KU LEUVEN

FACULTY OF ECONOMICS AND BUSINESS

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An inter-linguistic study on the perception of language and the effect on altruistic behavior

The case for fundraising campaigns

Declercq Michelle

R0253734

Thesis submitted to obtain
the degree of Master in Business Engineering

MASTER IN DE TOEGEPASTE ECONOMISCHE WETENSCHAPPEN: HANDELSINGENIEUR

Major Marketing

Promoter: Prof. Dr. Andrea Weihrauch

Academic year 2014-2015

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With the world becoming increasingly interconnected and with resulting soaring number of views for advertising messages, it is necessary to analyze how maximum effectiveness can be obtained through these. One can deliberate in which language to write an advertising message, but the story does not end there, as research has shown that the perception of time is dependent on language and might therefore trigger different behaviors. Two grammatical categories exist when encoding time, namely verb aspect and verb tense. This study will focus on the interplay of language and verb tense in fundraising messages and how the perception of these influences altruistic behavior. The fundraising market is chosen, as research in this domain is relatively scarce but well needed due to limited resources. An online quantitative research is conducted to obtain the necessary input data. Results indicate a gap in altruistic intention and behavior for participants in the English condition, they indicated a higher likelihood to donate, however still donated the same amount as people in the Dutch condition. Results also show that people tend to act more altruistically as they grow older.

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Key words:
Advertising language, verb tense, altruistic behavior, time preference, Construal Level Theory (CLT)

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1 General Introduction

The effectiveness of a marketing message boils down to its power to persuade and thrive to change human behavior. Cacioppo and Petty were some of the most influential researchers in this domain during the last half-century and have published different papers on the link between communication, persuasion and attitudinal behavior (Kitchen et al., 2014). They introduced the Elaborate Likelihood Model (ELM), a model that assumes two distinctive routes to persuasion (Cacioppo & Petty, 1983). However in recent years this model has become somewhat doubted and outdated, certainly since the emergence of online marketing and social media. Some question the variables mediating the model, while others still believe in its validity (Luna et al., 2003). Other variables studied within the area of message-based advertising and persuasion are framing effects (Das et al., 2008), word and sentence structure (Cheng et al., 2012), ... Indicating that research exists on the grammatical front of message-composition, however it is still limited and has left some topics unexploited. Such a niche is verb tense; verb tense has mostly been studied and written about in the context of one language in spite of the fact that marketing often has a global reach, involving more than one language.

"Part of the art of designing persuasive communications is to choose the language that will communicate the intended message and beliefs. Focusing on these aspects entails thinking about how we say what we say, and then adding this *how* to the study of communication" (Carrera et al., p.1, 2004).

This quote highlights some important aspects. First of all is it important to select an appropriate language as a medium to transfer your message to the target audience in a persuasive manner. Once the language has been chosen, one should look deeper into the composition of the message. An influential study published by Chen (2013) reasons that languages across the globe differ widely in the ways they encode time, hereby triggering different behavior. Carrera et al. (2004) published a paper on verb tense across various languages for narratives, offering an initial stepping stone for further research and the fundamentals of this thesis.

Most marketing research has been happening for the profit sector because they have the necessary resources. However one can reason that with the upswing of corporate philanthropy, corporate social responsibility (CSR) and others, also more time and resources would be spent on this for the non-profit sector. This is in fact true and is what led to the concept of cause-related marketing. Unfortunately is this concept merely a strategy designed for companies in the profit sector to help attain their marketing objectives through support of a social cause (Barone et al., 2000) and falls therefore not

completely within the categorization of non-profit. The application of the marketing concept within non-profit organizations all started with the article published by Kotler and Levy (1969): *Broadening the Concept of Marketing*. Because charities tend to spend the main part of their marketing budgets on fundraising (Guy and Patton, 1989) and because individual donations make up the biggest sum of contributions, it is important that the marketing message is designed as such to produce a positive change in behavior with individual contributors.

As roughly delineated above is the purpose of this master thesis to investigate the effect of two topics on which research is scarce and scattered across domains, i.e. verb tense, language and their joint interaction effect on fundraising effectiveness in an inter-linguistic study. This leads to the following problem statement:

"Do verb-tense and language in phrasing fundraising messages affect the target audience its altruistic behavior?"

Two independent variables, verb tense, differentiating between the present simple and the present continuous, and secondly, the language in which the fundraising message is presented, based on its grammatical marking or non -marking of the future.

In case an interaction effect between verb tense and language is found, this research offers the basis for composing a comprehensive framework, outlining the interplay between these two factors. It also emphasizes the importance of selecting an appropriate language when creating an advertising message because of its far stretching effects. These findings can then be extrapolated and further researched within the global marketing domain, for example, what happens when code-switching is being used, this is the use of two languages within one campaign message. This research also offers an input on the debate whether language is a driver or rather an expression of culture and is therefore very useful within the research domain of biculturalism. Besides, it brings the scarcity in literature on both the grammatical aspect of message composition and fundraising awareness in the picture. With resources becoming scarcer and the world more interconnected, this becomes a hot topic, certainly when taking into consideration that a message is now seen X times as much as before due to online marketing and the viral spread it creates.

The next chapters will discuss, research and elaborate on all of the above in a more detailed manner. Chapter 2 will commence with a recapitulation of the problem statement, deriving the different research questions from it and laying out the conceptual framework and reasoning beyond each of these. Further it does offer an all-embracing literature review on the cornerstones of each research question, summarizing previous

literary work and setting out the different currents within each area of thought. Aiming to achieve full perspective with clear insight on the problem by the end of the chapter. In chapter 3 will the methodology of this research be unveiled. After providing the readers with the necessary knowledge on the proceedings of the experiment, the results will be presented in the course of chapter 4. Chapter 5 will then conclude this research with a discussion on the findings and shortcomings. Also possibilities for further research will be presented.

2 Literature review

The purpose of this master thesis is to investigate the effect of verb tense, language and their joint effect on fundraising effectiveness in an inter-linguistic study. This leads to the following problem statement:

"Do verb-tense and language in phrasing fundraising messages affect the target audience its altruistic behavior?"

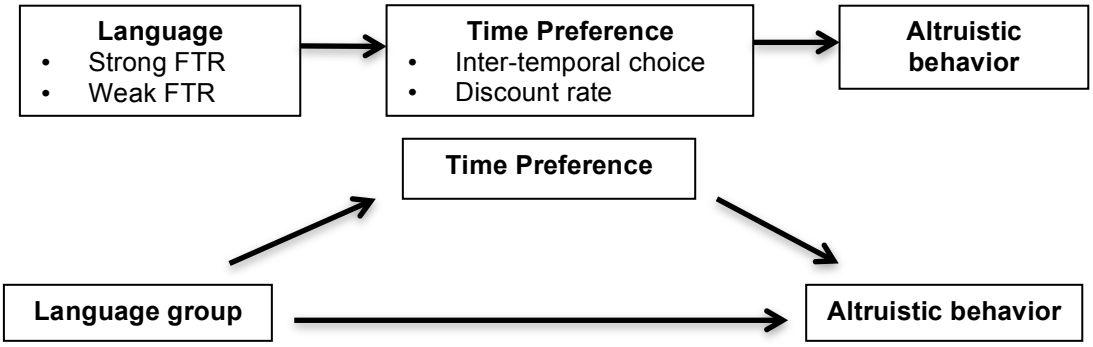
Two independent variables are present. First of all, there is verb tense, differentiating between the present simple and the present continuous. The second independent variable is a division between the languages in which the fundraising campaign is presented, based on their grammatical marking or non -marking of the future.

Dependent variable	Independent variable 1	Independent variable 2
Altruistic behavior	• Futured language (strong FTR) • Futureless language (weak FTR)	• Present simple • Present continuous

We will first start this chapter with sketching the conceptual model that will be used as a guideline throughout this research, hereby highlighting the most important concepts. These will then be more thoroughly discussed in the second part of this chapter.

EXPERIMENT 1: *Mediation*

Understand the process by which two variables are related



Research question 1

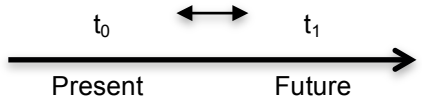
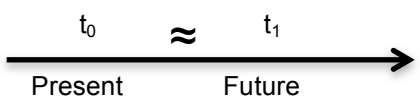
Is there a difference in altruistic behavior when exposed to different languages?

H_0: Weak FTR (futureless) languages lead its speakers to the same or less altruistic behavior as strong FTR (futured) languages.

H_a: Weak FTR (futureless) languages lead its speakers to more altruistic behavior as strong FTR (futured) languages.

The paper*: the effect of language on economic behavior* by Chen (2013) finds evidence for his linguistic-savings hypothesis: obligatory grammatical marking of the future when talking about the future leads speakers to take fewer future-oriented actions. For example, the English language (futured language) requires its speakers to make use of verbs like "is going to" or "will" when referring to the future, other Germanic languages like Dutch and German (futureless languages) do not require this and Chen has shown that the use of this future markers (will, going to) makes the speakers more impulsive and less future-oriented. He finds this impulsiveness reflected in saving behavior, wealth, smoking behavior and health care. This hypothesis arises naturally because the grammatical separation of present and future through the use of future markers (will, is going to) leads to a disassociation of future and present in the minds of its speakers. Therefore the future might feel more distant for speakers of futured languages, i.e. a larger temporal psychological distance.

Table 1: Overview of the distinction between the two language groups

Futured language (Strong FTR) Eg. English	**Futureless language** (Weak FTR) Eg. Dutch
	
Future is different than the present	Future is similar to the present

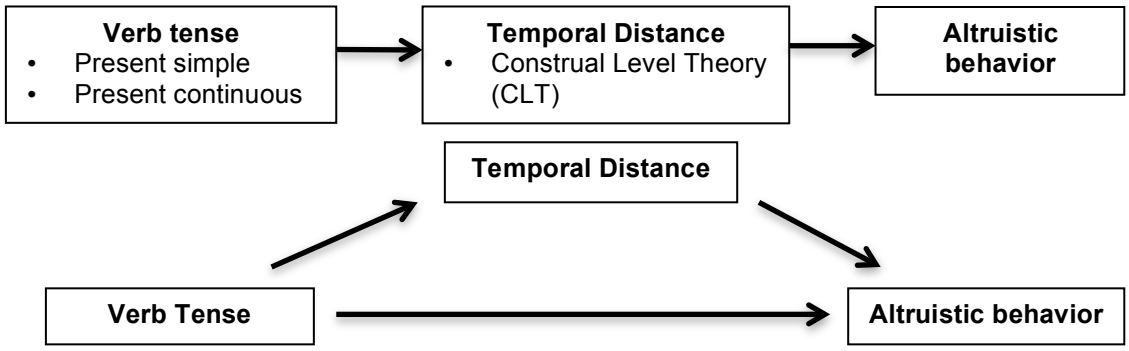
Note. Adapted from “Futured Languages”, a presentation by Prof. K. Chen, assoc. Prof. in Economics at Yale University.

Expressing this through use of a simple cost-benefit trade-off, a cost is made at t_0 (present) and compensated by a benefit at t_1 (future), means that futured language speakers perceive the time they have to wait for the benefit as longer than futureless language speakers. Implying that they require a higher discount rate to get the benefit at t_0 because they feel like they need to wait longer and need a bigger compensation for this. People with a high discount rate rather consume as fast as possible and are therefore less likely to engage in reciprocal altruistic behavior because altruism implies that you forego immediate consumption for a later benefit.

The hypothesis thus suggests that the relationship between language and altruistic behavior is mediated by time preference, i.e. a high or low discount rate. While futured language speakers have a high discount rate that makes them act more impulsive and spend their money on things from which they get more immediate benefits rather than to "invest" in charity, futureless languages lead to lower discount rates, which make its speakers more likely to make higher donations and engage more in altruistic behavior.

EXPERIMENT 2: *Mediation*

Understand the process by which two variables are related



Research question 2

Is there a difference in altruistic behavior when exposed to different verb tenses?

H_0: The present continuous leads to the same or less altruistic behavior as the present simple.

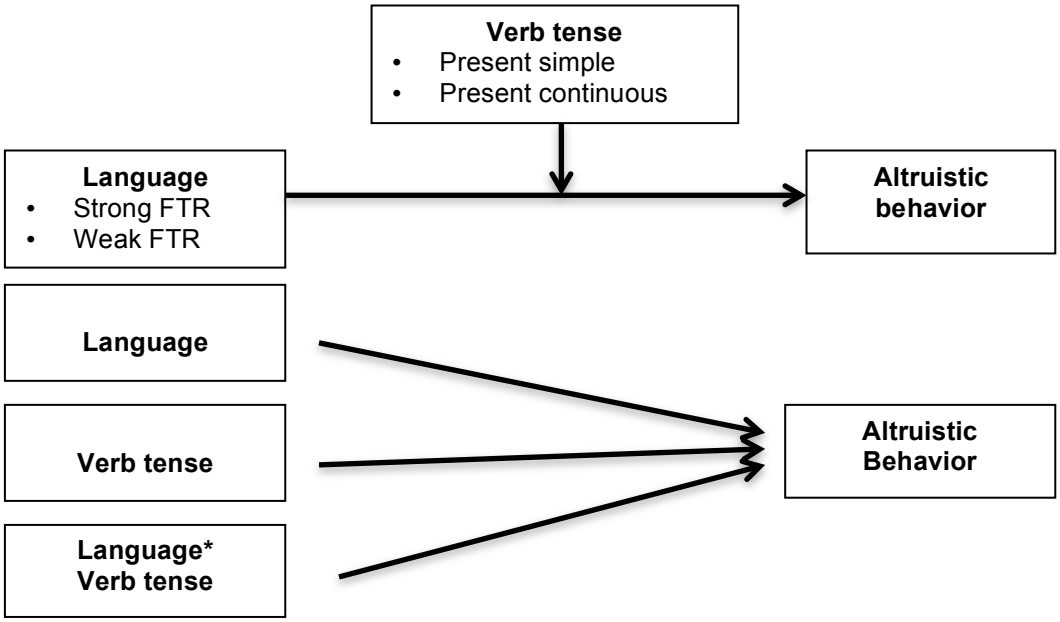
H_a: The present continuous leads to more altruistic behavior as the present simple.

As mentioned in the general introduction, Carrera et al. (2014) published a paper in which they manipulate both verb tense and language. They make use of Construal Level Theory (CLT) which states that the larger the temporal distance from t_0, the more likely events are to be represented abstractly (high-level construal) rather than more concrete (low-level construal) (Wakslak & Trope, 2009). This level of abstraction then represents the probability of the event. Less probable events are represented by a high construal level, i.e. more abstractly and more probable events rather by a low level construal, i.e. more concretely (Y. Trope & N. Liberman, 2003). Carrera et al. (2014) argue that this relationship between construal level and probability judgment works both ways and use it themselves for testing the effect of verb tense on likelihood and familiarity.

This hypothesis works further on the same reasoning that by manipulating verb tense; the probability of an event finding place can be influenced. In the case of fundraising a more concrete mind-set would be favorable, as this would induce a higher probability that the effective action of "giving" would take place. It is assumed that the present continuous is closer in temporal distance to t_0 than the present simple because it implicitly entails that the action or event is going on at the time being. Thus implying that the present continuous leads to a higher probability of people acting altruistically, mediated by their level of abstraction.

EXPERIMENT 3: *Moderation*

Assess whether variables have the same relation across groups



*2*2 Design*	**Weak FTR** eg. Dutch	**Strong FTR** eg. English
Present simple	Doneert u?	Do you donate?
Present Continuous	Bent u aan het doneren?	Are you donating?

Research question 3

Is there a difference in altruistic behavior when exposed to different verb tenses in different languages?

H_0: There is no difference in altruistic behavior in different languages and verb tenses

H_a: There is a difference in altruistic behavior in different languages and verb tenses

In the first experimental design was hypothesized that for weak FTR (futureless) languages the psychological temporal distance between future and present is minimized. This implies that their psychological time continuum is very small and are consequently less perceptible for variations on it, meaning that a distinction between present continuous and simple present will not have much effect. Strong FTR (futured) languages on the other side make a clear distinction between present and future and are therefore more perceptible for variations between these two points. Thus the distinction between simple present and present continuous will be more explicit.

It is hypothesized that in futureless languages in both verb tenses practically the same amount will be donated while in the case of futured languages, larger donations will be made for the present continuous condition than for the simple present.

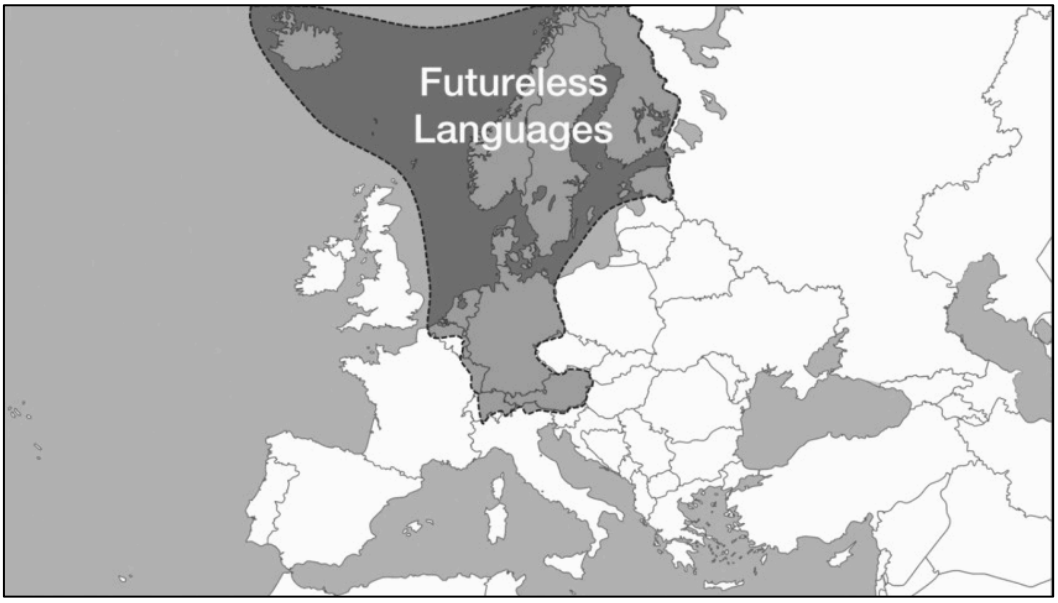
After mapping the general lay-out of this research by means of the problem statement and the subsequent research questions, all of which, underpinning the conceptual model, will now the most important concepts be discussed into further detail. An overview of the existing research on the different topics will be presented and opposing standpoints will be specified.

2.1 Language

2.1.1 Future time reference and the linguistic saving hypothesis

FTR stands for Future Time Reference and indicates whether a language belongs to the group of futureless or futured languages. This distinction is often encoded by saying that a language is strong FTR (futured) or weak FTR (futureless). Strong FTR languages (eg. English and Spanish) require a grammatical marking of future events while weak FTR languages do not (eg. German and Dutch)(Chen, 2013). These linguistics have firstly been adopted by the EUROTYP Tense and Aspect group during the nineties under the direct supervision of Östen Dahl (2000). In 2013 however this term was reintroduced by the Yale economist, Keith Chen when he demonstrated the correlation between grammatical marking of the future in language and future-related behavior. Thieroff (2000) graphically depicts these futureless languages in Northern and Central Europe.

Figure 1: Map of the "futureless area" in Northern and Central Europe



Note. From "Futured Languages", a presentation by Prof. K. Chen, assoc. Prof. in Economics at Yale University.

The linguistic saving hypothesis by Chen (2013) suggests that weak FTR languages lead their speakers to take more future-oriented actions. This is reflected in saving behavior, retirement wealth, smoking behavior, obesity and health care. The explanation for this hypothesis as put forward by Chen (2013) is that obligatory marking of the future will make the future seem more distant and thus less important to care about. Chen his study is from this viewpoint kind of exceptional as work by L. Boroditsky (2002) and other papers discussing the "Whorf-hypothesis" (see later), argue that stronger grammaticalization leads to more affection or caring, thus contradicting Chen his findings. (Dahl, 2013)

Chen (2013) exploits the fact that weak and strong-FTR languages often coexist within the native languages of the same country, helping him to isolate linguistic effects. This offers further evidence on the debate that language is rather a driver than an expression of culture. It has long been disputed whether the language we speak has an effect on our social cognition framework (Semin et al., 1992). This topic has come to be associated with the linguistic relativity theory, often also referred to as the Sapir-Whorf hypothesis, which argues that cognitive categorization is guided by linguistics and so language influences both thought and behavior (Sapir, 1970; Whorf et al., 2012). Chen and Benet-Martinez (2014) comply with this view, arguing that language activates corresponding cultural mind-sets and in turn influences social perception, thinking and behavior. People adopting this view have been called relativists, however here as well others have adopted a contradicting viewpoint, they are referred to as Universalists. Universalists believe that all the people have the same basic cognitive processes because all the languages in the world share the same underlying structure (Chomsky, 1964). Some even argue that human beings think in a meta-language different from the one they use to communicate (Pinker, 1994).

2.1.2 Which advertising language to choose?

When setting up marketing slogans it is often disputed in which language to do so. Stern (1988) pointed out that choosing the right advertising language could enhance effective communication with the target audience. Over the recent years this discussion has become more heated and different standpoints have been adopted. Puntoni, De Langhe and Van Osselaer (2009) offer evidence that textual information such as marketing slogans, expressed in consumers' native tongue tends to be perceived as more emotional than messages in their second language. When talking about fundraising campaigns this might be an important factor because the donating behavior of people is highly dependent on how emotional affected they are by the fundraising campaign, people tend to act more pro-socially when they are emotionally moved (Stel, Van Baaren and Vonk, 2008). A lot of the research on advertising language is done with bilinguals, the reason for this is that they are useful in revealing linguistic effects. Noriega and Blair (2008) found in their research on advertising to bilinguals that different languages might trigger different associations for the same message. Additionally, the native language can trigger thoughts of family, friends and others that might lead to more positive attitudes towards the campaign, this can create some emotional bonds, which are good to consider when talking about charitable giving as already mentioned above. The title of the paper Van Vaerenbergh and Holmqvist (2013) also offers a clear standpoint: Speak my language if you want my money. The study handles about people their intention to tip the service deliverer when this one speaks either in their first or their second language.

However this is not the specific topic of this research it can be used in analogy for people their intent to "tip", in this case "to donate", when being reached out to in a certain language. Luna & Peracchio then propose two other reasons for advertising to bilinguals in their mother tongue: (1) (2008) culture specific concepts are activated when cued in a certain language, this is in line with the findings of Noriega and Blair (2008) and (2) (2002) people seem to have a better functioning memory in their native language. Luna & Caroll (2011) add to this by proving that fluency decreases when another language than the mother tongue is used in advertisements.

On the other side of the continuum, there is research that promotes English as a more obvious choice because it stands for globalization, freedom, new-age, success, ... The spread of English as an advertising language happened as a synergy of different products. First was there the spread of products from the English speaking countries to the rest of the world but also the influence of mass media in all of this cannot be withhold (Hjarvard 2004; Jacquemet 2005). Kuppens (2009) identifies three main explanations for the use of English as defined by previous literature (the larger marketing campaign, cultural connotations and creative linguistic reasons) and proposes intertextuality, this is the interdependence of all texts upon the meaning or structure of other texts, as a fourth one. Additionally, in multilingual countries[1] English might be used to reach all the inhabitants of a country with one sole marketing slogan and avoid the need to adapt the campaign to the different languages spoken within a country (Cheshire and Moser, 1994).

However in recent years, a new linguistic branch has arisen combining both of these extremes, i.e. English versus people their native tongue. In literature this phenomena is referred to as code switching (Luna & Perrachio, 2005) and implies the use of multiple languages within a certain slogan, campaign or advertisement. The effectiveness of this method is still disputed and Kuppens (2009) argues that code-switching might be a new and innovative way to address different language groups at the same time while other such as Lipski (2005) fear that this new method might lead to a grammatical downgrade of both languages involved. Luna & Perrachio (2005) argue that the words in the non-native language might direct some extra attention towards them and therefore making perception and recall easier.

[1] These countries are Belgium, Burkina Faso, Ethiopia, Estonia, The Democratic Republic of the Congo, Nigeria, Malaysia, Singapore and Switzerland.

2.1.3 Bilingualism

Often is the definition of a bilingual person confused with the one of a bicultural bilingual individual. This difference might seem trivial but is in fact very important. Grosjean (1994) defines bilingual individuals as "those who use two or more languages (or dialects) in their everyday lives" (p. 1656). Bicultural bilinguals on the contrary, also just referred to as biculturals, are those individuals who have adopted two cultures and also speak the languages that go along with these different cultures. Thus biculturals have incorporated two cultures and when cued by one of both languages, distinct culture-specific concepts are activated. This process is referred to in the literature as “frame switching” (Briley et al. 2005). So it is not possible for bilinguals to frame switch, i.e. switch from one set of mental frames to another, if they are not bicultural (Luna, Ringberg & Peracchio, 2008). This implies that when bilinguals are primed with a certain language and they show different behavior, a purely linguistic effect takes place and it is not due to a cultural distinction.

2.1.4 Time, verb aspect and tense

The way time is encoded has an influence on how time is perceived and the grammatical building blocks known to encode time are verb aspect and verb tense (Klein, 2013). Carrera et al. (2014) examined the influence of verb tense on how abstractly people construe actions. The results revealed that events were described more abstractly when texts were written using the simple past tense than when the simple present tense was being used. This because the present is more familiar and feels closer than the past, it was perceived as ongoing. This was an extension to existing research that has been linking temporal distance to construal level theory (CLT) (Trope et al., 2003). In line with this CLT and the perception of action has also some research been done on verb aspect, this is whether verbs contain a perfective or imperfective component. The perfective is rather used for actions that have been completed whilst the imperfective is rather used for ongoing actions; this has been researched and documented by several. (Madden & Zwaan, 2003; Hart & Albaraccin, 2009). Both the present simple and continuous possess an imperfective aspect as they handle about an action or event that has not ended yet in contrast to the simple past, which contains a perfective aspect while the action or event in question has ended.

2.2 Charitable giving and/or altruism

2.2.1 A definition

The MacMillan Dictionary of English defines altruism as a way of thinking or behaving that shows you care about other people and their interest more than you care about yourself. It is often related to words such as friendliness, generosity and kindness. The article, *What is altruism?* by Kerr et al. (2004) offers a more specific definition, "Altruism is generally understood to be behavior that benefits others at a personal cost to the behaving individual" (p. 1).This definition makes the cost-benefit trade-off explicit however it is written from a biological standpoint and is for that matter not perfectly fit in this setting. Another article although that goes under the same name as the latter did define altruism from a psychological viewpoint as the equivalent of charity and so altruism can be used interchangeably with charitable giving (E. Khalil, 2004). Walker (2004) then argues that altruism is rather the driving factor behind charity. Lee et Al. (2007) recognize that giving to charities takes two major forms: time and money**.**

The way in which charities have tried to reach the people to raise funds has undergone different waves of change during the last 50 years. The first wave took place in the early 70s when the market environment went through some drastic changes and due to decreasing governmental and public support, the charity sector had to turn itself to marketing as a new source of income (Kotler, 1979; Hibbert & Horne, 1996). Charities had to become increasingly dependent on individual donors for funding. However, during the 2th wave, another important donor made its march, namely the corporate philanthropists. This divided charity contributors into two big groups: individuals and corporate philanthropists. Corporate philanthropy is the charitable donations made by corporations to non-profit organizations (Caroll, 1999) and is what induced the birth of cause-related marketing, a strategy designed for companies in the profit sector to help attain their marketing objectives through support of a social cause (Barone et al., 2000; Varadarajan and Menon, 1988). The third wave came with the turn of the millennium, when new technologies entered people's daily lives and they had never been so well connected before. This was then as well implied by the title of the world famous article written by T. Friedman (2005): *The world is flat.* This increased connectedness helped fundraising campaigns by allowing them to reach a broader range of possible donors with some new and inventive techniques at their disposal, eg. crowd-sourcing (Mitra & Gilbert, 2014). It is with the accumulation of these last two waves that the charity, NGO and fundraising-market were able to boom over the last decennia.

2.2.2 About costs, benefits and inter-temporal choice

There exist two sorts of altruism, i.e. kin altruism and reciprocal altruism. Following Hamilton (1964) a distinction can be made, based on the level of relatedness between benefactor and beneficiary. Kin altruism involves making a personal cost to benefit a genetic relative its chance of survival and so the altruist ensures the survival of his genes (Ashton et al., 1998). Thus kin altruism involves a close relation to the beneficiary in contrast to reciprocal altruism, where the beneficiary might even be completely unrelated. Both definitions however contain an important cost-benefit trade-off. They forego costs in the expectation to reap some benefits of it later (Trivers, 1971). Rachlin & Jones (2008) showed that altruism varies inversely with social distance, i.e. the closer related benefactor and beneficiary are, the more altruistic the benefactor will most likely be. Stephan et al. (2011) also come to this conclusion by using Construal Level Theory. They find that the smaller the social psychological distance is, the faster somebody will be prone to sharing its resources. This explains why generosity tends to be lower in the anonymity case (Bekkers, 2007). Charitable giving can be interpreted as an individual making a contribution from its own private goods to a public good (Hochman & Rodgers, 1969; Kolm, 1969). Remark that the charity is seen as a public good because it is not possible to prevent non-contributors from also benefiting (non-exclusive claim), neither is there a cost associated with others enjoying these benefits (non-rivalry claim)(Breman, 2011). However the recipients of the charity do receive a private good.

Table 2: Overview of the different types of goods

TYPES OF GOODS	Excludable	Non-excludable
Rival	Private goods	Common goods
Non-Rival	Natural monopolies	Public goods

Note. Adapted from “Advancing the concept of public goods” by Kaul, I., & Mendoza, R. U., 2003, Providing global public goods: Managing globalization, p. 78-111

When defining altruism, was mentioned that charitable giving comes in two forms, namely money and time (Lee et al, 2007). These can be seen as the cost of being altruistic, namely the private consumption that is being missed out on because the time and money are being used to other ends (Breman, 2011). The benefit as well is two sided. First of all does the benefactor benefit by setting up the public good, i.e. the charity and secondly, something what literature calls, a "warm glow" (Andreoni, 1989 & 1990). Warm glow is nothing more than the purely internal satisfaction that comes from the act of giving (Harbaugh, 1998). So the warm-glow is realized at the moment of giving, i.e. time zero. The contribution to charity itself however does not yield immediate benefits for the

benefactor; therefor an inter-temporal choice component is present. The benefactor has to make a trade-off between the present cost of giving and the future result to him of this donation (Breman 2011). The discounted utility model (DU) was firstly introduced in 1937 by Samuelson and has dominated economic analyses of inter-temporal choice since then (Loewenstein et al., 1992), it states that people have a single unitary rate of time preference that they use to discount the value of future events to point zero in time, i.e. the present. A high discount rate means that people are impatient and they are willing to pay a lot more to have the event taking place at t_0 instead of t_1. A lower discount rate means that people are more patient and that they do not want to pay as much. Putting this into a cost-benefit trade-off means that when a cost is made at point zero in time, the people with a high discount rate will want a higher benefit in return at t_1 for a cost made at t_0 than the people with a low discount rate. Loewenstein et al. (2003) define inter-temporal choice as something we do when we make trade-offs between costs and benefits occurring at different points in time. Historically, it was assumed that delayed rewards were discounted at a constant rate over time but recent theoretical and empirical advances from economic, psychological and neuroscientific perspectives, however, have revealed some anomalies when people make inter-temporal decisions. Loewenstein et al. (2007) discuss these extensively. Research by Liberman et al. (2002) also explores the cognitive mechanisms that thrive the effects of future time perspective on judgment, evaluation, and decision and thus why discounting rates in future outcomes are sometimes steeper than would be proposed by economic theory. Here again do they make use of Construal Level Theory and how abstractly the mental representations of actions are.

3 Data and Method

In the first part of this chapter will primarily the general setting of this study and its direct consequences be discussed. Then follows a detailed description on the method by which this research is conducted. Hereby laying the ground plan for the next chapter, that is, the results section.

3.1 Setting

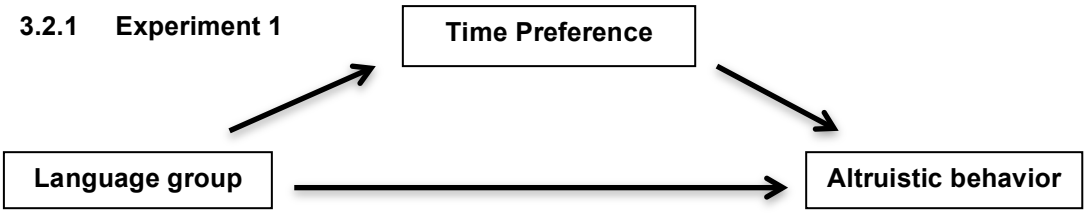
As this is an inter-linguistic study, it will make use of people who speak different languages. This implies that the participants will often be geographically dispersed, which makes them hard to reach and contact through a qualitative research. Therefor a specific type of quantitative research comes to mind, i.e. the online questionnaire because it takes advantage of the Internet to reach thousands of people with common characteristics in a short amount of time, regardless of their geographic location (Bachmann & Elfrink, 1996). Following now are some additional advantages of this data collection method. Firstly, an online survey allows reaching a bigger audience and the law of big numbers prescribes that this helps converging the obtained values to the expected value. Another advantage is that Internet-based research may save time, not only because of its easy access to people but also because there is a time saving in the documentation of the data. Everything is already in binary format and can easily be transformed into other formats. Online survey researchers can also save money as it renders paper superfluous (Couper, 2000) and other additional costs (eg. recording equipment, travel, telephone) can be eliminated as well (Wright, 2005).

The dependent variable in this study, i.e. altruistic behavior, might contain some confounding variables, which need to be controlled for. These can be grouped under the denominator of socio-demographic variables and partially determine the setting in which this study will take place. The most influential socio-demographic control variables are: age, gender and educational level. Angerer et al. (2014) study altruism with children and find that the donation amount increases with age, so people become more generous when they get older. They also find that girls donate tremendously more than boys. This argument is supported by different other studies (Eckel and Grossman, 1996; Andreoni et al., 2003; Havens et al., 2006). Also education might create a potential bias. People with a higher diploma are more likely to earn a higher salary, which makes them capable of making higher donations to charitable causes (Bekkers, 2006, 2007; Brown 2005). So excluding people younger than the age of 18 will make sure that most of these confounding variables are controlled for. This is, 18 is the age by which people are

perceived as adults by the law in both Belgium and the Netherlands and most of the participants in this study will originate from either of these two countries due to the language restrictions as stated above. From this age will people be more conscious about their decision-making and will the variance in donation amount be reduced. Additionally is school attendance compulsory until the age of 18, which makes sure that the participants will have some diploma by that age. The paper by Vahedi et al. (2012) discusses the diverse ways to control for confounding variables with statistical analysis. First through the experimental design itself, in this case randomization and secondly after the data gathering process through statistical analysis. Both methods will be applied.

3.2 Method

3.2.1 Experiment 1



The dependent variable in this study is altruistic behavior and will be measured by the amount of money donated by the subjects to a certain charity. This is a quantitative between-subject design as the purpose of this research is to investigate whether the participants, categorized on independent variable (IV), differ on the dependent variable (DV). Angerer et al. (2014) who did an experimental study on donations, risk attitudes and time preferences used a dictator-game like setting to measure altruistic behavior. In the classical dictator game, the first mover (the 'dictator') decides on how much money to give to the other party and this decision gets implemented automatically without the other party being able to refuse (Camerer, 2003; Engel, 2011). The dictator game is often used in psychological and behavioral experiments as the manipulation is flexible and the results easy interpretable (Zizzo, 2011). The latter one then researched the effectiveness of dictator games and found that the extent to which they actually work are limited by experimental control problems. These experimental demand characteristics are all the indications that might reveal the hypothesis of the experiment to the participants of the study (Orne, 1962). Bekkers (2007) found that these could be avoided by measuring altruism through online surveys. This study makes use of a slight variation on the dictator game, namely by using a lottery setting to elicit people's preferences. The fact that a lottery will be used will be announced in the beginning of the questionnaire as Frick et al. (1999) have shown that this leads to drastic lower dropout rates in online surveys. The participants will be eligible for winning 20 euros and can then choose how much of these

20 euros they want to donate to a charity of their own choice. However some might argue the validity of the game as a measure of altruistic behavior. Bekkers (2007) evaluated the validity of a dictator game by a comparison of observed donations in the game and self-reported donations to charitable organizations in the past year. In this case will the validity of the game be evaluated by offsetting the observed donations against a genuine altruism scale, more specifically, the self-report altruism scale (SRA) by Rushton et al. (1981). It is a 20-item scale designed to measure altruistic tendency by counting the frequency (continuous scale) with one acts altruistically towards strangers.

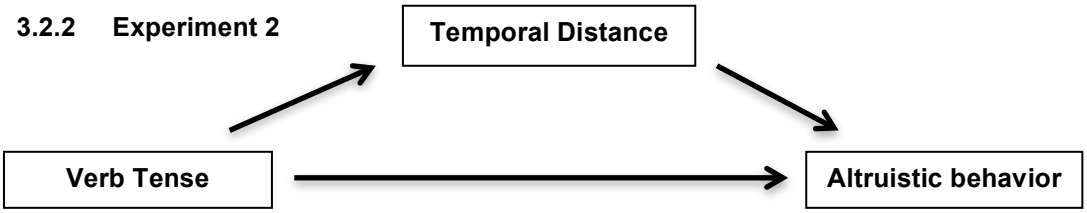
The independent variable in this experiment is language group. The study will make use of Dutch-English bilingual individuals; notice that they therefore do not need to be bicultural as well, as we examine a linguistic effect that is independent of cultural switching. The surveys will be randomly distributed in either Dutch (weak FTR) or in English (Strong FTR) and so will one of both languages be activated in the mind of the participants. The use of bilinguals makes it possible to find a purely linguistic effect, not influenced by cultural differences across groups.

The data analysis of the first experiment will be started with a single factor ANOVA[2]. This following the example set forward in the work by Korchmaros & Kenny (2001). They researched the emotional closeness as a mediator for the effect of genetic relatedness on altruism. After quantifying the direct effect and controlling for the confounders through an ANCOVA will be started with the mediation analysis. However it seems intuitive that, without a direct effect, there is no point in further investigating whether the relationship between the independent variable and the dependent variable is in fact mediated (Zhao et al., 2010). Time preference will here be the mediator variable and will be measured through a short discounting exercise, taking place in the lottery setting, this to the example of Benhabib et al. (2004) where they investigate the framing-effects on such a discounting rate. A single-mediation model will be used. An often-used method for testing mediation is the Sobel test (Sobel, 1982), but MacKinnon et al. (2002) proved that this method has very low statistical power and a high type I error rate. The test requires a high number of observations because it evaluates the data on the normal distribution, so this normal distribution assumption makes the sobel test not adequately fit for this research. A recent trending method called "bootstrapping" (Efron & Tibshirani, 1994) makes abstraction of this normality assumption, thus requiring fewer observations and has a higher statistical predicting power. This is then also the method that will be used for this experiment. Preacher & Hayes (2008) introduced INDIRECT, which is a macro for

[2] An independent t-test would also be appropriate in this case, however as also needs to be tested for the covariates later on, it is easier to start with an ANOVA. Both tests generate the same results.

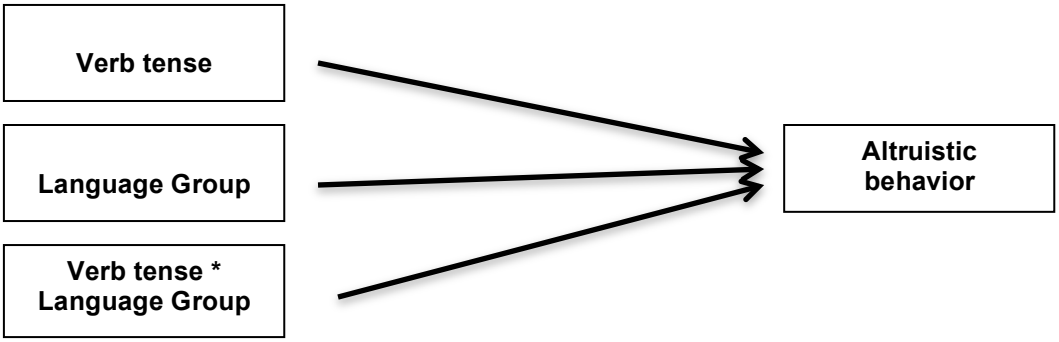
SPSS that helps estimating the path coefficients (a, b, c and c") and also helps constructing the needed confidence intervals. This model has been updated and expanded over the last years and recently was PROCESS released. This is a macro with the same functionality as INDIRECT but with even more possibilities (Hayes, 2008). In a white paper by Hayes (2012) is the use of PROCESS well explained an exemplified. PROCESS model 4 with a bootstrap interval of 5000 is perfectly adequate for this analysis because it tells SPSS to estimate a simple unmoderated mediation model.

3.2.2 Experiment 2



Experiment 2 follows the same procedure as experiment 1. The dependent variable is similar and will consequently be measured in the same manner. However both independent and mediator variable differ. The independent variable here is verb tense and refers to whether the participants are exposed to a fundraising campaign in either the present continuous or the present simple. This exposure is completely randomized and participants are required to do a short awareness check to make sure they pay enough attention to the campaign. The mediator variable is the temporal distance and will be measured by asking the participants to fill in a question, identifying their level of abstract/concreteness. The rest of the method is completely similar to the first experiment concerning statistical analysis. First an ANOVA, followed by an ANCOVA and then a bootstrap method to test for mediation, using PROCESS for with a bootstrap interval of 5000.

3.2.3 Experiment 3



For experiment 3 is moderation a perfect fit because it makes the interaction between the two independent variables explicit, it can be written out as follows:

$$Y = i_1 + b_1X + b_2M + b_3XM + e_Y$$

A. Hayes (2008) devotes a whole chapter of his book to this statistical term and also describes the differences with mediation. He also discusses the phenomena when mediation and moderation emerge simultaneously in the same study setting or experiment, i.e. mediated moderation or moderated mediation. In a white paper he offers some more depth into the computational aspect of moderation and how to run it in PROCESS (Hayes, 2012). As in experiment 1 and 2 will this white paper be used as a guideline for the moderation analysis. PROCESS, model 1 with a bootstrap sample of 5000 will be used to estimate the moderation model, once with and once without inclusion of the control variables.

4 Results

All statistical analyses were performed using SPSS, which stands for the Statistical Package for Social Sciences, version 23.0. Throughout a significance level of 0.05 was employed. A total of 182 persons took part in the survey, evenly divided through randomization over the 4 conditions, overview:

*2*2 Design*	**Weak FTR** Dutch	**Strong FTR** English
Present simple	Doneert u? *42 participants*	Do you donate? *47 participants*
Present Continuous	Bent u aan het doneren? *45 participants*	Are you donating? *48 participants*

Before starting off and investigating the results of the mediation and moderation analysis, it is important to have a thorough look at the responses and examine the data properly. This part is often called "data screening". We will look at the previously mentioned control variables and how they are distributed.

An uneven distribution on each of the control variables is found when categorized on verb tense and language group (2*2). When the age of all the participants is plotted, a positively skewed distribution is found, meaning that a significant part of the sample was relatively young (M=28.27, SD=11.213). A one-way ANOVA shows that there are no statistically significant differences between group means $F(3, 178)=1.127$, p =0.34)

Also for the control variable educational level is a skewed distribution noticeable, in this case a negatively skewed one. Indicating that most participants fall into the pre-defined categories of high school diploma (=1), academic (=2) or professional bachelor (=3) and master degree (=4). With most people in the running of obtaining or yet having obtained a master's degree. Only few have obtained a degree that falls not within this categorization (=5) (M=3.23, SD=1.082). Here a Chi-square statistic[3] is ran to see if there are significant differences in means across groups. The results shows that there is not, $\chi^2(12,N=182)=13.256$, p= 0.351.

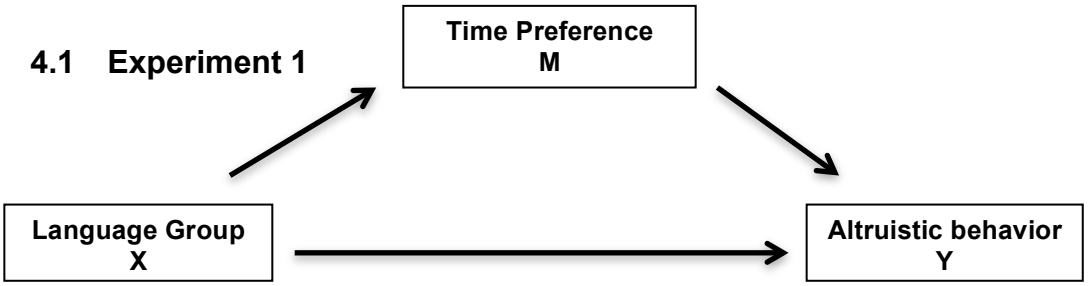
Then, concerning the distribution of men and women across groups. A larger group of feminine participants is present in each of the groups, making up nearly 60% of all participants. With men (=1) and women (=2) (M=1.59; SD=0.494). A Chi-square statistic

[3] Note that we use a Chi-square statistic because diploma or educational level is a categorical variable, in contrary to age, which is a continuous variable and therefore asks for a one-way ANOVA.

here as well shows that the difference across groups is not significant [χ^2(3, N=182)=0.858, p= 0.836].

Now that the preliminary data screening has been finished, will be commenced with the analysis of the results of each of the subsequent experiments. In a first step, the three altruistic measures used in the studies will be set into relation to each other. The measures are a real behavioral measure, a self-reported likelihood for that behavior and a self-reported general altruism scale; this will serve to confirm the importance of using the behavioral measure for the analysis. First, is examined if the behavioral measure of altruism, which serves as the main dependent in the framework, does effectively measure altruism. This is why we offset it against the results obtained by using the self-report altruism scale (SRA) by Rushton et al. (1981). The coefficient alpha as an estimate for the reliability of this scale ranges between 0.78 and 0.86 for five independent samples. Because the normality assumption for the data is not met is a two-tailed spearman correlation test used, we find that there is no significant correlation between these two variables, r(180)= 0.098, p>0.05. However when we offset the self-estimated likelihood to donate variable against the SRA, a significant correlation is found, r(180)=0.04, p<0.05. This brings an important insight to the table that will be kept in mind throughout the proceedings of this study because it indicates a gap between how people perceive their own altruistic tendency and how they actually handle. Several psychological models[4] are built on the assumption that intention is the most important predictor of behavior. Sheeran (2002) then studies the size of this intention-behavior gap and analyzes which psychological variables might be able to moderate it. This gap has been researched in several domains (Kollmuss & Agyeman, 2002), however for fundraising and altruism is this topic still quite unexplored. For the rest of the analysis, will thus be worked with the amount donated as well as the self-reported likelihood as measures for the dependent variable.

4.1 Experiment 1



[4] The most important models are theory of reasoned action (Fishbein & Ajzen, 1975), theory of planned behavior (TPB) (Ajzen, 1991), attitude-behavior theory (Triandis, 1980) and the protection motivation theory (Rogers, 1975).

First is the relationship between X and Y examined without the presence of M, this is equivalent to the following equation:

$$Y = i + cX + e_Y$$

A single factor ANOVA is used, as this is the common method for comparing multiple averages for a single variable, here, altruistic behavior. We find that there is no significant main effect for language and for that, the null hypothesis cannot be rejected [$M_{English}$=13.768 (SD= 7.8262) vs. M_{Dutch}=12.838 (SD= 8.345); F(1,180)=0.603, p=0.439]. However bearing in mind the finding that self-reported likelihood to donate differs from actual behavior, we re-run this test with likelihood to donate[5] as a measure of the dependent variable. Now there is a significant effect of the IV, language, on the DV, altruistic behavior, at the p<0.05 level [$M_{English}$=3.58 (SD= 1.717) vs. M_{Dutch}=3.01 (SD= 1.451); F(1,180)=5.745, p=0.018]. The results show that people who filled in the English survey showed a higher likelihood to donate then the people who filled in the Dutch survey (figure 2).

ANCOVA for donation behavior

We believe that diploma or educational level has a positive impact on donation behavior because it often leads to a higher disposable income to be spent on altruistic purposes (Bekkers, 2006, 2007; Brown 2005). Also age has shown to have an effect on altruistic behavior (Kottasz, 2004), with professionals older than the age of 40 being more likely to make a donation. We also include gender as a covariate as women have been shown to be less selfish in previous dictator experiments (Eckel & Grossman, 1996).

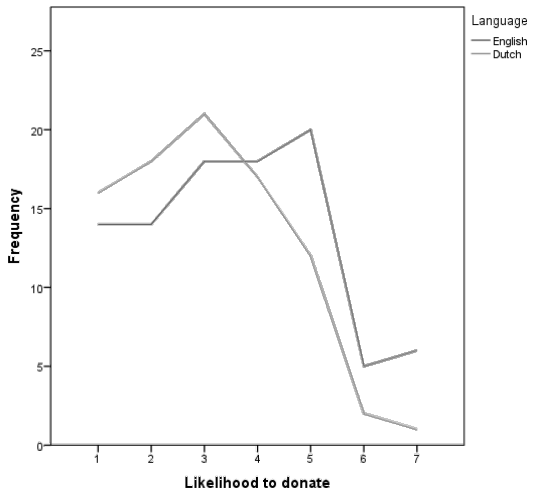


Figure 2: Participants who filled in the English survey indicated a higher likelihood to donate then those who filled in the Dutch survey.

[5] A scale ranging from 1 to 7 was used for this measure, with 1= no chance and 7= certainly.

An ANCOVA on donation behavior whilst controlling for age, gender and education revealed the same results, dependent on the language groups, as with the previously executed ANOVA. The null hypothesis cannot be rejected at the p<0,05 level. Both language groups donate equal amounts on average [$M_{English}$=13.768 (SD= 7.8262) vs. M_{Dutch}=12.838 (SD= 8.345); F(1,177)=0.439, p=0.509]. Both gender [F(1,177)=1.429, p=0.234] and diploma [F(1,177)=1.444, p=0.231] did not have an effect on the donation behavior, i.e. the amount donated. However for the variable age was a significant effect noticeable [F(1,177)=8.928, p=0.003], indicating that as people get older, they also tend to become more altruistic as the donation amount becomes larger, thereby supporting previous research (Midlarsky & Hannah, 1989; Angerer et al., 2014)(figure 3).

ANCOVA for donation likelihood

An ANCOVA is ran for the second dependent variable, donation likelihood. Here as well reveals the ANCOVA a similar result as before whilst controlling for the covariates. Thus in this case a significant main effect of language on the self-reported likelihood to donate is present, with people exposed to the English condition, reporting themselves as more likely to make a donation than in the Dutch condition [$M_{English}$=3.58 (SD= 1.717) vs. M_{Dutch}=3.01 (SD= 1.451); F(1,177)=5.531, p=0.020]. However a significant effect of age was noticeable in the ANCOVA case for the other dependent variable, this is now not the case. Neither of the covariates affects the donation likelihood estimate [F_{age}(1,177)=2.12, p=0.147; F_{gender}(1,177)=0.104, p=0.747; $F_{diploma(}$1,177)=0.662, p=0.417].

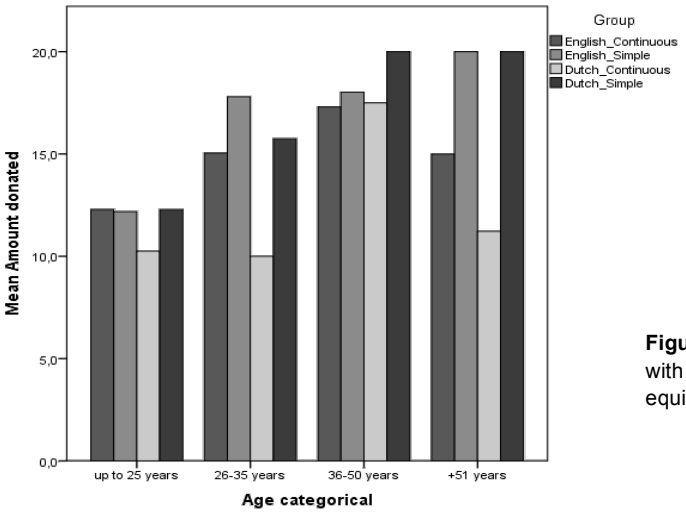


Figure 3: The donation amount varies in line with age, older people tended to donate equivalent larger amounts.

After establishing the relationship between language and self-reported likelihood to donate, is investigated if this relationship is in fact mediated by time preference. The SPSS macro, PROCESS, developed by Hayes (2008) is used. For mediation is model 4 adequate with a bootstrap sample of 5000 draws. For path a from language group to time preference the results show a value of 15.81 (p=0.78), for path b (from time preference to altruistic likelihood) a value of -0.0001 (p=0.65) and for the indirect path via time preference, path c, a value of -0.5852 (95% confidence interval -1.0335, -0.096). The results show again a significant direct effect (p=0.0176), indicating that the relationship between language group and altruistic likelihood is not mediated by time preference.

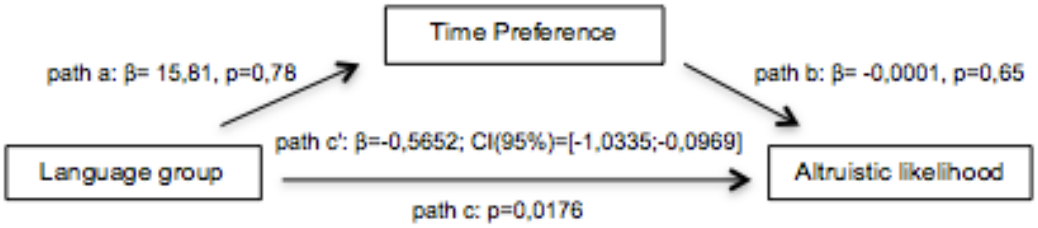
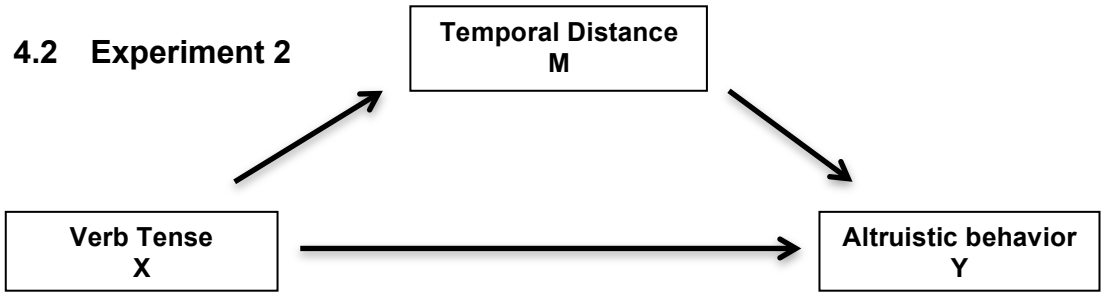


Figure 4: Coefficients and p-values for the relationship between language group and altruistic likelihood, mediated by time preference.

Inclusion of the covariates (age, gender, diploma) into the mediation analysis does not affect the results. Results show a value of 11.0335 for path a (path from language group to time preference; p=0.847), a value of -0,0001 for path b (path from time preference to altruistic likelihood; p=0.65) and for the indirect path, path c, a value of -0,558 (95% confidence interval -1.0261, -0.0873). The direct effect of language group on altruistic likelihood was here again significant (p=0.0198), thereby not supporting the full mediation claim. With these conclusions in mind, is proceeded to the second experiment.

4.2 Experiment 2



This experiment follows the same course of action as the first one. First is tested by means of ANOVA if a relationship exists between verb tense and both dependent variables, these are, altruistic behavior and altruistic likelihood. Afterwards is an ANCOVA used to see whether the results change when controlling for the covariates.

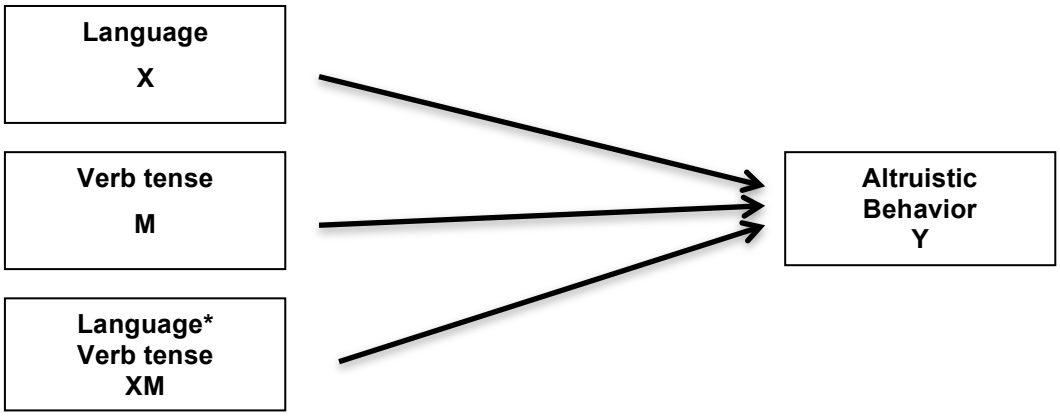
ANOVA

For the first dependent variable, donation behavior, the results show that the null hypothesis cannot be rejected [$M_{Continuous}$=12.663 (SD= 8.3437) vs. M_{Simple}=14.013 (SD= 7.7592); F(1,180)=1.275, p=0.26], meaning that no significant relationship between verb tense and altruistic behavior is present. Now this test is re-ran to see if this relationship is present for the second dependent variable, this is, donation likelihood. Here as well the results do not show a significant effect [$M_{Continuous}$=3.30 (SD= 1.647) vs. M_{Simple}=3.31 (SD= 1.593); F(1,180)=0.003 and p=0.955]. Now is examined if inclusion of the controls alters the results and the effects become significant.

ANCOVA

An ANCOVA on the altruistic behavior measure whilst controlling for age, gender and diploma revealed the same results for the independent variable verb tense, as in the previously executed ANOVA [$M_{Continuous}$=12.663 (SD= 8.3437) vs. M_{Simple}=14.013 (SD= 7,7592); F(1,177)=2.468, p=0.118]. Both gender [F(1,177)=1.629, p=0.203] and diploma [F(1,177)=1.14, p=0.287] do not seem to affect the donation amount. However age [F(1,177)=10.345, p=0.002] does appear to have an effect here. This is in line with the results for the ANCOVA of this dependent variable of experiment 1, i.e. that as people get older, they tend to donate larger amounts. An ANCOVA is ran for the second dependent variable, altruistic likelihood. Here as well do the controls not significantly alter the effect [$M_{Continuous}$=3.30 (SD= 1.647) vs. M_{Simple}=3.31 (SD= 1.593); F(1,177)=0.038 and p=0.845], nor is an effect observable of the control variables on the donation likelihood estimates [F_{age}(1,177)=2.466, p=0.118; F_{gender}(1,177)=0.079, p=0.778; $F_{diploma}$(1,177)=0.48, p=0.49]. With no significant direct effect for either of the dependent variables, it does not make sense to see whether this relationship is mediated by construal level, and so is proceeded with experiment 3.

4.3 Experiment 3



However no significant effects were found in the previous experiments, the joint interaction of verb tense and language group might provide insights into the relation of our independent variables and the dependent. The PROCESS procedure for moderation is ran, this is model 1 with a bootstrap sample of 5000 draws. It is done for both dependent variables, once without and once with control variables, first starting with altruistic behavior, followed by altruistic likelihood.

The results show a value of -0.9131 for the path c_1, this is the path between language group and altruistic behavior (p=0.447), a value of 1.3397 for path c_2, the path between the M and Y (p=0.2647), and a value of 2.2755 for the interaction XM, also, the path c_3 (p= 0,3438). Indicating that the quantified relationship between the predictor, language group, and outcome, altruistic behavior, does not change under the influence of the moderator, verb tense (figure 5).

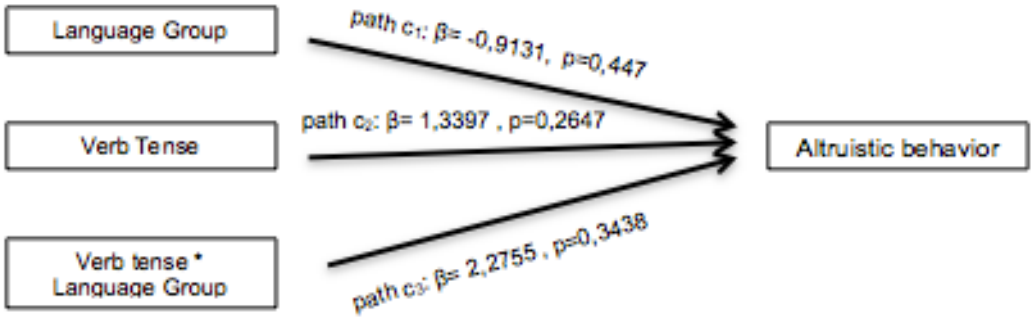


Figure 5: Coefficients and p-values for the moderation analysis of verb tense, language group and their joint interaction on altruistic behavior, covariates not included.

After inclusion of the covariates (age, gender and diploma) into the moderation analysis, no effect on the reported results is present. Results reveal a value of -0.7364 for the path between X and Y, this is, between language group and altruistic behavior, or path c (p=0,5274), a value of 1.8176 for path c_2 (p=0.123) and a value of 2.5897 for the interaction path (p=0.2679).

Now is proceeded with the same analysis but for the second dependent variable. The interaction effect in this case is not significant as well with a value of 0.6497 (path c_3, p= 0.172) and neither is the path between verb tense and altruistic likelihood with a value of 0.0069 (path c_2, p= 0.9767). A significant relationship between language and altruistic likelihood is found with a value of -0.567 and a p-value<0,05 (path c_1, p= 0.0177) (figure 6), this is also in line with previous findings (see experiment 1).

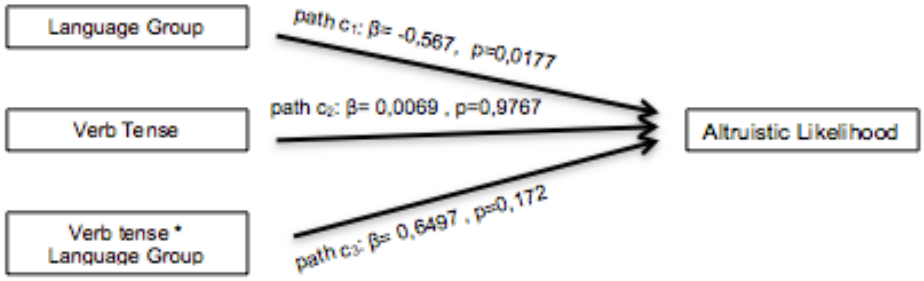


Figure 6: Coefficients and p-values for the moderation analysis of verb tense, language group and their joint interaction on altruistic likelihood, covariates not included.

It is still important to investigate if the inclusion of the control variables alters the interaction effect significantly. However the results show that after including these, not much change arises compared to the previous moderation results. The results show the following values; for path c_1 a value of -0.5580 (path between language group and altruistic likelihood, p= 0.0198) and a value of 0.035 for path c_2, or the pad between verb tense and altruistic likelihood (p=0,8889). The interaction effect has a value of 0.683 and is therefore again not significant (p=0.1526).

5 General Conclusion

After having obtained the results for this research, some peculiarities have come to surface. All of these will be discussed in consecutive order during the course of this chapter. Also will the limitations and shortcomings of this research be disclosed and will suggestions for further research be made.

The first and most important item to be discussed is to which extent the results meet the prospects. The results of each of the three experiments do not support the hypotheses that were presented during chapter 2. However this does not render this research obsolete. When looking further than the plain experimental setting as designed, some noteworthy relations became unveiled. One of these was the main effect of language group on people's likelihood to donate (experiment 1). This was surprising, as we did not find support for a main effect of language group on actual donating behavior. The results showed that participants in the English condition reported a higher likelihood to donate then those in the Dutch condition, however in reality both conditions donated similar amounts. This indicates that there is a discrepancy between how people assess their own behavior and how they really act in the English condition. This is a very important finding because it indicates that message language is a key factor, however some more research is needed on the why and how to close this existing gap between intention and behavior because the expected process, time preference, did not mediate the relationship. Steenburg (2013) uses the theory of planned behavior (TPB) to answer this question. He shows that the involvement of a person with the ad and a person's attitude towards donating, help determine one's propensity to donate and the amount of the donation. He reports the following results, "When messages indicate that others are supportive of the cause, donations increase when one is more involved with the ad and is generally agreeable to donating. But these messages have the opposite effect when one is not involved with the ad - donations decrease when the message indicates others support the cause. And when messages indicate that even a minimal donation is possible, the attitude driver has no effect on donation behavior. However, when involvement is low, one's age plays a role in driving individuals toward action, with older people more driven to give when exposed to supportive messages under low involvement conditions than younger groups" (Steenburg, p.1, 2013). He conducted his research in English, this is a strong FTR language, and for this language condition his results do indeed correspond with the findings in this research paper. Certainly for the low involvement condition, as was also shown in this research that people tend to become more altruistic as they grow older. But they do still not explain why there is no attitude-behavior gap for the Dutch condition and thus what mediates the relationship.

Secondly, as mentioned before is the importance of selecting an appropriate language when setting up fundraising messages supported. Most participants were Belgian Dutch-English bilinguals and the average highest likelihood to donate was found in case they were presented with the English condition. This supports the view that native language is not always the most evident advertising language and that English is more efficient when wanting to encourage likelihood to donate. However some prudence when interpreting the latter. This fundraising message was designed without specifying the goal and thus the reach of the campaign, meaning that people might have interpreted it therefore as a more global help-initiative when exposed to the English condition. Thus making it questionable if they would have indicated the same likelihood to donate when the campaign reach would have been bound to solely Belgium. Also, now was English used as a choice for the strong FTR (futured) language, it can be doubted if the same results would have occurred when another strong FTR language would have been used. This because English is perceived to be a meta-language, the language of the future and innovation (Puntoni et al., 2009). globally known and comprehended, and this might in fact contaminate the results. Besides of all this, does the larger likelihood to donate-results in the English condition support the “language as a driver of culture”-claim. This because this research made use of Belgian bilinguals that indicated different attitudes in both language conditions, however sharing the same culture and values on country-level.

Thirdly, no evidence so far was found for the effect of verb tense on altruistic behavior. Nor was there an effect of verb tense on likelihood to donate, which came a bit as a surprise as in the paper by Carrera et al. (2014) a clear link was established between verb tense and an action’s likeliness. Thus raising question marks by the fundamentals of the hypothesis. After careful re-examination did it become clear that might have been focused on the wrong grammatical category to encode time. Maybe it is not verb tense but rather verb aspect that has a decisive impact on people’s attitude and consequently behavior. In the literature study was mentioned that both present simple and present continuous have an imperfective aspect as they handle about actions that have not ended yet. People might therefore not perceive a psychological temporal distance between the simple present and present continuous because they have the same verb aspect but they might perceive it between two different verb aspects. This can explain why in the research of Carrera et al. (2014) a difference between the simple past (perfective aspect) and simple present (imperfective aspect) was found. This offers possibility to be further research because also Chen (2013) devotes the different behaviors across languages to a larger psychological distance in time encoding.

This research had as purpose to investigate the altruistic behavior of individual contributors by means of donating money. The general altruism test already revealed that amount donated was not an all-embracing measure for altruistic behavior. Thus still a large pool is to be researched, such as the donation of time and not solely donations made by individuals but also by groups, organizations and companies. All of this stressing the need for more marketing research in the message-based fundraising and donation market.

Appendices

Appendix 1: Output SPSS

DATA SCREENING

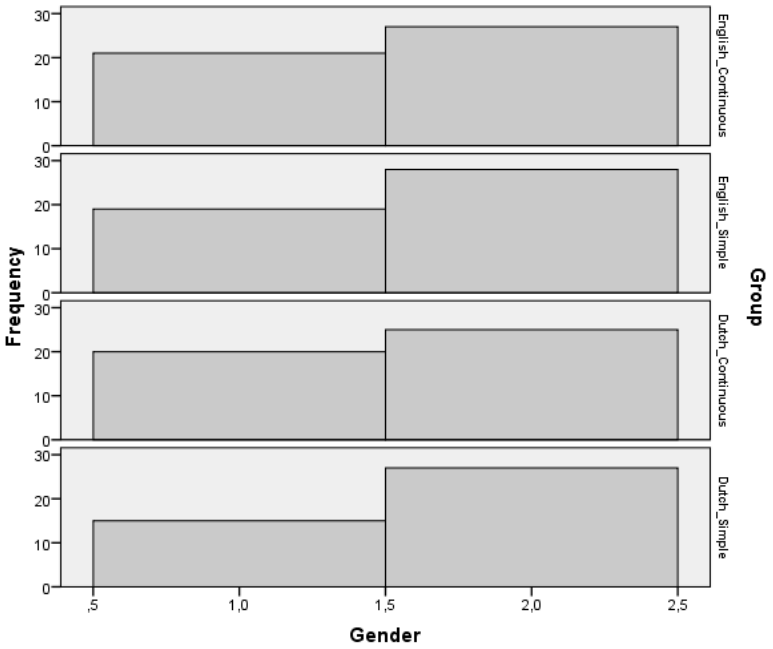
```
GET
  FILE='D:\Users\Qforce\Desktop\Michelle\thesis\Dataset.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.

DESCRIPTIVES VARIABLES=Age Diploma Gender
  /STATISTICS=MEAN STDDEV MIN MAX.
```

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	182	18	69	28,27	11,213
Diploma	182	1	5	3,23	1,082
Gender	182	1	2	1,59	,494
Valid N (listwise)	182				

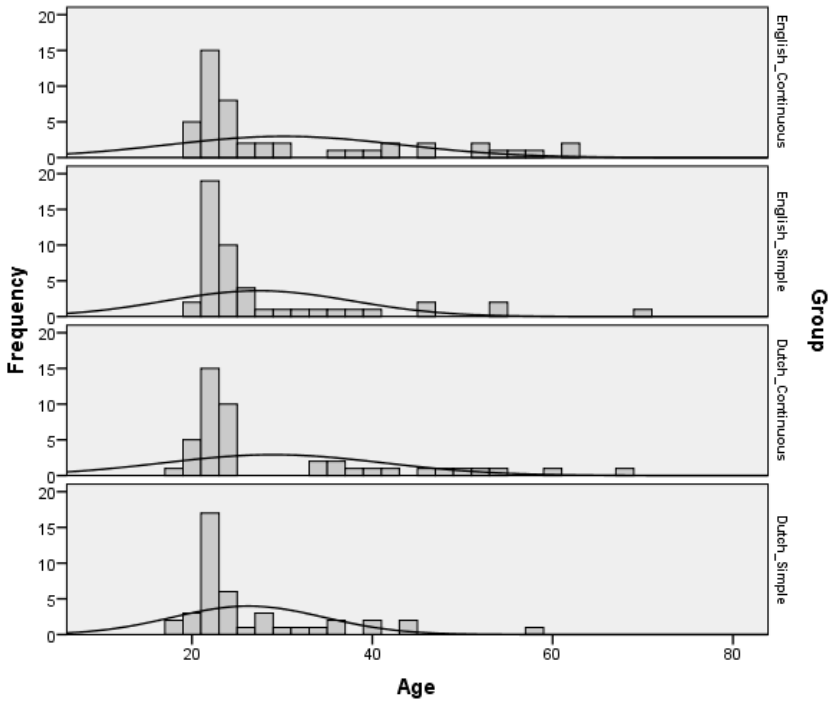
```
GRAPH
  /HISTOGRAM=Gender
  /PANEL ROWVAR=Group ROWOP=CROSS.
```

Histogram gender



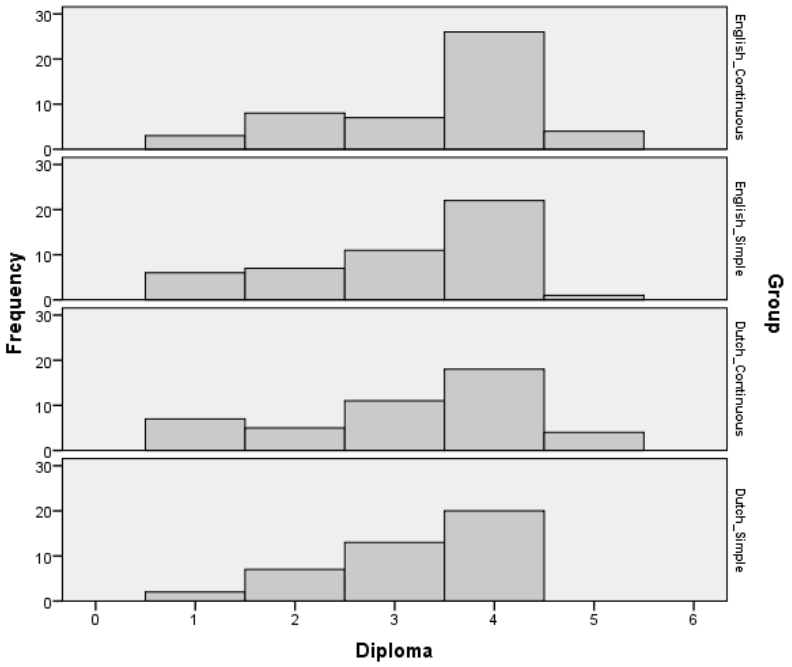

```
GRAPH
  /HISTOGRAM(NORMAL)=Age
  /PANEL ROWVAR=Group ROWOP=CROSS.
```

Histogram age




```
GRAPH
  /HISTOGRAM=Diploma
  /PANEL ROWVAR=Group ROWOP=CROSS.
```

Histogram Diploma




```
ONEWAY Age BY Group
  /MISSING ANALYSIS.
```

Oneway ANOVA: Age

ANOVA Age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	424,173	3	141,391	1,127	,340
Within Groups	22331,635	178	125,459		
Total	22755,808	181			

```
CROSSTABS
  /TABLES=Gender BY Group
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ
  /CELLS=COUNT
  /COUNT ROUND CELL.
```

Chi-square statistic: Gender

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender * Group	182	100,0%	0	0,0%	182	100,0%

Gender * Group Crosstabulation

Count

		Group				
		English_Continuous	English_Simple	Dutch_Continuous	Dutch_Simple	Total
Gender	Male	21	19	20	15	75
	Female	27	28	25	27	107
Total		48	47	45	42	182

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	,858[a]	3	,836
Likelihood Ratio	,864	3	,834
Linear-by-Linear Association	,350	1	,554
N of Valid Cases	182		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 17,31.

```
CROSSTABS
  /TABLES=Diploma BY Group
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ
  /CELLS=COUNT
  /COUNT ROUND CELL.
```

Chi-square statistic: Diploma

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Diploma * Group	182	100,0%	0	0,0%	182	100,0%

Diploma * Group Crosstabulation
Count

		Group			
		English_Continuous	English_Simple	Dutch_Continuous	Dutch_Simple
Diploma	High school	3	6	7	2
	Academic bachelor	8	7	5	7
	Professional bachelor	7	11	11	13
	Master degree	26	22	18	20
	Other	4	1	4	0
Total		48	47	45	42

Diploma * Group Crosstabulation
Count

		Total
Diploma	High school	18
	Academic bachelor	27
	Professional bachelor	42
	Master degree	86
	Other	9
Total		182

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13,256[a]	12	,351
Likelihood Ratio	15,343	12	,223
Linear-by-Linear Association	,667	1	,414
N of Valid Cases	182		

a. 8 cells (40,0%) have expected count less than 5. The minimum expected count is 2,08.

```
NONPAR CORR
  /VARIABLES=Donation SRACont
  /PRINT=SPEARMAN TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

Spearman correlation: Donation amount & SRA-scale

Correlations

			Amount donated	Total SRA score
Spearman's rho	Amount donated	Correlation Coefficient	1,000	,123
		Sig. (2-tailed)	.	,098
		N	182	182
	Total SRA score	Correlation Coefficient	,123	1,000
		Sig. (2-tailed)	,098	.
		N	182	182

```
NONPAR CORR
  /VARIABLES=SRACont Likeli
  /PRINT=SPEARMAN TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

Spearman correlation: Likelihood to donate & SRA-scale

Correlations

			Total SRA score	Likelihood to donate
Spearman's rho	Total SRA score	Correlation Coefficient	1,000	,153*
		Sig. (2-tailed)	.	,040
		N	182	182
	Likelihood to donate	Correlation Coefficient	,153*	1,000
		Sig. (2-tailed)	,040	.
		N	182	182

*. Correlation is significant at the 0.05 level (2-tailed).

EXPERIMENT 1

```
ONEWAY Donation BY Language
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

One-way ANOVA: Donation amount (Language)

Descriptives donation amount

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
English	95	13,768	7,8262	,8029	12,174	15,363
Dutch	87	12,838	8,3450	,8947	11,059	14,616
Total	182	13,324	8,0694	,5981	12,143	14,504

	Minimum	Maximum
English	,0	20,0
Dutch	,0	20,0

Total	,0	20,0

ANOVA amount donated

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39,318	1	39,318	,603	,439
Within Groups	11746,410	180	65,258		
Total	11785,728	181			

```
ONEWAY Likeli BY Language
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

Oneway ANOVA: likelihood to donate (language)

Descriptives likelihood to donate

					95% Confidence Interval for Mean	
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
English	95	3,58	1,717	,176	3,23	3,93
Dutch	87	3,01	1,451	,156	2,70	3,32
Total	182	3,31	1,616	,120	3,07	3,54

Descriptives likelihood to donate

	Minimum	Maximum
English	1	7
Dutch	1	7
Total	1	7

ANOVA likelihood to donate

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14,623	1	14,623	5,745	,018
Within Groups	458,146	180	2,545		
Total	472,769	181			

```
UNIANOVA Donation BY Language WITH Age Gender Diploma
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(0.05)
  /DESIGN=Age Gender Diploma Language.
```

ANCOVA (Gender, Diploma, Age): Donation amount (language)

Between-Subjects Factors

		Value Label	N
Language	1	English	95

	2	Dutch	87

Tests of Between-Subjects Effects
Dependent Variable: Amount donated

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	871,294[a]	4	217,823	3,532	,008
Intercept	1029,212	1	1029,212	16,691	,000
Age	550,560	1	550,560	8,928	,003
Gender	88,093	1	88,093	1,429	,234
Diploma	89,016	1	89,016	1,444	,231
Language	27,049	1	27,049	,439	,509
Error	10914,435	177	61,663		
Total	44094,190	182			
Corrected Total	11785,728	181			

a. R Squared = ,074 (Adjusted R Squared = ,053)

```
UNIANOVA Likeli BY Language WITH Age Gender Diploma
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(0.05)
  /DESIGN=Age Gender Diploma Language.
```

ANCOVA (Gender, Diploma, Age): Likelihood to donate

Between-Subjects Factors

		Value Label	N
Language	1	English	95
	2	Dutch	87

Tests of Between-Subjects Effects
Dependent Variable: Likelihood to donate

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22,286[a]	4	5,571	2,189	,072
Intercept	53,711	1	53,711	21,104	,000
Age	5,397	1	5,397	2,120	,147
Gender	,265	1	,265	,104	,747
Diploma	1,685	1	1,685	,662	,417
Language	14,077	1	14,077	5,531	,020
Error	450,484	177	2,545		
Total	2464,000	182			
Corrected Total	472,769	181			

a. R Squared = ,047 (Adjusted R Squared = ,026)

Mediation PROCESS: Time preference (M), Likelihood to donate

Run MATRIX procedure:

```
***************** PROCESS Procedure for SPSS Release 2.13.1 **************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2013). www.guilford.com/p/hayes3
**************************************************************************
Model = 4
    Y = Likeli
    X = Language
    M = Discount

Sample size
        182
**************************************************************************
Outcome: Discount

Model Summary
          R       R-sq        MSE          F        df1        df2          p
     ,0208      ,0004 145312,211      ,0781     1,0000   180,0000      ,7802

Model
             coeff         se          t          p       LLCI       ULCI
constant   151,8673    88,2534     1,7208      ,0870   -22,2772   326,0117
Language    15,8106    56,5673      ,2795      ,7802   -95,8098   127,4310
**************************************************************************
Outcome: Likeli

Model Summary
          R       R-sq        MSE          F        df1        df2          p
     ,1790      ,0320     2,5565     2,9632     2,0000   179,0000      ,0542

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,1680      ,3732    11,1681      ,0000     3,4315     4,9044
Discount     -,0001      ,0003     -,4546      ,6499     -,0008      ,0005
Language     -,5652      ,2373    -2,3816      ,0183    -1,0335     -,0969

****************** DIRECT AND INDIRECT EFFECTS *************************

Direct effect of X on Y
     Effect         SE          t          p       LLCI       ULCI
     -,5652      ,2373    -2,3816      ,0183    -1,0335     -,0969

Indirect effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
Discount     -,0022      ,0256     -,0308      ,1161

****************** ANALYSIS NOTES AND WARNINGS *************************

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
     5000
Level of confidence for all confidence intervals in output:
    95,00
```

------ END MATRIX -----

Mediation PROCESS: Time preference (M), Likelihood to donate, covariates

Run MATRIX procedure:

********** PROCESS Procedure for SPSS Release 2.13.1 **********

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2013). www.guilford.com/p/hayes3

****
Model = 4
Y = Likeli
X = Language
M = Discount

Statistical Controls:
CONTROL= Gender Age Diploma

Sample size
182
****
Outcome: Discount

Model Summary

R	R-sq	MSE	F	df1	df2	p
,0977	,0095	146427,981	,4265	4,0000	177,0000	,7894

Model

	coeff	se	t	p	LLCI	ULCI
constant	291,9830	181,6083	1,6078	,1097	-66,4135	650,3795
Language	11,0335	56,9109	,1939	,8465	-101,2777	123,3448
Gender	3,3849	58,1189	,0582	,9536	-111,3103	118,0801
Age	-2,8539	2,5688	-1,1110	,2681	-7,9234	2,2155
Diploma	-17,9059	26,3980	-,6783	,4985	-70,0013	34,1895

****
Outcome: Likeli

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2189	,0479	2,5575	1,7715	5,0000	176,0000	,1210

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,8911	,7645	5,0897	,0000	2,3823	5,3998
Discount	-,0001	,0003	-,3790	,7051	-,0007	,0005
Language	-,5567	,2379	-2,3404	,0204	-1,0261	-,0873
Gender	,0786	,2429	,3235	,7467	-,4008	,5579
Age	,0153	,0108	1,4161	,1585	-,0060	,0365
Diploma	-,0917	,1105	-,8300	,4077	-,3097	,1263

********** DIRECT AND INDIRECT EFFECTS **********

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI

-,5567 ,2379 -2,3404 ,0204 -1,0261 -,0873

Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
Discount	-,0013	,0304	-,0315	,1456

********** ANALYSIS NOTES AND WARNINGS **********

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
5000

Level of confidence for all confidence intervals in output:
95,00

------ END MATRIX -----

EXPERIMENT 2

```
ONEWAY Donation BY Tense
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

Oneway ANOVA: Donation amount (Verb Tense)

Descriptives amount donated

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Continuous	93	12,663	8,3437	,8652	10,945	14,382
Simple	89	14,013	7,7592	,8225	12,379	15,648
Total	182	13,324	8,0694	,5981	12,143	14,504

Descriptives amount donated

	Minimum	Maximum
Continuous	,0	20,0
Simple	,0	20,0
Total	,0	20,0

ANOVA amount donated

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	82,889	1	82,889	1,275	,260
Within Groups	11702,840	180	65,016		
Total	11785,728	181			

```
ONEWAY Likeli BY Tense
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

Oneway ANOVA: likelihood to donate (verb tense)

Descriptives likelihood to donate

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Continuous	93	3,30	1,647	,171	2,96	3,64
Simple	89	3,31	1,593	,169	2,98	3,65
Total	182	3,31	1,616	,120	3,07	3,54

Descriptives likelihood to donate

	Minimum	Maximum
Continuous	1	7
Simple	1	7
Total	1	7

ANOVA likelihood to donate

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,008	1	,008	,003	,955
Within Groups	472,761	180	2,626		
Total	472,769	181			

```
UNIANOVA Donation BY Tense WITH Age Gender Diploma
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(0.05)
  /DESIGN=Age Gender Diploma Tense.
```

ANCOVA (Gender, diploma, age): Amount donated (verb tense)

Between-Subjects Factors

		Value Label	N
Tense	1	Continuous	93
	2	Simple	89

Tests of Between-Subjects Effects
Dependent Variable: Amount donated

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	994,713[a]	4	248,678	4,079	,003
Intercept	963,608	1	963,608	15,806	,000
Age	630,720	1	630,720	10,345	,002
Gender	99,326	1	99,326	1,629	,203
Diploma	69,512	1	69,512	1,140	,287
Tense	150,469	1	150,469	2,468	,118
Error	10791,015	177	60,966		
Total	44094,190	182			

Corrected Total	11785,728	181			

a. R Squared = ,084 (Adjusted R Squared = ,064)

```
UNIANOVA Likeli BY Tense WITH Age Gender Diploma
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(0.05)
  /DESIGN=Age Gender Diploma Tense.
```

ANCOVA (Gender, Diploma, Age): Likelihood to donate

Between-Subjects Factors

		Value Label	N
Tense	1	Continuous	93
	2	Simple	89

Tests of Between-Subjects Effects
Dependent Variable: Likelihood to donate

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8,308[a]	4	2,077	,792	,532
Intercept	51,518	1	51,518	19,633	,000
Age	6,470	1	6,470	2,466	,118
Gender	,209	1	,209	,079	,778
Diploma	1,258	1	1,258	,480	,490
Tense	,100	1	,100	,038	,845
Error	464,461	177	2,624		
Total	2464,000	182			
Corrected Total	472,769	181			

a. R Squared = ,018 (Adjusted R Squared = -,005)

EXPERIMENT 3

Moderation: Donation Amount

Run MATRIX procedure:

```
**************** PROCESS Procedure for SPSS Release 2.13.1 **************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2013). www.guilford.com/p/hayes
**************************************************************************
Model = 1
    Y = Donation
    X = Language
    M = Tense

Sample size
       182
**************************************************************************
Outcome: Donation
```

```
Model Summary
        R       R-sq        MSE          F        df1        df2          p
     ,1234      ,0152    65,2030      ,9182     3,0000   178,0000      ,4333

Model
            coeff         se          t          p       LLCI       ULCI
constant    13,3304      ,5986     22,2697      ,0000     12,1492    14,5117
Tense        1,3397     1,1975      1,1188      ,2647     -1,0233     3,7028
Language     -,9132     1,1983      -,7621      ,4470     -3,2780     1,4515
int_1        2,2755     2,3973      ,9492       ,3438     -2,4553     7,0063

Interactions:
 int_1    Language    X     Tense

R-square increase due to interaction(s):
        R2-chng          F        df1        df2          p
int_1      ,0050      ,9009     1,0000   178,0000      ,3438
******************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      Tense     Effect         se          t          p       LLCI       ULCI
     -,4890    -2,0260     1,6755    -1,2092      ,2282    -5,3324     1,2805
      ,5110      ,2495     1,7146      ,1455      ,8845    -3,1340     3,6330

********************* ANALYSIS NOTES AND WARNINGS *************************

Level of confidence for all confidence intervals in output:
   95,00

NOTE: The following variables were mean centered prior to analysis:
 Language Tense

------ END MATRIX -----
```

Moderation: Likelihood to donate

```
Run MATRIX procedure:
**************** PROCESS Procedure for SPSS Release 2.13.1 **************

         Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2013). www.guilford.com/p/hayes
**************************************************************************
Model = 1
    Y = Likeli
    X = Language
    M = Tense

Sample size
        182
**************************************************************************
Outcome: Likeli

Model Summary
        R       R-sq        MSE          F        df1        df2          p
     ,2026      ,0411     2,5469     2,5407     3,0000   178,0000      ,0580

Model
            coeff         se          t          p       LLCI       ULCI
```

```
constant     3,3096      ,1183     27,9753      ,0000     3,0762     3,5431
Tense         ,0069      ,2367      ,0292      ,9767     -,4601      ,4740
Language     -,5670      ,2368    -2,3941      ,0177    -1,0344     -,0997
int_1         ,6497      ,4738     1,3712      ,1720     -,2853     1,5847
Interactions:
 int_1    Language    X     Tense

R-square increase due to interaction(s):
        R2-chng          F        df1        df2          p
int_1      ,0101     1,8801     1,0000   178,0000      ,1720

*************************************************************************
Conditional effect of X on Y at values of the moderator(s):
      Tense     Effect         se          t          p       LLCI       ULCI
     -,4890     -,8847      ,3311     -2,6717      ,0082     -1,5382     -,2312
      ,5110     -,2351      ,3389     -,6936       ,4888     -,9038      ,4337

********************* ANALYSIS NOTES AND WARNINGS ************************

Level of confidence for all confidence intervals in output:
    95,00

NOTE: The following variables were mean centered prior to analysis:
 Language Tense

------ END MATRIX -----
```

Moderation: Amount donated (covariates)

```
Run MATRIX procedure:
*************** PROCESS Procedure for SPSS Release 2.13.1 **************

         Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2013). www.guilford.com/p/hayes3
**************************************************************************
Model = 1
    Y = Donation
    X = Language
    M = Tense

Statistical Controls:
CONTROL= Gender   Age      Diploma

Sample size
        182
**************************************************************************
Outcome: Donation

Model Summary
         R       R-sq        MSE          F        df1        df2          p
      ,3047      ,0929    61,0928     2,9858     6,0000   175,0000      ,0084

Model
             coeff         se          t          p       LLCI       ULCI
constant    13,1310     3,2376     4,0558      ,0001     6,7413    19,5207
Tense        1,8176     1,1727     1,5499      ,1230     -,4969     4,1321
Language     -,7364     1,1627     -,6333      ,5274    -3,0312     1,5585
```

```
int_1        2,5897     2,3302     1,1114      ,2679    -2,0091     7,1886
Gender      -1,5443     1,1888    -1,2991      ,1956    -3,8905      ,8018
Age          ,1672      ,0529     3,1603      ,0019      ,0628      ,2715
Diploma      -,6427     ,5426    -1,1843      ,2379    -1,7136      ,4283
Interactions:
 int_1    Language    X     Tense

R-square increase due to interaction(s):
        R2-chng          F        df1        df2          p
int_1      ,0064     1,2352     1,0000   175,0000      ,2679
*************************************************************************
Conditional effect of X on Y at values of the moderator(s):
      Tense     Effect         se          t          p       LLCI       ULCI
     -,4890    -2,0028     1,6298    -1,2288      ,2208    -5,2194     1,2139
      ,5110      ,5870     1,6624      ,3531      ,7245    -2,6939     3,8678

********************* ANALYSIS NOTES AND WARNINGS *************************

Level of confidence for all confidence intervals in output:
   95,00

NOTE: The following variables were mean centered prior to analysis:
 Language Tense

------ END MATRIX -----
```

Moderation: Likelihood to donate (covariates)

```
Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Release 2.13.1 **************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
   Documentation available in Hayes (2013). www.guilford.com/p/hayes3
*************************************************************************
Model = 1
   Y = Likeli
   X = Language
   M = Tense

Statistical Controls:
CONTROL= Gender   Age      Diploma

Sample size
       182
*************************************************************************
Outcome: Likeli

Model Summary
         R       R-sq        MSE          F        df1        df2          p
     ,2416      ,0584     2,5439     1,8077     6,0000   175,0000      ,1001

Model
             coeff         se          t          p       LLCI       ULCI
constant     3,0925      ,6607     4,6810      ,0000     1,7887     4,3964
Tense         ,0335      ,2393      ,1398      ,8889     -,4388      ,5058
Language     -,5580      ,2373    -2,3518      ,0198    -1,0263     -,0897
int_1         ,6832      ,4755     1,4368      ,1526     -,2552     1,6216
```

```
Gender       ,0664      ,2426      ,2736      ,7847     -,4124      ,5451
Age          ,0156      ,0108     1,4463      ,1499     -,0057      ,0369
Diploma      -,1022     ,1107      -,9226     ,3575     -,3207      ,1164

Interactions:
 int_1    Language    X     Tense

R-square increase due to interaction(s):
        R2-chng         F        df1        df2         p
int_1      ,0111     2,0644     1,0000   175,0000      ,1526
******************************************************************************
Conditional effect of X on Y at values of the moderator(s):
      Tense     Effect        se         t         p       LLCI       ULCI
     -,4890     -,8921      ,3326    -2,6823     ,0080    -1,5485     -,2357
      ,5110     -,2089      ,3392     -,6159     ,5388     -,8784      ,4606

********************* ANALYSIS NOTES AND WARNINGS ************************

Level of confidence for all confidence intervals in output:
    95,00

NOTE: The following variables were mean centered prior to analysis:
 Language Tense

------ END MATRIX -----
```

Appendix 2: Survey (English - present continuous)

Consent form

Study title: Inter-linguistic behavior

Protocol director: Michelle Declercq

DESCRIPTION: This study has the purpose to identify and understand which advertising campaigns are most effective across different languages. The time needed to complete the entire study will be about 10 minutes. This study research takes place as part of a master thesis in obtaining the degree of Business Engineer, specialization Marketing for the academic year of 2014-2015, KU Leuven.

PARTICIPANTS: This study addresses participants who consider themselves both fluent in English and Dutch, this is, written and spoken language. The questionnaire targets adults, this is, persons older than the age of 18. Please ONLY participate in the questionnaire if you have a good proficiency in both English and Dutch and regularly use either of these languages in daily communication.

RISKS AND BENEFITS: No risk is associated with this study. The expected benefits from this study are the opportunity to contribute to the gain in greater knowledge of and insight into inter-linguistic differences and behavior. However

we cannot and do not guarantee or promise that you will receive any benefit from this study. Your decision whether or not to participate in this study will not affect your ability to participate in future research related to the Research Center For Marketing and Consumer Science of KU Leuven

TIME INVOLVEMENT: The time needed to complete this study is approximately 10 minutes. PAYMENT: To thank the participants for their time invested, this study will make use of a lottery setting, offering each participant the possibility of winning € 20. After the necessary quota of questionnaires has been reached, one of the participants will be drawn by random pick and receive the €20 by bank transfer.

SUBJECT'S RIGHTS: If you have read this form and have decided to participate in this study, please understand your participation is voluntary and you have the right to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published and written data resulting from the study.

CONTACT INFORMATION: The protocol director as mentioned above can be contacted with any questions, concerns or complaints about this research study, its procedure and/or the risks and benefits. Please send an e-mail to the following address: michelle.declercq@student.kuleuven.be

Q1: If you have read the information presented in the consent form and would like to participate in the study, please click “I agree". Alternatively, if you do not want to complete the study, please click “I do not agree” and you will be redirected to the end of this study.

- ❍ I agree (1)
- ❍ I do not agree (2)

Q2: This is a brief survey and it is important that you are able to complete this session in a single sitting without distraction. This session will take approximately 10 minutes and consists of several separate sections. If now is not a good time to complete the session in a single sitting without distraction, please come back later.Please read the instructions and questions carefully, and answer as best as you can, even if some of the questions do not sound natural to you. Thank you!

Q3: We will now ask you to fill in some grammar questions in both Dutch and English. No problem should arise when answering these questions if you are sufficiently fluent in either language.

GRENG-1 He was _____ television yesterday evening.
- looking at (1)
- watching (2)
- looking to (3)

GRENG-2 I cannot wear this T-shirt anymore because it _____ in the dryer.
- shrank (1)
- shrinked (2)
- has shrunken (3)

GRENG-3 She has been smoking _____ she started the 5th grade.
- when (1)
- since (2)
- by the time (3)

GRENG-4 He was reading a book written _____ Mark Twain
- by (1)
- from (2)
- of (3)

GRDU-1 Hij _____ de nieuwe woning
- betreed (1)
- betreet (2)
- betreedt (3)

GRDU-2 _____ boek ligt op tafel.
- het (1)
- de (2)
- onze (3)

GRDU-3 Wat is jouw mening ____ de laatste Harry Potter film?
- over (1)
- van (2)
- op (3)

GRDU-4 Morgen keren wij samen terug _____ huis.
- naar (1)
- van (2)
- onder (3)

Q4: Once you finish this survey, you automatically enter a lottery and are eligible for winning 20 Euros. In case you win, you have two options: 1) You can choose to receive the full amount of 20 Euros to your bank account. 2) You can donate parts of the money or the full amount to a charity of your choice. Once you let us

know the charity of your choice, I will donate the amount to them in your name. In case you did not donate the entire amount, the rest will still be transferred to you.

Q5: Please fill in the campaign message that is readable on the image.

Q6: Please indicate below how much of the money you would like to donate in case you win (please note that this is a final choice and can't be changed after reception of winner's notification):
_____ Please indicate (1)

Q7: After seeing this campaign message, what is the chance that you will make a donation in addition to the potential donation in case you win?

	None (1)	Very unlikely (2)	Unlikely (3)	Undecided (4)	Likely (5)	Very likely (6)	Certainly (7)
Please indicate (1)	❍	❍	❍	❍	❍	❍	❍

Q8: Please state the letter(s) you see? Please enter in the format “letter1,letter2” separated by a comma.

Q9: Imagine you now win €100 with the lottery instead of €20. However, the lottery commission is giving you the option of cashing-in on the lottery gains in six months from now instead of immediately. Please indicate now, which amount the lottery commission would have to give you in 6 months for you to wait for this time (instead of €100).

Q10: Now a series of statements will follow. Using the following scale, please select the category that conforms to the frequency with which you have carried out the following acts.

	Never (1)	Once (2)	More than once (3)	Often (4)	Very often (5)
I have helped push a stranger's car that was broken down or out of gas. (1)	❍	❍	❍	❍	❍
I have given directions to a stranger. (2)	❍	❍	❍	❍	❍
I have made change for a stranger. (3)	❍	❍	❍	❍	❍
I have given money to a charity. (4)	❍	❍	❍	❍	❍
I have given money to a stranger who needed it (or asked me for it). (5)	❍	❍	❍	❍	❍
I have donated goods or clothes to a charity. (6)	❍	❍	❍	❍	❍
I have done volunteer work for a charity. (7)	❍	❍	❍	❍	❍
I have donated blood. (8)	❍	❍	❍	❍	❍
I have helped carry a stranger's belongings (books, parcels, etc). (9)	❍	❍	❍	❍	❍
I have delayed an elevator and held the door open for a stranger. (10)	❍	❍	❍	❍	❍
I have allowed someone to go ahead of me in a lineup (in the supermarket, at a copy machine, at a fast-food restaurant). (11)	❍	❍	❍	❍	❍
I have given a stranger a lift in my car. (12)	❍	❍	❍	❍	❍
I have pointed out a clerk's error (in a bank, at the supermarket) in undercharging me for an item. (13)	❍	❍	❍	❍	❍
I have let a neighbor whom I didn't know too well borrow an item of some value to me (eg, a dish, tools, etc). (14)	❍	❍	❍	❍	❍
I have bought 'charity' holiday cards deliberately because I knew it was a good cause. (15)	❍	❍	❍	❍	❍
I have helped a classmate who I did not know that well with an assignment when my knowledge was greater than his or hers. (16)	❍	❍	❍	❍	❍
I have, before being asked, voluntarily looked after a neighbor's pets or children without being paid for it. (17)	❍	❍	❍	❍	❍
I have offered to help a handicapped or elderly stranger across a street. (18)	❍	❍	❍	❍	❍
I have offered my seat on a bus or train to a stranger who was standing. (19)	❍	❍	❍	❍	❍
I have helped an acquaintance to move households. (20)	❍	❍	❍	❍	❍

Q11: Do you speak, did you learn or are you learning any other language as Dutch and English?

- ❍ Yes (1)
- ❍ No (2)

If No Is Selected, Then Skip To What is your gender

Q12: What is/are these language(s)? If you speak more than 4 additional languages, besides English and Dutch, then please only fill in the 4 in which you are most fluent. Please start at the top and work yourself down the list.

Language 1 (1)
Language 2 (2)
Language 3 (3)
Language 4 (4)

Q13: Now, for each of the languages you gave up in the previous question, indicate your fluency in speaking and listening on a scale from 1 to 4.

1 = basic skills
2 = Limited professional skills
3= Full professional skills
4 = As a native speaker

	${q://QID36/ChoiceTextEntryValue/1}				${q://QID36/ChoiceTextEntryValue/2}				${q://QID36/ChoiceTextEntryValue/3}				${q://QID36/ChoiceTextEntryValue/4}			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Fluency SPEAKING (1)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Fluency LISTENING (2)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Q14: What is your gender

- ❍ Male (1)
- ❍ Female (2)

Q15: What is your age?

Q16: What is your highest obtained diploma or diploma you will obtain at the end of your current studies?

- ❍ high school (1)
- ❍ Academic bachelor (2)
- ❍ Professional bachelor (3)
- ❍ Master degree (4)
- ❍ Other (5) _____

Q17: Lastly we will need your contact information in case you win the lottery. This data will only be used for the purpose of contacting you and only if you win. The data will at no point be linked to the rest of the survey with the exception of the amount you want to donate) and will be deleted once the winner is contacted.

- ❍ I want to share my information (1)
- ❍ I would rather stay anonymous (2)

If I would rather stay anonymous Is Selected, Then Skip To End of Block

Q18: Please fill in the following boxes.

First name (1)
Last name (2)
e-mail address (3)
Zip code (4)

Q19: In your honest opinion, should we use your data in our analysis of this study? Please be honest. In case you provided us with your contact details, will you enter the lottery, independent of your answer.

- ❍ Yes (1)
- ❍ No (2)

Q20: Was anything unclear or confusing about this study? Do you have any comments?

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