinese and English, I believe that the FLE can occur stronger than it would occur with similar cultures. Therefore, it is worth doing research with a variety of different languages.

Not everyone has a highly advanced English level, which was also the case in this study. However, when comparing specifically people whose English is more advanced, such as academicians or people who lived in an English-speaking country with people who did not have such an experience, I believe that the FLE would result more firmly.

Additionally, comparing different groups of people is needed. This can be people with similar socioeconomic or educational backgrounds. It is possible to make comparisons between people living in metropolitan cities and people living in small villages. The mixture of any possible scenarios can make a difference in the results and make the possible FLE more visible.

The responses in the questionnaires had dichotomous answers which limited the types of statistical analysis that could be performed. Since, the use of Likert-scale responses can remove this limitation, the use of such scales is recommended for future studies. Also, due to time constraints and Covid-19, short surveys were given to the participants. Longer surveys with a higher number of questions would make the results more reliable.

Finally, the sample size could be enlarged. Especially in Study 2 of this thesis, the statistical results would be different if the sample size were bigger. I believe that larger sample sizes can provide more information and indicate that the FLE can emerge in emotion-based questions.

REFERENCES

- Akkemik, K. A., Bulut, M., Dittrich, M., Göksal, K., Leipold, K., & Ogaki, M. (2017). Worldviews and intergenerational altruism: A comparison of Turkish people living in Turkey and Germany. *Cesifo Working Paper*, (64), 1-27.
- Al Tarawneh, H. A. (2012). The main factors beyond decision making. *Journal of Management Research*, 4(1).
- Bartels, D. M. (2008). Principled moral sentiment and the flexibility of moral judgment and decision making. *Cognition*, 108(2), 381-417.
- Bauman, C. W., McGraw, A. P., Bartels, D. M., & Warren, C. (2014). Revisiting external validity: Concerns about trolley problems and other sacrificial dilemmas in moral psychology. *Social and Personality Psychology Compass*, 8(9), 536-554.
- Belcher, D., & Connor, U. (2001). *Reflections on multiliterate lives*. Clevedon: Multilingual Matters.
- Bereby-Meyer, Y., Hayakawa, S., Shalvi, S., Corey, J.D., Costa, A., & Keysar, B. (2020). Honesty speaks a second language. *Top Cogn Sci*, 12, 632-643.
- Białek, M., & Fugelsang, J. (2019). No evidence for decreased foreign language effect in highly proficient and acculturated bilinguals: a commentary on Čavar and Tytus (2018). *Journal of Multilingual and Multicultural Development*, 40(8), 679-686.
- Białek, M., Paruzel-Czachura, M. & Gawronski, B., (2019). Foreign language effects on moral dilemma judgments: An analysis using the CNI model. *Journal of Experimental Social Psychology*, 85. <https://doi.org/10.1016/j.jesp.2019.103855>
- Brouwer, S. (2019). The auditory foreign-language effect of moral decision making in highly proficient bilinguals. *Journal of Multilingual and Multicultural Development*, 40(10), 865-878.
- Brouwer, S. (2020). The interplay between emotion and modality in the Foreign-Language effect on moral decision making. *Bilingualism: Language and Cognition*, 1-8. <https://doi.org/10.1017/S136672892000022X>
- Caldwell-Harris, C. L., & Ayçiçeği-Dinn, A. (2009). Emotion and lying in a non-native language. *International Journal of Psychophysiology*, 71(3), 193-204.

- Capraro, V., & Sippel, J. (2017). Gender differences in moral judgment and the evaluation of gender-specified moral agents. *Cognitive Processing, 18*(4), 399-405.
- Čavar, F., & Tytus, A. E. (2017). Moral judgement and foreign language effect: when the foreign language becomes the second language. *Journal of Multilingual and Multicultural Development, 39*(1), 17-28.
- Creswell, J. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Merrill Prentice Hall.
- Cipolletti, H., McFarlane, S., & Weissglass, C. (2015). The moral foreign-language effect. *Philosophical Psychology, 29*(1), 23-40
- Corey, J. D., Hayakawa, S., Foucart, A., Aparici, M., Botella, J., Costa, A., & Keysar, B. (2017). Our moral choices are foreign to us. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 43*(7), 1109-1128.
- Costa, A., Vives, M., & Corey, J. D. (2017). On language processing shaping decision making. *Current Directions in Psychological Science, 26*(2), 146-151.
- Costa, A., Foucart, A., Hayakawa, S., Aparici, M., Apesteguia, J., Heafner, J., & Keysar, B. (2014). Your morals depend on language. *Plos One, 9*(4). <https://doi.org/10.1371/journal.pone.0094842>
- Cushman, F., Young, L., & Hauser, M. (2006). The role of conscious reasoning and intuition in moral judgment. *Psychological Science, 17*(12), 1082-1089.
- De Haan, J. (2001). The definition of moral dilemmas: A logical problem. *Ethical Theory and Moral Practice, 4*(3), 267-284.
- Díaz-Lago, M., & Matute, H. (2018). Thinking in a foreign language reduces the causality bias. *Quarterly Journal of Experimental Psychology, 72*(1), 41-51.
- Driver, J. (2009). The history of utilitarianism. *The Stanford Encyclopedia of Philosophy, 1*, Metaphysics Research Lab, Stanford University.

- Driver, M. Y. (2020). Switching codes and shifting morals: how code-switching and emotion affect moral judgment. *International Journal of Bilingual Education and Bilingualism*, 1-17. <https://doi.org/10.1080/13670050.2020.1730763>
- Duncan, R. B. (1973). Multiple decision-making structures in adapting to environmental uncertainty: The impact on organizational effectiveness. *Human Relations*, 26(3), 273-291.
- Dwyer, S. (2009). Moral dumbfounding and the linguistic analogy: Methodological implications for the study of moral judgment. *Mind & Language*, 24(3), 274-296.
- Dylman, A. S., & Bjärtå, A. (2019). When your heart is in your mouth: the effect of second language use on negative emotions. *Cognition and Emotion*, 33(6), 1284-1290.
- Dylman, A. S., & Champoux-Larsson, M. F. (2020). It's (not) all Greek to me: Boundaries of the foreign language effect. *Cognition*, 196, 104-148.
- Gao, S., Zika, O., Rogers, R. D., & Thierry, G. (2015). Second language feedback abolishes the "Hot Hand" effect during even-probability gambling. *The Journal of Neuroscience*, 35(15), 5983-5989.
- Geipel, J., Hadjichristidis, C., & Surian, L. (2015). The foreign language effect on moral judgment: The role of emotions and norms. *Plos One*, 10(7). <https://doi.org/10.1371/journal.pone.0131529>
- Gilovich, T., Vallone, R., & Tversky, A. (1985). The hot hand in basketball: on the misperception of random sequences. *CognPsychol* 17, 295-314. CrossRef
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101(2), 366-385.
- Greene, J. D., Cushman, F. A., Stewart, L. E., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2009). Pushing moral buttons: The interaction between personal force and intention in moral judgment. *Cognition*, 111(3), 364-371.
- Greene, J. D., & Haidt, J. (2002). How (and where) does moral judgment work? *Trends in Cognitive Sciences*, 6(12), 517-523.

- Greene, J. D., Morelli, S. A., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2008). Cognitive load selectively interferes with utilitarian moral judgment. *Cognition*, *107*(3), 1144-1154.
- Greene, J. D., Nystrom, L. E., Engell, A. D., Darley, J. M., & Cohen, J. D. (2004). The neural bases of cognitive conflict and control in moral judgment. *Neuron*, *44*(2), 389-400.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science*, *293*(5537), 2105-2108.
- Hadjichristidis, C., Geipel, J. & Savadori, L. (2015). The effect of foreign language in judgments of risk and benefit: The role of affect. *Journal of Experimental Psychology: Applied* *21*(2), 117-129.
- Hadjichristidis, C., Geipel, J., & Surian, L. (2016). How foreign language affects decisions: Rethinking the brain-drain model. *Journal of International Business Studies*, *48*(5), 645-651.
- Haidt, J. (2007). The new synthesis in moral psychology. *Science*, *316*, 998–1002.
- Hair Jr., JF., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis: A global perspective* (7th Edition). California: Pearson Education.
- Harris, C. L., Ayçiçeği, A., & Gleason, J. B. (2003). Taboo words and reprimands elicit greater autonomic reactivity in a first language than in a second language. *Applied Psycholinguistics*, *24*(4), 561-579.
- Hayakawa, S., Tannenbaum, D., Costa, A., Corey, J. D., & Keysar, B. (2017). Thinking more or feeling less? Explaining the foreign-language effect on moral judgment. *Psychological Science*, *28*(10), 1387-1397.
- Hofmann, W., Brandt, M. J, Wisneski, D. C, Rockenbach, B., Skitka, L. J. (2018). Moral punishment in everyday life. *Pers Soc Psychol Bull*, *44*, 1697-1711
- Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science*, *345*(6202), 1340-1343.

- Huebner, B., Dwyer, S., & Hauser, M. (2009). The role of emotion in moral psychology. *Trends in Cognitive Sciences*, *13*(1), 1-6.
- Iacoza, S., Costa, A., & Duñabeitia, J. A. (2017). What do your eyes reveal about your foreign language? Reading emotional sentences in a native and foreign language. *Plos One*, *12*(10). <https://doi.org/10.1371/journal.pone.0186027>
- Ivaz, L., Costa, A., & Duñabeitia, J. A. (2016). The emotional impact of being myself: Emotions and foreign-language processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *42*(3), 489-496.
- Kahane, G., Everett, J. A., Earp, B. D., Farias, M., & Savulescu, J. (2015). ‘Utilitarian’ judgments in sacrificial moral dilemmas do not reflect impartial concern for the greater good. *Cognition*, *134*, 193-209.
- Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist*, *58*(9), 697-720.
- Kant, I. (1785). *Groundwork of the metaphysic of morals*. (4th Edition). London: Kongmans, Green and Co.
- Keysar, B., Hayakawa, S. L., & An, S. G. (2012). Thinking in a foreign tongue reduces decision biases. *Psychological Science*, *23*, 661-668.
- Klesse, A. K., Levav, J., & Goukens, C. (2015). The effect of preference expression modality on self-control. *Journal of Consumer Research*, *42*(4), 535–550.
- Koenigs, M., Young, L., Adolphs, R., Tranel, D., Cushman, F., Hauser, M., & Damasio, A. (2007). Damage to the prefrontal cortex increases utilitarian moral judgements. *Nature*, *446*, 908-911.
- Mendez, M. F., Anderson, E., & Shapira, J. S. (2005). An investigation of moral judgement in frontotemporal dementia. *Cognitive and Behavioral Neurology*, *18*(4), 193-197.
- Mikhail, J. (2007). Universal moral grammar: Theory, evidence and the future. *Trends in Cognitive Sciences*, *11*(4), 143-152.

- Miozzo, M., Navarrete, E., Ongis, M., Mello, E., Giroto, V., & Peressotti, F. (2020). Foreign language effect in decision-making: How foreign is it? *Cognition*, *199*. <https://doi.org/10.1016/j.cognition.2020.104245>
- Muda, R., Pieńkosz, D., Francis, K. B., & Białek, M. (2020). The moral foreign language effect is stable across presentation modalities. *Quarterly Journal of Experimental Psychology*, *71*(11), 1930-1938.
- Nichols, S., & Mallon, R. (2006). Moral dilemmas and moral rules. *Cognition*, *100*(3), 530-542.
- Oppenheimer, D. M. (2008). The secret life of fluency. *Trends in Cognitive Sciences*, *12*(6), 237-241.
- Paradis, J. (2010). Bilingual children's acquisition of English verb morphology: Effects of language exposure, structure complexity, and task type. *Language Learning*, *60*(3), 651-680.
- Pavlenko, A. (2012). Affective processing in bilingual speakers: Disembodied cognition? *International Journal of Psychology*, *47*, 405-428.
- Pavlenko, A. (2017). Do you wish to waive your rights? Affect and decision-making in multilingual speakers. *Current Opinion in Psychology*, *17*, 74-78.
- Polonioli, A. (2018). A blind spot in research on foreign language effects in judgment and decision-making. *Frontiers in Psychology*, *9*, 1-5.
- Puntoni, S., de Langhe, B., & van Osselaer, S. M. J. (2009). Bilingualism and the emotional intensity of advertising language. *Journal of Consumer Research*, *35*(6), 1012-1025.
- Rampton, M. (1990). Displacing the 'native speaker': Expertise, affiliation, and inheritance. *ELT Journal*, *44*(2), 97-101.
- Rosen, J. B., Rott, E., Ebersbach, G., & Kalbe, E. (2015). Altered moral decision-making in patients with idiopathic Parkinson's disease. *Parkinsonism & Related Disorders*, *21*(10), 1191-1199.

- Singer, N., Kreuzpointner, L., Sommer, M., Wüst, S., & Kudielka, B. M. (2019). Decision-making in everyday moral conflict situations: Development and validation of a new measure. *Plos One*, *14*(4), 1-19.
- Sommer, M., Rothmayr, C., Döhnelt, K., Meinhardt, J., Schwerdtner, J., Sodian, B., & Hajak, G. (2010). How should I decide? The neural correlates of everyday moral reasoning. *Neuropsychologia*, *48*(7), 2018-2026.
- Starcke, K., Polzer, C., Wolf, O. T., & Brand, M. (2011). Does stress alter everyday moral decision-making? *Psychoneuroendocrinology*, *36*(2), 210-219.
- Statistisches Bundesamt – Destatis. (2017). *Bevölkerung und Erwerbstätigkeit. Bevölkerung mit Migrationshintergrund - Ergebnisse des Mikrozensus 2015*, Wiesbaden: Statistisches Bundesamt (Destatis).
- Thomson, J. J. (1985). Double effect, triple effect and the trolley problem: Squaring the circle in looping cases. *Yale Law Journal*, *94*, 1395-1415.
- Vives, M. L., Aparici, M. & Costa, A. (2018). The limits of the foreign language effect on decision-making: The case of the outcome bias and the representativeness heuristic. *Plos One* *13*(9), 1-14.
- Volk, S., Köhler, T., & Pudelko, M. (2014). Brain drain: The cognitive neuroscience of foreign language processing in multinational corporations. *Journal of International Business Studies*, *45*(7), 862-885.
- Wu, Y. J., & Thierry, G. (2012). How reading in a second language protects your heart. *The Journal of Neuroscience*, *32*, 6485-6489.
- Zhan, Y., Xiao, X., Li, J., Liu, L., Chen, J., Fan, W., & Zhong, Y. (2018). Interpersonal relationship modulates the behavioral and neural responses during moral decision-making. *Neuroscience Letters*, *672*, 15-21.

APPENDICES

APPENDIX I

Personal Information- Language Information Form

1. Age _____

2. Gender Male

Female

Prefer not to say

4. Education level High School

University

Graduate School

5. Profession/ Field of Study _____

6. How do you evaluate your English proficiency in the following areas?

	Beginner	Moderate	Advanced	Nativelike
Reading				
Writing				
Speaking				
Listening				
General Competence				

7. How old were you when you started learning English? _____

8. How long have you been learning English? _____

9. How often do you use English? Always _____

Usually _____

Sometimes _____

Seldom _____

Never _____

10. Where do you use English? (You can choose more than one answer).

Home _____

Work/School _____

Social _____

11. Other foreign languages that you know well (if any). _____

APPENDIX II

Decision Making Survey (English, Turkish and German)

1. You are at the wheel of a train which is going down a track (train way) very fast toward five railway workmen. The train has a problem and cannot be stopped. If you stay on the track on the left, the five railway workers will die. On the right, there is another track to which you can change the direction of the train. At the end of this track there is one worker who will die if you change the track. Would you change the track in order to save the five workers?

a) Yes b) No

2. A train is going down a track very fast toward five railway workers. The train has a problem and cannot be stopped unless a heavy weight is dropped on the track. You are on a bridge over the tracks, in between the approaching trolley and the five workers. Next to you, there is a stranger who is very fat. The only way to save the lives of the five workers is to push this stranger off the bridge and onto the tracks below which will stop the trolley. The stranger will die if you do this, but the five workers will be saved. Would you push the stranger on to the tracks in order to save the five workers?

a) Yes b) No

3. You are looking to buy a new computer. You decide on the computer that you want to buy. A friend who knows the computer industry has told you that this computer's price will drop to half its price in two weeks. If you wait for two weeks to buy your new computer, you will have to use your old computer for a few weeks longer than you would like to. Nevertheless, you will be able to do everything you need to do using your old computer during that time. Would you use your old computer for two more weeks in order to save money on the purchase of a new computer?

a) Yes b) No

1. Ray üzerinde oldukça hızlı bir şekilde beş tren yolu işçisinin olduğu yöne doğru ilerleyen bir treni idare etmektesiniz. Trende bir sorun var ve durdurulamıyor. Soldaki rayda kalırsanız beş tren yolu işçisi ölecek. Sağ tarafta trenin yönünü değiştirebileceğiniz

bir ray daha var. Bu rayın sonunda, rayı değiştirirseniz ölecek olan tek bir işçi var. Beş işçiyi kurtarmak için rayı değiştirir miydiniz?

- a) Evet b) Hayır

2. Bir tren ray üzerinde oldukça hızlı bir şekilde beş tren yolu işçisinin olduğu yöne doğru ilerlemekte. Trende bir sorun var ve ray üzerine büyük bir ağırlık konmazsa durdurulamayacak. Siz rayların yukarısında, yaklaşan tren ve beş işçi arasındaki bir köprü üzerindesiniz. Yanınızda tanımadığınız çok şişman tanımadığınız bir kişi var. Beş işçinin hayatını kurtarmanızın tek yolu bu kişiyi köprüden aşağıya, raylara doğru iterek treni durdurmak. Bunu yaparsanız tanımadığınız kişi ölecek, ancak beş işçi kurtulacak. Beş işçiyi kurtarmak için yabancı kişiyi raylara doğru iter miydiniz?

- a) Evet b) Hayır

3. Yeni bir bilgisayar almak istiyorsunuz. Alacağınız bilgisayara karar verdiniz. Bilgisayar piyasasını bilen bir arkadaşınız iki hafta sonra bilgisayarın fiyatının yarısına düşeceğini söylüyor. Yeni bilgisayarı almak için iki hafta sonrasını beklerseniz eski bilgisayarınızı istediğinizden birkaç hafta daha uzun kullanmak zorunda kalacaksınız. Ancak, o sırada yapmanız gereken her şeyi eski bilgisayarınızda yapabileceksiniz. Yeni bilgisayarı alırken para tasarrufu yapmak için iki hafta daha eski bilgisayarınızı kullanır mıydınız?

- a) Evet b) Hayır

1. Sie sitzen am Steuer eines Zuges, welches mit schneller Geschwindigkeit auf fünf Eisenbahn Arbeiter fährt. Der Zug hat ein Problem und kann deshalb nicht gestoppt werden. Falls Sie auf dem linken Gleis weiterfahren, werden die fünf Arbeiter sterben. Auf der rechten Seite gibt es ein anderes Gleis, auf das Sie die Richtung des Zuges ändern können. Auf diesem Gleis befindet sich ein Arbeiter, der sterben wird, falls sie die Richtung ändern werden. Würden Sie das Gleis wechseln, um die fünf Arbeiter zu retten?

- a) Ja b) Nein

2. Ein Zug fährt sehr schnell auf fünf Eisenbahn Arbeiter zu. Der Zug hat ein Problem und kann nur angehalten werden, wenn ein schweres Gewicht auf die Gleise fällt. Sie befinden sich auf einer Brücke über den Schienen zwischen dem herannahenden Wagen und den

fünf Arbeitern. Neben Ihnen ist ein Mann, der sehr fett ist. Die einzige Möglichkeit, das Leben der fünf Arbeiter zu retten, besteht darin, diesen Fremden Mann von der Brücke auf die Gleise zu schupsen. Der fremde Mann stirbt, wenn sie dies tun, jedoch werden die fünf Arbeiter gerettet. Würden Sie den Fremden auf die Gleise schupsen, um die fünf Arbeiter zu retten?

- a) Ja b) Nein

3. Sie möchten einen neuen Computer kaufen und haben sich auch schon für das Model entschieden. Ein Freund, der sich in der Computerbranche auskennt, hat ihnen gesagt, dass die Preise in zwei Wochen um 50% reduziert werden. Wenn Sie zwei Wochen warten, um einen neuen Computer zu kaufen, müssen Sie Ihr altes Gerät für ein paar weitere Wochen benutzen. Trotzdem können Sie alles was Sie machen müssen auf Ihrem alten Computer machen. Würden Sie Ihren alten Computer für zwei weitere Wochen verwenden, um Geld zu sparen?

- a) Ja b) Nein

APPENDIX III

Everyday Moral Conflict Situations (EMCS) Scale – English and Turkish

The aim of this survey is to analyze decision-making processes in Turkish/English speakers within the scope of my master's thesis entitled "Decision Making in Bilinguals" in English Language Teaching Department at Pamukkale University, Turkey. It takes approximately 10 minutes to complete the survey.

Tolga Zeybek, Pamukkale University, English Language Teaching, Master's Student,
tolga.zeybek@hotmail.de

Supervisor: Dr. Filiz Rizaoglu

Consent Information:

I am doing this questionnaire on a voluntary basis and I know that I can stop whenever I want. I know that my results will be kept confidential and be used for scientific research purposes. I allow the researchers to use my language-information and results for research purposes.

If you want to continue, please press the button below.

1. I am just about to leave for work as a neighbor and friend rings my bell. She asks me if I could drive her to the doctor because she is not feeling well. I am already late and have a meeting with my boss today. What do I do?

a) I drive her to the doctor.

b) I go to work.

2. After a visit to a restaurant during my holiday, I request to pay. A waiter brings me the bill. While looking over it, I notice that he forgot to bill my last drink. What do I do?

a) I point out the mistake.

b) I pay without the last drink.

3. A friend of mine definitely wants to buy an old computer game from me that he loves playing. I promise to sell it to him for 20 TL tomorrow. Later on, as I check on the internet, I see that I could sell the game immediately for 60 TL there. What do I do?

a) I keep my promise.

b) I sell the game for more money.

I help the woman.

b) I run to the bus.

11. While locking up my bike, it falls against a car. In the darkness, I do not detect any scratches on the car. The next day, I hear my well-known neighbor complaining about a fresh scratch on his new car. What do I do?

a) I inform the neighbor.

b) I keep quiet about the incident.

12. I want to sell a painting at a flea market. A woman offers to pay 100 TL and I agree. While the woman is on her way to a bank to withdraw money, someone else offers to pay 150 TL for the painting. What do I do?

a) I keep my promise.

b) I sell the painting for the higher price.

13. It is the soccer world cup and the final match is on TV. I am a big soccer fan and very excited about the game. All of a sudden, a friend of mine who is not feeling well gives me a call and wants to meet up with me right now. What do I do?

a) I meet up with my friend.

b) I watch the soccer game.

14. I find a wallet on the street one evening with 50 TL in it but without any personal documents. There is no possibility for me to find out the owner. However, I could turn in the wallet at the city's lost and found office. What do I do?

a) I turn in the wallet.

b) I keep the wallet.

15. I have promised my partner to go to the company party with him/her. He/she has already signed both of us up. Now I realize that I would urgently need the time to prepare for an important exam. What do I do?

a) I keep my promise.

b) I prepare for the exam.

16. I am driving by car to an important business meeting and I am running a bit late today. Right in front of me, a slight rear-end collision* happens. If I stop my car, I will probably be too late for my meeting. What do I do? (*collision: car crash)

a) I stop my car.

b) I keep driving.

17. I am at the airport, ready to leave on a long-planned holiday. While I am standing at the check-in counter, my mother gives me a call. She tells me that my father had a little accident and was admitted to the hospital. What do I do?

a) I cancel the holiday.

b) I take the flight anyway.

18. I definitely want to catch the bus in order to be home in time for an important appointment. Shortly before the bus leaves, the pedestrian light turns red. A little boy is standing on the other side of the intersection. What do I do?

a) I wait.

b) I cross the street on red light.

19. I have promised my grandmother to take her to the doctor this afternoon. One hour before the appointment, my boss gives me a call and summons me on short notice for an important meeting. This meeting is supposed to be about my promotion. What do I do?

a) I take my grandmother to the doctor.

b) I go to the meeting with my boss.

20. I want to go home by train. As I am getting on the train, I see a man with crutches* unsuccessfully trying to carry his suitcase upstairs to the platform. If I help the man, I will miss the train. What do I do? (*crutches: sticks to support the injured people in walking).

a) I help the man.

b) I get on the train.

Bu araştırmanın amacı, Pamukkale Üniversitesi İngiliz Dili Eğitimi bölümünde yapılan "İkidiğerlerde Karar Verme Süreçleri" adlı yüksek lisans tezi kapsamında Türkçe/İngilizce bilenlerin karar verme süreçlerini analiz etmektir. Anketi tamamlamanız yaklaşık 10 dakika sürecektir.

Katılım Onayı:

Bu ankete gönüllü olarak katılıyorum ve istediğim zaman bırakabileceğimi biliyorum. Sonuçlarımın gizli tutulacağını ve bilimsel araştırma amacıyla kullanılacağını biliyorum. Araştırmacıların, dil bilgilerimi ve yanıtlarımı araştırma amaçlı kullanmalarını kabul ediyorum.

a) Arkadaşımı paraların değeri hakkında bilgilendiririm. b) Paraları düşük fiyata satın alırım.

9. Bir arkadaşım ve ben bir müzik grubunun sıkı hayranlarıyız. Bu grup şehrimizde bir konser verecek ve ikimiz de gitmek istiyoruz. Bilet acentesinde sadece bir bilet alabiliyorum. Ne yaparım?

a) Bileti arkadaşşıma veririm. b) Konsere kendim giderim.

10. Hareket etmek üzere olan ve sadece saatte bir kalkan otobüsümü yakalamak için koşuyorum. Önümde iki küçük çocuklu bir kadının çantasından birkaç eşya düşer. Etrafta benden başka kadına yardım edecek kimse yok. Ne yaparım?

a) Kadına yardım ederim. b) Otobüse doğru koşarım.

11. Bisikletimi kilitlerken, bisiklet bir arabanın üstüne düşer. Karanlıkta arabada hiçbir çizik fark etmem. Ertesi gün, komşumun yeni arabasındaki yeni oluşmuş bir çizik hakkında şikayet ettiğini duyarım. Ne yaparım?

a) Komşumu bilgilendiririm. b) Kaza hakkında sessiz kalırım.

12. Bit pazarında bir tablo satmak istiyorum. Bir kadın 100 TL teklif eder ve kabul ederim. Kadın para çekmeye gittiği sırada başka birisi tablo için 150 TL ödemeyi teklif eder. Ne yaparım?

a) Sözümü tutarım. b) Tabloyu daha yüksek fiyata satarım.

13. Futbol dünya kupası yapılıyor ve TV’de final maçı var. Sıkı bir futbol severim ve maç için çok heyecanlıyım. Birden, kendini iyi hissetmeyen bir arkadaşım beni arar ve benimle şu anda görüşmek ister. Ne yaparım?

a) Arkadaşımla buluşurum. b) Futbol maçını izlerim.

14. Bir akşam yolda içinde sadece 50 TL olan ama hiçbir kişisel bilgi olmayan bir cüzdan bulurum. Hiçbir şekilde sahibini bulma imkânım yok. Ancak cüzdanı kayıp eşya ofisine teslim edebilirim. Ne yaparım?

a) Cüzdanı teslim ederim. b) Cüzdan bende kalır.

15. Eşime şirketin partisine onunla gideceğine söz vermişimdir. İkimizin de isimlerini çoktan yazdırmıştır. Şimdi fark ettim ki önemli bir sınava hazırlanmak için acilen zamana ihtiyacım var. Ne yaparım?

- a) Sözümü tutarım. b) Sınava hazırlanırım.

16. Arabamla önemli bir iş toplantısına gidiyorum ve bugün biraz geciktim. Tam önümde hafif bir arkadan çarpmalı kaza olur. Eğer arabayı durdurursam muhtemelen toplantıya çok geç kalacağım. Ne yaparım?

- a) Arabamı durdururum. b) Sürmeye devam ederim.

17. Havaalanındayım ve uzun zamandır planladığım tatile hazırım. Biniş kaydı alanında beklerken annem arar ve babamın küçük bir kaza geçirdiğini ve hastaneye götürüldüğünü söyler. Ne yaparım?

- a) Tatili iptal ederim. b) Uçağa binerim.

18. Önemli bir randevu için zamanında evde olmak amacıyla otobüsü mutlaka yakalamak istiyorum. Otobüs kalkmadan biraz önce yayalar için kırmızı ışık yanıyor. Kavşağın diğer tarafında beni izleyen küçük bir çocuk duruyor. Ne yaparım?

- a) Beklerim. b) Kırmızı ışıkta karşıya geçerim.

19. Bu öğlen büyük annemi doktora götürmek için söz vermiştim. Randevudan bir saat önce patronum arar ve hemen önemli bir toplantıya gelmemi söyler. Toplantı terfimle ilgili olacaktı. Ne yaparım?

- a) Büyükannemi doktora götürürüm. b) Patronumla toplantıya giderim.

20. Eve trenle gitmek istiyorum. Trene binerken, valizlerini merdivenden yukarıdaki platforma taşımaya çalışan ama başaramayan koltuk değnekli bir adam görürüm. Eğer adama yardım edersem, treni kaçıracam. Ne yaparım?

- a) Adama yardım ederim. b) Trene binerim.

APPENDIX IV

Approval of the Ethics Committee

T.C.
PAMUKKALE ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLERİ BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ KURULU

SAYI: 68282350/2018/G04

Toplantı Tarihi : 03.06.2020

Toplantı Sayısı : 04

Toplantı Saati : 14:00

S.N	Adı Soyadı	İmza
1	Prof. Dr. Ersan ÖZ	
2	Prof. Dr. Ertuğrul İŞLER	
3	Prof. Dr. Asım ÇİVİTÇİ	
4	Prof. Dr. Abdurrahman TANRIOĞEN	
5	Prof. Dr. Fatih YAYLA	
6	Prof. Dr. İsmet PARLAK	
7	Prof. Dr. Selçuk B. HAŞILOĞLU	

KARAR 5-Üniversitemiz Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi tezli yüksek lisans programı 172151015 nolu öğrencisi Tolga ZEYBEK'in danışmanlığını Dr. Öğr. Üyesi Filiz RIZAOĞLU'nun yaptığı "An investigation into the foreign language effect in decision making and" isimli tezine yönelik başvuru formunun usul ve etik açıdan incelenmesi talebiyle verdiği beyan ve ekler tetkik edilmiş olup; proje sahibinin, başvurusunda yer alan bilgi, belge ve taahhütnamelere uygun bilimsel davranışlar sergileyeceği kanaati oluşmuştur. İş bu karar oy birliği ile alınmıştır.

ASLI GİBİDİR
03.06.2020


Prof. Dr. Ersan ÖZ
Başkan

PERSONAL INFORMATION (CV)

Personal Information	
Name	Tolga
Surname	Zeybek
Birth place/ date	Lich, Germany 05/03/1995
Nationality	German and Turkish
Contact adress/ e-mail adress	Merkezefendi – Denizli tolgazeybek95@gmail.com
Educational Background	
Primary	Theodor-Heuss Schule, Laubach (2001-2005)
Secondary	Friedrich-Magnus Gesamtschule, Laubach (2005-2011)
High School	Wirtschaftsschule am Oswaldsgarten, Gießen (2011-2014) (form. Friedrich-Feld Schule)
Higher education (Bachelor's degree)	Pamukkale University, ELT (2014-2018)
Higher education (Master's degree)	Pamukkale University, ELT (2018-2021)
Foreign Language	
Foreign language	English
Exam name	YÖKDİL
Exam date	September 2018
Points received	91,25
Professional Experience	
2019-2020	Denizli Doğa Koleji