A Thesis

entitled

Understanding Humor, Expressions, Profanity, and Cartoons in a Bilingual and Bi-Cultural Context.

by

Nada M. Salem

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Master of English Degree, concentration in English as a Second Language

_________________________________________
Dr. Douglas W. Coleman, Committee Chair

_________________________________________
Dr. Samir Abu-Absi, Committee Member

_________________________________________
Dr. Gaby Semaan, Committee Member

_________________________________________
Dr. Amanda Bryant-Friedrich, Dean
College of Graduate Studies

The University of Toledo

May 2017
Copyright 2017, Nada Mounif Salem

This document is copyrighted material. Under copyright law, no parts of this document may be reproduced without the expressed permission of the author.
An Abstract of

Understanding Humor, Expressions, Profanity, and Cartoons in a Bilingual and Bi-Cultural Context.

by

Nada M. Salem

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Master’s in English Degree in ESL

The University of Toledo
April, 2017

This study examines whether different personal attributes could affect our understanding and interpretation of concepts that are foreign to us due to linguistic or cultural reasons. The attributes in question in this research are religion, gender, educational level, and native language of the subjects. A seven-question survey is used to inquire about these features, and based on the answers, a pool of participants is randomly selected. The core of the study consists of a questionnaire based on four sections. The first contains expressions pertaining to the Arab culture, the second has expressions that reflect American culture. The third and the fourth sections comprise respectively profanity and vulgarity expressions and cartoons all familiar to American culture. The sample I select for testing represents the different attributes mentioned above and spreads across three groups: native English speakers, native Arabic speakers, and non-native English or Arabic speakers (like Latinos, Indians and Asians). This research is conducted partly at the University of Toledo with participants who work or study there, and the other part is within the Toledo area, with
participants who are friends and acquaintances from the Toledo Arab community. The data I collect is tested statistically to find out if there is any correlation or difference between the properties of my participants with the answers they choose on their questionnaires. Finding whether there is a correlation or not or a difference or not aids in finding out if the participants’ attributes had altered their interpretation and understanding of each section. The statistical results showed that most of these attributes had no correlation and showed no difference by the participants’ responses. The only two attributes that showed some correlation or difference were educational level and native language. I hope that my findings can be helpful to future research aimed for the betterment of second language acquisition strategies of instruction by showing what attributes should be focused on in making those strategies more effective and practical. My suggestion for future research is to study a much larger sample and look for interactions among variables specific to the sample.
Two years ago, when I decided to go back to school to pursue my Master’s degree, I knew I couldn’t have done it without the love, support and encouragement of my beloved husband Nadeem, and my three children that I adore Adam, Samantha, and Noah. Therefore, I dedicate this thesis paper to them with all my love and affection.
Acknowledgements

I want to thank my Principal investigator, and advisor, Dr. Douglas W. Coleman, and my committee members Dr. Gaby Semaan and Dr. Samir Abu-Absi for guiding me through this journey and helping me present a complete product under their supervision.
Table of Contents

Abstract iii
Acknowledgements vi
Table of Contents vii

List of Tables ix
List of Figures x
List of Abbreviations xi

I. Chapter 1
   A. Introduction 1
      a. Review of Literature 1
      b. Research Question 17

II. Chapter 2
   A. Context and Participants 18
   B. Method and Instrument 19
      a. Section one 21
      b. Section two 23
      c. Section three 25
      d. Section Four 27
   C. Hypothesis 45

III. Chapter 3
   A. Procedure 47
B. Interpretation and significance of results 63
   a. Implications 66
   b. suggestion for future research 67
C. Conclusion 68
References 70
Appendices
A. Email used to recruit the participants 72
B. Survey used for the research study 74
C. Questionnaire used for the research study 75
D. Explanation of the expressions used in sections one, 91
two, and three of the questionnaire
E. Consent form 95
F. Excel sheet representing all the participants, their 97
   attributes, and their answers to the questionnaire.
List of Tables

Table 1 Number of participants by gender. .................................................................49
Table 2 Number of participants by religion. .................................................................49
Table 3 Number of participants by native language and educational level. .............50
Table 4 L1, L2, L3, and L4 of participants. .................................................................51
Table 5 Display of sample across the four attributes being tested (gender, religion, educational level and native language) .................................................................52
List of Figures

Figure 1  Dialogue between Jenny and Emily (Holtgraves, 2007, p. 600). ..........................7
Figure 2  Dialogue between Oscar and Felix (The Odd Couple, 1968) cited by Coleman (2012, p. 1). ..........................13
Figure 3  Replica of the survey used in the study. .........................................................20
Figure 4  Excerpt of section 1 in the questionnaire. ......................................................22
Figure 5  Excerpt of section 2 in the questionnaire. ......................................................24
Figure 6  Excerpt of section 3 in the questionnaire. ......................................................26
List of Abbreviations

A..............................Native Arabic speakers.
Ba..............................Bachelor’s degree.
C..............................Christian.
E..............................Native English speaker.
EFL..............................English as a foreign language.
F..............................Female.
HS..............................High school education.
HL..............................Human Linguistics.
HSL..............................Hard-science Linguistics.
J..............................Jewish.
M..............................Muslim.
M..............................Male.
Ma..............................Master’s degree.
O..............................Other (non-native English and non-native Arabic speakers).
PhD..............................Doctorate degree.
RWK..............................Real-world knowledge.
SDRT..............................Segmented discourse representation theory.
SLA..............................Second language acquisition.
TIA..............................Toledo Islamic Academy.
WA..............................Word association.
Chapter One

Introduction

At home, with my family we’ve always had some inside jokes that others would not understand. Growing up in Beirut, the capital of Lebanon, we use expressions that someone from the North or the South of Lebanon may not get. As a Lebanese I am confident that I would interpret a joke, or a caricature differently than a Syrian, an Iraqi, or an Egyptian. As an Arab I am sure that I would identify with certain situations, or interpret concepts or jokes or profanity words differently than a Westerner. This research focuses on how real-world factors that surround and define people can affect how they understand each other in a given conversation. These real-world factors could be the context in which the conversation is taking place, it could also be the people talking, their beliefs, culture, education, perceptions and life experiences. Many linguists have discussed this matter, each from their own perspective and adding their own analysis to how an individual takes in “linguistic input” (Irmer, 2013) and how they process that input and then project it out to the world through their behavior or responses.

Review of literature

In this primary step of my research It seemed indispensable to investigate more into how a person processes information initially so they can understand and interpret it the way they do. Irmer’s (2013) study provides a viewpoint on this process. Irmer (2013, p.29) in his article states that:” Utterances do almost always convey more than is explicitly said.” Therefore, according to Irmer (2013), to comprehend linguistic input the hearer needs to supplement their deductions specifically, conversational implicatures, to
be able to connect those utterances with one another relying on rhetorical relations that may not have sufficient details, through the process of pragmatic inference. Irmer (2013, p. 30) introduces two types of implicatures: the I-implicature where the speaker gives minimal linguistic input expecting the hearer to make stereotypical connections correlating the utterances together to reach a contextual link. D-implicature, as Asher (2013, p. 31) explains it, is “the process of inferring discourse relations” to construct a coherent make-up. Irmer (2013, p. 29) suggests two theories in constructing implicatures, SDRT, the segmented discourse representation theory (Asher and Lascarides, 2003) and the Frame Net (cognitive network of stereotypical situations) (Baker et al. 1998). So the hearer, according to Irmer, listens to a discourse and creates semantic representations that are open to be specified by contextual knowledge to reach the full propositional sentence meaning. When faced with semantic under-specifications, the hearer bridges that input with their general encyclopedic knowledge rather than their lexical knowledge to reach a coherent discourse, Irmer (2013, p. 46) calls this process” bridging inferences.” SDRT, can help represent the discourse structures through “information packaging” and “glue logic” which according to Irmer (2013, p. 32) fuels the reasoning behind the hearer’s understanding. Frame Net, on the other hand, views the world knowledge as organized in frames that give clues to the hearer to identify the hinted discourse relations. Therefore, according to Irmer (2013, p. 45) the hearer will infer from input either by default values (general encyclopedic knowledge) or relying on any following input that might occur in the dialogue, but if that doesn’t happen then the hearer will have to bridge inferences through SDRT and Frame Net information to understand the utterances.
However, the idea of "encyclopedic knowledge" being put to use to understand utterances is advocated by the logical-domain linguists who may fail to consider the importance of context in understanding utterances. Consider these two situations:

A and B are outside doing yard work on a hot day. A says "Oh, wow, I am dripping!"
A and B are sitting outside eating ice cream cones on a hot day. A says, "Oh, wow, I am dripping!"

How do we know that A is referring to her perspiration in the first example, and to the melting ice cream in the second? If we hold the domain-confused view that lies behind the "encyclopedic view of knowledge," that is, knowledge as a huge store of statements like what's in an encyclopedia, then how does the brain even know where to "look up" the relevant information? Does it "read" everything about hot days, yard work, things that drip, etc. in the one case? If so, how does it collate those statements to come up with the right interpretation?

By highlighting his linguistic input Irmer (2013) seems to focus more on the non-real world concepts like words and grammar that belong to the logical domain (Coleman, 2012, 2013) and that could create domain confusion (Coleman, 2012, 2013). In contrast, the real-world environment that reflects non-linguistic input or context, (Coleman, 2012, 2013) reflects more the surrounding events and the speakers’ perception of those surrounding events that Yngve (2006) calls “physical domain” and says that this real-world environment consists of “people, objects, and energy flow among those people and objects.”

Moving along the same line of investigation, Coleman (1994) bases his research on the general “real world knowledge in the interpretation of numerous types of definite
expressions” (Grosz & Sidner, 1986:186) and the “inherent relationality of lexical items” (Coleman, 1991, 1994). Coleman, aims to prove that general real world knowledge (RWK) is not needed to interpret definite expressions. His subjects were 34 undergraduates and 3 graduates in 2 sections of an introduction to Linguistics course at the University of Toledo. The instrument of the study consisted of 2 questionnaire forms each containing 10 mini dialogues and a “who/what” question for every dialogue that the participants were supposed to answer. Form N had “nonsense words” and form R had “real words”. Students were asked not to make “wild guesses” and to answer with few words, they were also allowed to answer, “I don’t know” if need be. According to Coleman (1994), although general RWK exists it is not necessary in order to make associations to comprehend utterances; inherent relationality, on the other hand is more reliable for associative interpretation. General RWK relies on the person’s experience that affects comprehension by association; inherent relationality, in his study, helped participants construct a relationship between one word and the other, like connecting “klobs” to “box”. With the general RWK, the box would also need to be connected to the idea of one purchasing an item or maybe receiving a UPS package. General RWK is not needed to connect “klobs” to “box”, because by “inherent relationality” the “klobs” must have been inside the “box” since a box is usually a container that has something in it. Form N had similar examples of nonsense words, and students made guesses in their responses. Clearly these answers were in relation to the word they can relate to the best like “box” in this example rather than the nonsense word “klobs”. Coleman (1994) concludes stating that “inherent relationality thus presents a solution to the intractable
problems of identifying relevant RWK and then accessing it for the interpretation of more than one type of definite expressions.”

Roux (2013), looked into this concept from a different angle. He wanted to understand the relationship between lexical semantics (Roux, 2013) which are the lexical structures of a language, and mental lexicon (Aitchison, Lewis, 1995) which is how words are processed by the human mind. In his article, Roux highlights the “mental links” that occur when we learn a new vocabulary and how phonological similarities could affect that mental link. He also cites Carter (1998, p. 81) who asserts that words are correlated, so to understand a word in our mental lexicon one needs “associative, stylistic, cultural and idiomatic meanings of that word”. He argues that the mental lexicon of the hearer focuses on contextual links, and personal interpersonal foundations that the brain builds on as the dialogue progresses. In his study, Roux examines the relation between word association (WA) and lexical development in native and Japanese English speakers using WA test to examine what occurs in the mind during WA, using both the conventional classification methodology of word association and the one introduced by Fitzpatrick (2007). The latter classifies the association responses as meaning based, position based, form based, and erratic.

Roux’s (2013) study examined 9 native English speakers (3 females, and 6 males) and 9 Japanese English L2 speakers (5 females, and 4 males). Using 8 common cue words delivered orally, participants wrote an association link immediately after the delivery of the cue words, which represents their pure lexical association. Then a second time, the subjects revisited the link and added more information to complete the association response. Roux (2013, p. 88) says that associative links are important in how
we classify words in our minds, but this classification could change according to the person’s idiosyncratic, contextual, sociolinguistic, and psycholinguistic domain of mental lexicon” (Roux, 2013). In other words, the participants made their associations based on a logical connection with the cue words thus forming idiosyncratic links, and that could change from one person to another. Roux concludes through his study that in language instruction, learners need to be exposed to diverse expressions and uses of the same word (p. 90). Therefore, he encourages mental exercises to expand one’s mental lexicon which by its own nature is idiosyncratic and has an infinite display of contextual prompts that our lexicon depends on to produce language.

Moving on the same path of finding out what factors could affect someone’s interpretation of utterances, I decided to use Karlsson’s (2013) study. Since my research is about a bilingual and bi-cultural context, it seemed appropriate to support my study with various research done on second language learners. In her study, Karlsson (2013) examines students’ comprehension of polysemous words in their L2 compared to their L1. Her subjects were 15 advanced Swedish first-term university students. Karlsson, gives them 40 decontextualized polysemous words in English (L2) and in Swedish (L1) respectively and asks them to pick the right description of the word from a set of six meanings, only two of which were correct. Subjects displayed poor knowledge in both L1 and L2 polysemous words. The author finds that the frequency of the polysemous words themselves made little significant difference however, the frequency of the multiple senses associated to the words, and the meaning of the senses that was the most frequently tested, was the best known amongst the participants.
Holtgraves (2007) in his turn examines and compares the speech act comprehension of native speakers and non-native speakers of English. Hotlgraves conducts his study on 18 native speakers of English enrolled in Introductory Psychology classes at Ball State University and 16 L2 participants from different countries recruited from various campus organizations. Participants were given 24 frameworks each containing 12 speech act and 12 control scenarios. Also, each describing a situation between two individuals then followed by some of their remarks and the last remark was the target utterance that represented either a speech act version or a control act version, a second later a string of words would appear on the screen and the participants had to tell as fast as they could whether this was a word or not. The experiment was done using the Eprime software and were able to perform six practice trials before starting the actual study. An excerpt of a scenario taken from the article itself, is given with the speech act version written in italics and the control version written in parentheses replacing the italicized materials. See Figure 1.

Jenny and Emily had been close friends since grade school. Now they were rooming together at college. Emily tended to be very forgetful. Today, Jenny was sure Emily didn't remember (had forgotten) her appointment. Jenny: Don't forget (I’ll bet you forgot) to go to your dentist appointment today. Probe: Remind.

Figure 1. From Holtgraves (2007, p. 600)
Lexical decision speed, reading time for final utterance, and correctness or incorrectness were immediately recorded. L1 speakers were faster in making lexical decisions than L2 speakers, and were quicker in judging the target words following the speech act utterances than following the control utterances. They also did that faster and more accurately than did the L2 speakers. However, both were not significantly different with their lexical decisions, they mainly differed in the speed of reading and judging, which implies that automaticity while present in L1 learners, is not in L2 learners. That’s because the latter require more time and effort to comprehend which makes automaticity hard to achieve.

Adding the notion of culture to the way people interpret or understand utterances, it seemed convenient to mention Shujing and Tongpei’s (2011) study. A quick distinction between connotation and denotation is needed. The denotation of a word is its literal meaning, the connotation of a word on the other hand is the commonly understood idea or emotion that the expression evokes in addition to its literal meaning. Adding the effect of culture to that association of meaning would be considered cultural connotation. In their study, Shujing and Tongpei (2011) focus on the transfer of cultural connotations of vocabulary of 216 Chinese EFL learners. Those participants were English and non-English majors and came from three Chinese universities and participated in a series of testing for the study. Their instrument thus contained three parts as described by the authors: “transfer of cultural connotation of vocabulary test, a sociocultural test, and the English Chinese test scores in the university entrance examination.” (Shujing, Tongpei, 2011, p. 101)
The first test has two parts, one containing three questions about a specific category; and the participants are to write at least 20 words about how they feel about the words in those categories. The second part has nine multiple choice questions giving an interpretation of Chinese vocabulary words; in this part, and the participants are asked to choose the interpretation that they think best fits the word. As for the sociocultural test, it proposes two categories. The first has 20 questions reporting on “nonverbal behaviors in intercultural interaction. The second part also covers 20 questions that are products of verbal behaviors in intercultural interaction” (Shujing and Tongpei, 2011, p. 101). The third test that reveals the participants’ university entrance examination scores, reflect the language proficiency of these participants. In the three tests the aim of the authors is to see if the transfer exists in cultural connotation of vocabulary and if it correlates with the participants’ intercultural awareness and whether the latter correlates with the participants’ language proficiency. According to the whole group analysis the authors find that there is a positive correlation between language proficiency and transfer of cultural connotations of vocabulary, and between cultural awareness and language capabilities among EFL learners. Shujing and Tongpei (2011) emphasize that age, gender, learning style, and personality have an effect on that transfer. The authors also point out that words that seem to be viewed as cultural specific are more prone to be transferred than those vacant words that are associated with general cultural features. Finally, they conclude by highlighting the 4 factors that may have influenced this transfer of cultural connotation of vocabulary between English and Chinese: 1) Perceived markedness of L1 by L2 learners, 2) L2 learners’ language proficiency, 3) L2 learners’ intercultural awareness, 4) Individual learners’ differences.
Since one of the attributes I am testing in my present study is religion and whether it has an effect on how we comprehend concepts or expressions, I decided to highlight a study by Penteado, Kavalco, and Pazza (2012). Penteado et al. aimed through their study to evaluate the influence of some sociocultural factors upon learning about and understanding biological evolution in Freshman university students. They also wanted to test whether or not these students accepted the teaching of creationism in science classes as an alternative to evolution. The participants in the study were 231 freshman students first year in biological sciences and human sciences in the Universidade Estadual do Centro-Oeste de Parana (Brazil). The research was done using a questionnaire consisting of 10 questions about evolution and 4 sociocultural questions. These four questions were respectively about the acceptance or rejection of teaching creationism in science class as an alternative to evolution, parental educational level type of high school the students graduated from public/private and their religious beliefs and positions. The results of the authors’ study showed that religion had the most significant effect on the students’ answers. The parents’ educational level and the high school the participants graduated from had little effect. The authors found that most Evangelicals opposed the biological evolution. The authors also assert that Catholics’ religious convictions did not only interfere in the comprehension of evolutionary evidence, but also in understanding the process of evolution itself. Penteado et al. (2012) also note that the highest rate of students who accepted the teaching of creationism belonged to the biological science course and were all Catholics. The authors continue by stating their concern that these students will eventually become biology teachers and may teach equivocated interpretations to their students due to their religious convictions.
This study underlines the effect of religion on how one could perceive or understand any given concept, or even accept to comprehend it. In this study, there is a controversial concept which is creationism versus evolution. In contrast, my research does not focus narrowly on a very controversial topic and religion may not have any effect on the responses my participants give. However, I wanted to test the religion factor to see if in some instances (especially in section 4, which consists of cartoons) religion may have had an effect on the responses my participants gave.

The preceding articles discussed how people take in information from the outside world and understand it. Some articles discuss second language speakers, others underline gender, religion and culture, and others explain the mental process of comprehending words and expressions. Moving forward, the articles featured explain comprehension on a different level. These articles introduce the concept of context and dialogue and how the combination of these two and whatever is in the surrounding real-world in which this dialogue or interaction is taking place, affect our understanding of situations or utterances.

Yngve (2008) is a pioneer linguist who has his innovative insight into how people communicate and understand one another through dialogue. Yngve (2008) talks about studying how people communicate as a hard science linguistics (HSL) which studies people and other relevant parts of the real world like, communicative energy flow, real world surroundings rather than some unreal concept of language, through observation and experimentation. Yngve analyzes people engaged in narration and dialogue at two different levels of description: the individual and the social level.
In his article, Yngve (2008) discusses the hypothetical case of five children playing a game of tag in the playground. One of the kids is “it” and another one is the observer and narrator of the game doing so via a cell phone to another kid who would be the reporter. The latter will have to understand the narration in terms of orthoconcepts. To formalize the activity, Yngve sets up five systems for the five children as role parts each with a property followed by values for the individual children names, then he sets up a tag linkage system with its properties. According to Yngve, in HSL, even the time required for things to happen is taken into account like the time of observation, and the time of narration. It is assumed that the observer has an idea of what a tag game is, and that the children know their role parts and the narrator knows whom they are speaking to on the phone in the conversation linkage. Yngve asserts that such analysis could be done either in terms of role parts or linkages. He also wonders whether by observing “play” or engaging in “play” one could understand or even partly acquire social interaction skills via individual and role part properties.

Yngve doesn’t stop here. He also says that “expectation” has a key role in communicating abilities and understanding social interaction. Lastly, Yngve wonders whether learning and long-term memory could be integrated into hard science linguistics. This last statement, in a way suggests relating HSL to how we can analyze second language acquisition by observing learners and their real-world environment and consequently improve SLA strategies.

Coleman (2012) uses a scene from the movie “The Odd Couple” (1968) to explain the concept of “co-reference among words” (Coleman, 2012) used by people
communicating, and explained in terms of hard science linguistics using orthoconcepts (Coleman, 2012) and domain of control (Yngve, 2007). See Figure 2.

Oscar: “You talkin’ to me?”
Felix: “Yeah, I’m talking to you.”
Oscar: “Whadda ya wanna know?”
Felix: “I just want to know if you’re going to spend the rest of your life not talking to me. And if you are, I’m going to get a radio.” [Chuckles.]
Oscar: “You had your chance to talk last night. [Stalks into the dining room.] I begged you to come upstairs with me. Here. Here’s a key to the back door. [Slams the key down onto the table and taps at it.] Now, you stick to the hallway and your room and you won’t get hurt.”
Felix: “Uh, meaning what?”
Oscar: “Meaning that if you want to live here, I don’t wanna see ya, I don’t wanna hear ya, I don’t wanna smell your cooking. Alright? Now kindly remove that spaghetti from my poker table.”
Felix: [laughs and makes a dismissive gesture.]
Oscar: “What the hell is so funny?”
Felix: “It’s not spaghetti. It’s linguine.” [Chuckles.]
Oscar: [Picks up the plate, steps to the kitchen door and hurls the plate against the kitchen wall, splattering linguine and plate shards.] “Now it’s garbage.”

Figure 2. From the film The Odd Couple (1968) as quoted in Coleman (2012, p. 1)

Coleman (2012) here notes that this dialogue consists of the viewer’s understanding co-references to what is on the plate by Felix and Oscar, even when what is on the plate is referred to in different ways. The viewer understands that Oscar has an understanding of the structure of the stuff on the plate as “spaghetti.” The viewer understands that Felix has an understanding of the structure of the stuff on the plate as “linguini.” After Oscar throws it against the wall, the viewer understands that Oscar has
an understanding of the function of the stuff on the plate as “garbage.” He continues by
displaying the four main points about co-referentiality: 1) words don’t refer, people do; 2) 
people refer to their own concepts not to things; 3) the predictive weakness of “context”; 4) the predictive power of “domain of control” (p. 2, 3, 4)

The first stage, according to Coleman (2012), implies that words or the noise of
the speech carry no meaning, because that would be a domain confused view of
coreference, rather it’s the “referring behavior of the hearer” that creates the meaning.
For the second stage, he clarifies that the hearer does not refer to the thing itself directly,
but the concept he/she has of that thing. Furthermore, he adds that to describe such
concept it is essential to use hard science linguistic construct of the individual
orthoconcepts to comprehend how people conduct co-referencing between words in a
speech. Coleman, explicates the third stage, by reporting different views about linguistic
context that he describes as domain confused. For example, he mentions Weischedel
(1979) who proposes that linguistic context could be “previous text”, and Crystal (1987)
who suggests it could be “surrounding text”, or McCawley (1972) who asserts it could be
“logical representation of the text.” The extra-linguistic context, on the other hand is
usually thought of as non-language entities like the individual’s “physical surroundings”
(Coleman, 2012 p. 3). The fourth stage, Coleman asserts that anything in the real world
that is relevant to the description of people communicating, is referred to as “domain of
5) as he describes domain of control as “procedures [in the linguistic properties of a
person] have been triggered and are active, some have nearly all their conditions satisfied
and are ready to be triggered, and others have some of their conditions satisfied and are
ready to be made ready. The active procedures or those that stand ready or nearly ready to be triggered constitute [the domain of control].” (Yngve, 1996, p. 276). Therefore, back to Oscar and Felix, the plate of pasta in Oscar’s understanding of it, is “spaghetti” reflecting a property of Oscar not the plate of pasta. Felix refers to it as “not spaghetti” but as “linguine” according to his understanding of the initial physical form of the plate of pasta. Felix’s laughter in HSL, is considered an orthoconcept of Felix correlating Oscar’s understanding of the plate of pasta with ignorance. However, when Oscar throws that plate of pasta on the wall, his understanding of its functional aspect change. He now no longer considers it food but rather garbage. Thus, as Coleman (2012) concludes, that referencing concept is connected to “the domain of control” which in turn is affected by the “linguistic context and extra-linguistic context” in the mind of the individual.

As we explore more this concept of “domain of control” and its essential role in communication it felt inevitable to mention Coleman (2013) since my study will contain various cartoons that depict humor and American cultural meanings. He contends that when we use HSL to observe real world entities without any assumptions, we see raw speech, as sound waves, and real world context surrounding that speech as people communicating, consequently we avoid domain confusion. Coleman, in his article, uses a New Yorker (2009) cartoon captioned “One potato chip?” as an example. The cartoon features two children at night wearing masks and walking away from the front of a house with a jack-o-lantern on the front step. Each child is carrying a paper bag and looking down inside of it, and the girl is featured wondering: “one potato chip?” According to Coleman (2013, p. 2, 3) in HSL “the relevant real-world elements are presented in form of a linkage model of the relevant physical-domain entities.” In the case of this cartoon,
the linkage is that of trick or treating, and that linkage consists of participants who in this case are [child 1] [child 2] and [the resident] who supposedly had opened the door and given them a treat already. The props here are [costume 1], [costume 2], [goodie bag 1], [goodie bag 2], [treat 1], and [treat 2]. As for the setting, it consists of the front door of a suburban house on a Halloween night. The viewer observing this cartoon in HSL, would examine it in terms of a linkage forming an understanding of the main components of a trick-or-treat linkage in terms of orthoconcepts (Yngve 2007, Coleman and Sypniewski To appear). In other words, the viewer sees the costumes, (one is a devil and the other is a witch), then sees the dark sky, the jack-o-lantern on the front step of a front door, a goodie bag with the kids as they are looking inside of it, all of which implies that this scene is of a Halloween night in a residential exterior.

In HSL this linkage is described by relating it to the memory system of the viewer that is being activated. Coleman (2013), like Yngve (1996), asserts that every orthoconcept activated or nearly ready to be triggered would play a key role in the viewer’s interpretation of the cartoon. Thus, it is the viewer’s understanding of that concept of “trick-or-treat” that will create the domain of control that will modify the interpretation. These orthoconcepts as Coleman (2013) declares, can even activate earlier events that don’t show in the cartoon, but are assumed. For instance, the fact that the children knocked at the door, that the resident opened the door, that the children said “trick-or-treat”, and that the resident gave them a treat, and that this treat is inside the goodie bag. The fact that the cartoon shows the girl saying “one potato chip?” would also imply that the treat received from the resident must have been a single potato chip. However, this cartoon is supposed to be a joke, and to understand that joke, Coleman
(2013) argues, is through a secondary domain of control which in this case would be, the Lay’s potato chip slogan “Betcha can’t eat just one.” The girl in the cartoon saying, “one potato chip?” would activate such memory if the viewer had a prior knowledge base of that slogan. Once activated, this memory will serve as a domain of control that will interpret the treat of “one potato chip” in the cartoon as nothing but a trick played by the resident, and this reversal of roles as Coleman (2013) notes, is a factor of jocularity.

Basically, to establish domain of control in hard science linguistics, one refers to stored memories in the viewer’s brain that count as knowledge base. Then one would detect which of these memories is activated. Therefore, it is the human memory system, as Coleman (2013) argues, that determines the relevance that in turn affects our interpretation (p. 6).

People’s memory systems being activated dictating their interpretation, then culture, education and religion might have an effect since these are embedded in our memories. However, people also are relying on rhetorical relations to supplement their deductions then that might be affected by their proficiency in English. These are the key assumptions that led to my research question.

**Research question:** Could gender, educational level, religion, ethnicity, and first language affect how one interprets general real-world expressions, humor, profanity, and cartoons in a second language one has either little or no proficiency in?
Chapter 2

Method

Participants

My research paper is quantitative and my findings are illustrated statistically. At first, I gathered the most appropriate sample of population that fits the criteria I was looking for to complete my study. I contacted students, colleagues, and professors at the University of Toledo via email (shown in Appendix A) to inform them of my interest in conducting a research study for my thesis and asked them if they would be interested in participating. I explained to them that they will have to read and sign a consent form before we can do anything, and that they have the liberty to change their minds any time during the study. The same email, also was sent to friends and acquaintances in the Arab community, outside the University of Toledo but within the Toledo area, to find out who would be interested in participating. I recruited as many as 60 people from whom I gathered enough data to randomly select my sample.

The purpose of my study was to find out how people of different native and second languages, ethnicities, gender, religions, and educational levels can interpret expressions from another culture written in English; the question then would be, “Which attributes affect their interpretations and are these interpretations correct or not?” My plan was to end up with three groups of participants, one of native English speakers, another of native-Arabic speakers, and the last one of non-native English and non-native Arabic speakers (such as Latinos, Indians, and Asians). I ended up with 8 participants in each group with all the attributes mentioned above. In other words, my sample was balanced across both genders, comprised different religions and ethnicities, and the 4 educational
levels (Ph.D, graduates, undergraduates, and high school education). My sample also had
the different native languages I intended to test (English, Arabic, and Other) some had
second and some had even third languages. In each group, I had two Ph.D. professors,
two graduates, two undergraduates, and two participants with a high school education.
Each group ended up consisting of 4 males and 4 females and were evenly divided across
Muslims, Christians, and Jews. When I recruited my subjects via email, I met with those
who were interested in participating and read and explained the consent form then had
them read it alone and sign it if they agreed with the terms. The subjects interested in
participating, that study or work at the University of Toledo, were given the consent form
along with the survey and questionnaire, at the University campus. I met the professors in
their offices, my fellow graduates in their cubicles, and the undergraduates, during one of
their class periods after asking their professors for permission. As for the participants
from the Arab community in Toledo who count as friends and acquaintances, I
met them at their own convenience in terms of time and location within the Toledo area.

**Instrument**

Once the consent form was read and signed, I gave my subjects a seven-question
survey that asked them about their religion, gender, race and ethnicity, educational level,
native language, other second language(s) they know, and my last question was to rate
their proficiency in those second language(s) on a scale of 1 to 5 (1 being the lowest and
5 being the highest). Below in (figure 1) is a replica of the survey, and another is shown
in appendix B. Once done with the survey my participants were given the questionnaire
to answer right away. This procedure took no more than 30 to 45 minutes depending on
the subjects. Every survey was stapled with its corresponding questionnaire, both with no identifiers, and were collected once participants were done. Once all data was in my possession, I went over the survey and randomly selected my sample of 24 subjects in accordance to gender, native language, education level, and religion. See Figure 3.

SURVEY QUESTIONS

1- Gender:

2- Religion:

3- Race and/or ethnicity:

4- Educational level:

5- First language:

6- Other language(s):

7- Rate your proficiency in your second languages in the box below. Circle one number from 1-5

for each language:

<table>
<thead>
<tr>
<th>Second Languages</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your kind participation.

Figure 3.
The participants I selected for my sample were assigned to one of the three groups I had depending on their criteria: Native English speakers, native Arabic speakers and the non-native English non-native Arabic speakers (this category is labeled as “Other”).

The moment my sample was set, I gathered the data from the questionnaires and tested the attributes of my participants (religion, gender, education level, native language) in relation to the data I collected. The results are shown and analyzed in chapter three.

**Section one: Arabic expressions.** The first part of my questionnaire consisted of Arabic sayings, translated literally to English, and exposed to all three groups of participants. This section consisted of a set of scenarios that put the reader as either part of the dialogue or a third party hearing that dialogue. Then the participant had three interpretations to the expression in question, and had to pick one option that they thought was the best interpretation in relation to the scenario at hand. This section was supposed to test how attributes of interest affected how the participants understood the expression from the given scenario. The main targets were the native English speakers and non-native English speakers more so than the native Arabic speakers. Nevertheless, native Arabic speakers were tested on this section, despite the fact they may have been familiar with the expressions since these are taken from the Arabic culture and specifically Lebanese. “Would non-Lebanese Arabs have understood the expressions or would the scenario have confused them rather than helped them?” Testing the native Arabic speakers in this section served as a benchmark group. An excerpt from this first section of the questionnaire is shown in Figure 4.
SECTION 1

Read the scenario and try to infer the meaning of the expressions. Pick one of the three options given.

Go tile up the sea.

Scenario: You are walking by in your neighborhood and you notice a couple enjoying their morning walk and conversing, as they pass by, you overhear one telling the other: "Go tile up the sea!" You think:

A) He wants his friend to go away and leave him alone.

B) He thinks his friend is suggesting something impossible.

C) He is telling his friend to control himself.

Figure 4.

“Go tile up the sea”, is a Lebanese expression that tells another person the speaker is frustrated with them and doesn’t care what they are going to do next because whatever they do won’t matter and won’t work. Therefore, the expected answer to this expression was option B) “He thinks his friend is suggesting something impossible.” The key here was to find out whether it was the scenario given, the participants’ culture that might have had a similar expression they related to, or another attribute that had an effect in triggering the interpretation. Another question was how many interpreted it correctly, and whether there was any relation between the answers and the attributes being tested.
“Which one of the criteria had the most effect: Educational level, gender, ethnicity, religion, or native language?” Did the native Arabic speakers do better than the others given the fact that these expressions derive from their own culture?”

Section two: English expressions. The second part of my questionnaire explored a different context. The participants read a set of scenarios in which there was a conversation they were either a part of or were a third party listening to it. This conversation was with a native-English speaker, who was using English expressions well known in the American culture, the participant who supposedly was part of that conversation, read the scenario then chose one of the three interpretations suggested for that expression. Their choice showed their comprehension of the extended meaning behind these sayings as they appeared in the scenario. In this section, the roles were reversed, and native English speakers were the ones expected to understand these utterances in comparison to the native Arabic and non-native English speakers. However, they were equally tested and analyzed as a benchmark group. Therefore, the main targets of this section were the native Arabic speakers and the non-native English speakers. An excerpt from the second section is shown in Figure 5.
SECTION 2

Read the scenario and try to interpret what the speaker means with his expression, pick one of the three options.

Is the pope Catholic.

Scenario: You made the most delicious looking cake, and you ask your American friend if he would like to have some. He replies: ”Is the pope Catholic?” You think:

A) He probably didn’t hear you well.

B) He doesn’t want cake and wants to change the subject.

C) He loves cake and cannot wait to eat some.

Figure 5

“Is the Pope Catholic?” is a well know expression in the American culture that someone tells someone else to insinuate that what is being said is obvious. The Pope could be nothing but Catholic, this is something certain that requires no doubt. Therefore, the expected interpretation for this expression was option C) “He loves cake and cannot wait to eat some.” It was expected that Native English speakers understood this expression, “But did the native Arabic and the non-native English speakers understand it? Did the scenario help more than the textual meaning of the word?” The aim was to find out who had the correct response and who did not in relation to the attributes being
tested. “Did educational level have a major effect? Did Muslims and Jews connect it to something religious just because the word “Pope” was part of the expression?”

Section three: profanity and vulgarity expressions. The third part of my questionnaire consisted of a scenario in which the subject was a third party witnessing a fight between an American young man and his sister where profanity and vulgarity was used in a disguised manner. In most cultures, when it comes to profanity a population tends to become creative in disguising the “taboo words” by either changing ending of the word or simply substituting it with a very similar word that is agreed upon to mean the same thing. In this section for every profanity expression there were three interpretations from which the participant picked one that they thought was the intended meaning. Since these are profanity words used in the American culture, it was expected that most native English speakers had picked the right answers. This section tested the native English speakers along with the native Arabic and non-native English speakers. The aim was to find out whether the participants first established that there was a fight going on between the siblings and that they were insulting each other. An excerpt from the third section of the questionnaire that contains the profanity expressions, shown in Figure 6.
Section 3

Read the scenario and try to interpret what the brother and sister are trying to say to each other. Pick one of the three options.

Scenario: You are on your way to visit your American friend. You get there in the middle of a fight between him and his sister. All you could hear was one screaming at the other. While you are trying to understand what was going on, your friend yells: ”Son of a gun.”

You think:

A) He regrets fighting.

B) He is frustrated.

C) He refuses to argue anymore.

Figure 6

“Son of a gun”, is a euphemistic expression that is used to take the place of “son of a bitch” and was part of a scenario that displayed a fight between two siblings who were insulting each other supposedly in front of the “participant”. Therefore, the correct option to pick that best described this expression was option B) “He is frustrated.”

Native Arabic speakers and non-native English speakers who have heard the expression from an American movie they watched where profanity was used, might have made the association. This type of openness sometimes is restricted due to religion, and ethnicity, which might have had an effect on which option my participants chose in this section.
The aim here was to find out which attributes affected their understanding. Ethnicity and religion might have had an influence, since these two attributes may cause some people to never be exposed to expressions like these, maybe not even in their native language.

The full questionnaire is shown in appendix C, and all the expressions in sections 1, 2, and 3 are explained in Appendix D along with the correct interpretation for each expression.

Section four: cartoon. The fourth part of my questionnaire involves cartoons that reflect American socio-cultural meanings, each with three suggested interpretations and the participant picks the one he/she thinks is the message behind that caricature.
A) The success of a party depends on a lot of planning.

B) Designated driver is the name you give to the host of the party.

C) A successful party is one with no accidents.

In our American culture drinking alcohol in parties is almost present by default especially among younger adults. Therefore, usually it is encouraged that there be a designated driver, who would abstain from drinking to make sure that he/she will take the rest (who are drinking) back home safe and sound. This cartoon, highlights this concept which is very popular in the American culture as an effort to keep our people and especially the young adults safe from accidents due to driving while drunk. Given this
explanation, the most appropriate option to pick for this caricature was option C) “A successful party is one with no accidents.”

The aim was to see if the participants understood the cultural meaning behind the cartoon, and which attribute helped the most. Religion and ethnicity might have played a role since those who don’t drink alcohol due to their religion have never been exposed to the issue of alcohol in a party. They also may have never been aware how important it is to have a designated driver in parties where alcohol is served.
I NEED ONE PEPSI, ONE COKE, ONE 7-UP, ONE LARGE COFFEE, ONE SMALL COFFEE, ONE MINT TEA, ONE GREEN TEA, ONE ICED TEA, ONE ORANGE JUICE, ONE BOTTLED WATER, AND ONE NONALCOHOLIC FUZZY NAVEL. THEY’RE FOR OUR DIVERSITY COMMITTEE.”

www.gasbergen.com

A) A committee that is diverse has a lot of people in it.

B) People from diverse background like different drinks.

C) People often misunderstand what diversity really is.

This second cartoon showcases the trend in many companies in the United States of recruiting employees from different cultures and ethnicities to show off their openness to diversity and of course to make their market more appealing to all ethnic groups and other international companies. However, the term “diversity” is not always understood correctly. So, by ordering so many different types of drinks the cartoon was highlighting
how sometimes we tend to identify diversity by what people eat or drink. It also shows how stereotypical some people in the American culture can be when identifying diversity. For example, Indians usually drink tea, Muslims don’t drink alcohol, and so forth, but these are all generalization and do not apply to all Muslims or all Indians per se.

Therefore, the correct interpretation for this cartoon was option C) “People often misunderstand what diversity really is.” Educational level might have had effect on the participants’ awareness about diversity, or maybe this concept is not popular in non-Western countries. Therefore, ethnicity and religion might have altered the participants’ interpretation. The findings in chapter three reveal the answers, because the aim behind this cartoon was to figure out what attributes had the most effect on the subjects’ interpretation.
3)

In this cartoon there are two men one who has a suite on and appears to be the boss and the other with a white shirt and a tie who appears to be an employee, and his head is shaped like a box.

“THINKING OUTSIDE OF THE BOX IS DIFFICULT FOR SOME PEOPLE. KEEP TRYING.”

www.glasbergen.com

A) Some people are more creative than others.

B) Some people are arrogant about being more intelligent.

C) Uncreative thinkers are unhappy people.

The expression “thinking outside the box” means being innovative and creative by doing or coming up with ideas that others haven’t thought about before. This demeanor is always encouraged in most work places because it pushes the employees to be avant-garde and bold with their business ideas. It also creates a sense of competition amongst the employees who will race to be the first with the innovative ideas to look better than the rest. Therefore, the most adequate interpretation to this cartoon was option
B) “*Some people are arrogant about being more intelligent.*” Participants unfamiliar with this term might have been confused with the picture of the head in the shape of a box. Maybe educational level might have helped, since educated people who work in companies are always exposed to this kind of competitive philosophy in the work place. It also could have been that this comment might already exist in their own culture. The aim was to find out what attributes may have affected the participants’ interpretation.

This cartoon is tricky because having a man with a square head that looks like a box could be interpreted in two opposite ways especially in the American culture. One could be “thinking outside the box” and the other could be “blockhead”. The first denotes innovation, and the second indicates stupidity (as in airhead). This humorous twist gave this cartoon the tendency to be interpreted in two different ways. However, the comment that accompanied the cartoon may have guided the response.
A) The girl was hiding that she is an Indian.

B) People have stereotypes about how Indians look.

C) The boy is confusing Native Americans and people from India.

“Indian” in the United States does not most often mean the nationality of someone born in India. Any non-American may automatically link the word “Indian” to the nationality of someone from India because there is no other mental link to it. In the United States the term “Indian” could trigger different mental associations: One is the Native Americans who are part of the American history and Thanksgiving which is a major Holiday in the United States. Another, is the beautiful Disney character of Pocahontas, a very well-known Disney movie in America. One other association with
that term would be the Cleveland Indians football team, one of the main football teams in
the NFL. For a native English speaker, the term “Indian” might trigger any of those
associations due to the various connotations this term may trigger in their mind. The idea
depicted in this cartoon is the boy’s understanding of Indians in terms of cultural
stereotypes. All the images in his head are based on such stereotypes, not on real native
Americans. This being said, the most appropriate interpretation was option B) “People
have stereotypes about how Indians look.”

The participants’ choice could have been influenced by a stereotypical point of view or
by an openminded understanding. The aim behind this cartoon was to see who will pick
the right option and who will not, and what were the attributes that may have played a
role in the selection.
5) The cartoon depicts two women: one wearing a burka and the other a bikini. The woman in the burka is looking at the woman in the bikini and thinking, "Nothing covered but her eyes, what a cruel male-dominated culture!" The woman in the bikini is looking at the woman in the burka and thinking, "Everything covered but her eyes, what a cruel male-dominated culture!"

thesocietypages.org

A) Women who must cover themselves are male-dominated.

B) Women who show their bodies are male-dominated.

C) Ideas about male-domination depend on your point of view.

This image carries a lot of controversy in it. Therefore, religion and ethnicity might have had an effect on the interpretation. Putting a veil on for women is a controversial topic even amongst Muslims. Some believe that it is mandated by the Holy Quran and others believe it was a socio-cultural rule back in the days of the Prophet Mohamad (peace be upon him) but it is not the case nowadays. Some say it is not a rule
to be taken literally rather something that simply symbolizes chastity and decency. Even amongst non-Muslims the idea of a woman covering her hair is not foreign at all. Christians do it before they enter church, Indians do it when they put on their traditional clothes, in addition to many other cultures and religions around the world. However, the type of veil shown in the cartoon depicts the Muslim women versus non-Muslim women, and the concept behind putting a veil on versus being free to show one’s body. It shows how each woman (the Muslim and the non-Muslim) thinks they are on the right side of the controversy. Both women in the cartoon believe that the other is living in a male dominated culture. One culture makes women cover up their whole body except their eyes and the other culture makes women walk half naked with only their eyes covered with sunglasses. Each woman in the cartoon feels sorry for the other for living in a male dominate culture. Although the counterargument is always present on both sides of the spectrum, this cartoon shows that both women think that they are right and that the other is being controlled by her male dominated culture. In other words, they both think they are right, but they may very well be both wrong. Therefore, the most appropriate interpretation for the cartoon was option C) “Ideas about male-domination depend on your point of view.” I believe that this cartoon tested the three groups similarly, because this concept is as much a conceptual matter as it is a religious, linguistic, or ethnic matter.
All societies face problems with new technology.

People anywhere can be distracted if they let themselves.

Unsophisticated people should not try to use advanced technology.

“Texting!” is a word that we overuse these days. It is also an exercise that has not skipped any culture, country, race or religion. Anyone can relate to texting, and how such an activity could sometimes make us lose focus of other more important things around us. So many accidents and deaths happen because of texting and not paying attention on the road. So many people walk while texting without noticing a hole in the ground or a pole in front of them. This cartoon takes this same idea of texting on the road without paying
attention and mixes it with humor. The jocularity here, is taking this 21st century invention and integrating it into the 18th or 19th century, by illustrating native Americans riding their horses while texting. In the cartoon, one Native American is on the ground after hitting a tree due to lack of attention on his part because he was texting. Therefore, texting while driving on the road in the 21st century or while riding your horse somewhere maybe in Texas in the 19th century is bad, because you will get into an accident either way. The most acceptable interpretation to this cartoon was option B) “People anywhere can be distracted if they let themselves.” Since nowadays cellphones are used everywhere in the world, I would assume that the idea of texting while driving is not considered a good idea anywhere where cell phones are available. Nevertheless, the humor in this cartoon may not have translated correctly due to any of the attributes of my participants. Therefore, the aim of this cartoon is to find out how the subjects understood the cartoon which attributes affected their interpretation the most.
"IN AN INCREASINGLY COMPLEX WORLD, SOMETIMES OLD QUESTIONS REQUIRES NEW ANSWERS."

www.glasbergen.com

A) The student is making an excuse for not knowing the answer.

B) We need to change some concepts to make life easier.

C) There is not one only answer for a problem.

We live in an innovative world and we tend to rethink and reanalyze many old concepts and ideologies. This world we live in is evolving so rapidly that many old convictions simply don’t fit into our fast, multitasking mind and life. That’s why we tend to give ourselves new answers to old questions, we readjust our convictions and we alter our beliefs to what works best for us in the present time. This paradigm is illustrated in the cartoon above although it is presented in an infantile way. Showing a school kid solving a simple Math problem by giving a totally new unfamiliar seemingly wrong response, and the Math teacher next to him with a stick in her hand looking puzzled.
Clearly the most logical interpretation was option B) “We need to change some concepts to make life easier.” In every culture, there is always a group of people who advocate change of thought and evolution. Nevertheless, the idea behind this cartoon may not be clear to some non-native English speakers. The illustration may add some confusion and make the participant think the idea revolves around a school setting or mathematics. It would be interesting to see if educational level had an effect on the way some of the participants answered.

8)

This cartoon has a woman standing holding a clipboard and a pen and she is writing as there is a half-man half-horse standing next to her and talking.

ETHIC ORIGIN? PUT ME DOWN AS MIXED RACE

Cartoonstock.com search ID: wda1787

A) Differences among people should be more accepted.

B) Race and ethnicity can be a confusing topic.

C) The man is wearing a horse costume as a joke.
In most formal papers in the United States, we are prompted to fill in our race or ethnicity. Whether it is at a doctor’s office or while opening a bank account the forms always ask about race and ethnicity. The issue here is that many races end up being lumped together because some people can’t seem to find the one option that fits them the most. I am half Lebanese and half Colombian, when I fill out such forms, I have to pick one option, either Hispanic (which I’m not one hundred percent) or White (which I’m not at all). There’s no Middle Eastern or mixed-race option. There’s only “Caucasian/White,” “African American,” “Hispanic,” or “other.” Sometimes even the option “other” does not exist. This is a major issue in the United States; many ethnicities or races or mixed races are not represented, and end up being lumped into one category called “other.” This cartoon depicts this issue in a humorous way by illustrating a half man half horse apparently applying for something and the lady next to him is asking about his ethnic origin. Clearly the most appropriate interpretation for the cartoon was option B) “Race and ethnicity can be a confusing topic.” For those participants who come from a closed-in culture where everybody marries from within the same race, country and even family, may not understand the humor or idea behind this cartoon. The aim of this cartoon is to see how the participants understand the idea behind it and what attributes contributed to this outcome.
A) The man is more patient and suggests a more relaxed approach to shopping.

B) Men know a lot more about shopping on-line than women.

C) The man is apologizing for making the woman go shopping alone.

“Cyber Monday” and “Black Friday” are terms that have long come hand in hand around Christmas time to entice the American people to shop mercilessly. Black Friday usually comes the day after Thanksgiving and promises people unbelievable sales on the basis of “you snooze you lose”. Therefore, many people sleep in tents overnight right next to the store where they want to shop so they could be the first ones in line and get the best deals. It is a very tiring experience, so people get into fights and wait in lines for hours before they can pay and leave. So, a Black Friday shopper might come home with
great deals but with also a great deal of frustration, fatigue, and exhaustion. Cyber Monday, on the other hand is a new thing nowadays, and it comes the Monday after Black Friday with the same great deals if not better, and one can do the shopping right from their living room. The comical side of this cartoon would be obvious to a native English speaker, because Black Friday has existed for years, long before Cyber Monday. However, both are very common in the American culture, and people still enjoy doing both. Some like to shop the conventional way and don’t mind the crowds while others prefer to relax and do it from the privacy of their own homes. Such an American tradition may not be understood by foreigners. It has nothing to do with education, religion or ethnicity is simply a cultural thing that when exposed to it one knows about it. Therefore, the most appropriate interpretation to this cartoon was option A) *The man is more patient and suggest a more relaxed approach to shopping.*” The aim of this cartoon was to see who of the non-native English speakers understood the concept even though they haven’t lived in the country for long. Even having internet access is not a reason for the subjects to know about Black Friday or Cyber Monday. Advertisers change content based on one’s location and past browsing activity. One could get different versions of Yahoo! Depending on one’s location. Therefore, Internet is not key, however the American culture specifically has become so international that people know about it without even living there. The aim of this cartoon was to find out which attributes helped the participants the most in choosing the correct interpretation.
Hypothesis

For the past 15 to 20 years the internet, and social media (and television before that), have invaded every home and are embedded in every cellphone in all communities. People from all over the world have access to internet or social media somehow and the art of sharing is becoming more creative and fast. What happens today that might be very surprising can be shared with your friends in minutes all around the world regardless the distance. These everyday moments carry our culture in them, a culture that is being passed around without one having to travel or live abroad. However, we still understand things differently and that’s because we are different as human beings. We have different experiences, memories, lives we live, traditions we cherish, customs to which we hang on and religions in which we believe. All these are attributes that make us different from one another. In the case of my study I predicted that my participants responded differently in terms of their educational level. That is because the more educated one is the more exposed one becomes to the outside world, the distinct thoughts, and the diverse ideologies. Social media opens our doors to the outside world but does not offer tolerance, education does because we use our minds and not our hearts when we analyze things. The more objective one is the clearer the picture becomes, it is adding subjectivity that can cloud our judgement sometimes. That is why I thought that religion might have had an effect on the way my participants interpreted the expressions. Religion is a very subjective concept that can control every aspect of your beliefs, and actions. The participants who are very religious might have interpreted the expressions and cartoons in the questionnaire the way they wanted them to be, and as close as possible to what they could relate to. One would think that proficiency in English should have helped the
participants understand an expression such as “is the Pope Catholic?” but the “words don’t carry meaning in them” (Yngve, 1996), it is rather the experience of the participant with this expression that counts more.
Chapter 3

Procedure

Using the email I mentioned in my previous chapter, I recruited a total of 70 participants some from the University of the Toledo and others from the Toledo area including friends and acquaintances. At the University of Toledo, I found many native English speakers and non-native English speakers of different educational levels and religions. Based on the surveys I collected at UT, many were Muslims and Christians, others were Hindus, Buddhist, and atheists but none were Jewish. Since my sample was based only on Muslims, Christians, and Jewish, I disregarded the Hindus, Buddhists and atheists and decided to reach out to the Jews Federation of Greater Toledo. I met with the community program director of the Federation, explained my project to her and she was gracious enough to gather some participants from the congregation who were willing to partake in this study. I also reached out to St. Elias Orthodox Church, one of the Christian Arab community churches in Toledo, and met some people from the congregation, many of whom were my friends. I explained my study, then distributed the consent forms. After these were signed I gave my subjects the surveys and questionnaires. I also met with the Imam of the Toledo Islamic Academy (TIA) one of the mosques in Toledo, who was gracious enough to also gather a group of people from the congregation with whom I met and followed the same strategy I did with the others. Additionally, I contacted many of my friends and acquaintances from the Arab community until I ended up with 70 surveys and questionnaires completed and 70 consent forms signed by myself and the participants (the consent form is shown in Appendix E). The consent forms were collected and submitted to my Principal Investigator Dr. Douglas W. Coleman at the University of
Toledo. As for the surveys and questionnaires, they were all collected at the time they were filled out and kept in my possession. The survey and questionnaire took about 30 to 45 minutes to be filled out and had no identifiers. The survey’s questions were very direct and required very short handwritten answers. The questionnaire on the other hand comprised of multiple choice questions that required the participants to simply circle one of three options given for every question.

Once I gathered my data I went over the surveys only, to collect 24 participants based on the three religions (Muslims, Christians, and Jewish), both genders (male, female), the four educational levels (PhD, Master, Bachelor, and high school education) and the three native languages (native English, native Arabic, and other) I wanted to test. Race and ethnicity along with second or third languages, although not the attributes I was testing, were already present by virtue of the diversity in my sample and thus recorded with my data just for reference. I ended up with 24 participants, 12 males and 12 females, 8 Muslims, 8 Christians and 8 Jews. My sample also comprised of 8 native English speakers, 8 native Arabic speakers, and 8 non-native English/ non-native Arabic speakers (I will be calling this group “Other” as I advance through my paper). Each one of these three last categories had 2 with a PhD degree, 2 with a Master’s degree, 2 undergraduates, and 2 with a high school education. Tables 1-5 showcase my sample across all the attributes I tested.
### Table 1
Number of participants by gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

### Table 2
Number of participants by religion

<table>
<thead>
<tr>
<th>Religion</th>
<th>Muslims</th>
<th>Christians</th>
<th>Jews</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3 GROUPS OF PARTICIPANTS</td>
<td>EDUCATIONAL LEVELS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NATIVE ENGLISH SPEAKERS</td>
<td>PhD 2</td>
<td>GRADUATES</td>
<td>2</td>
</tr>
<tr>
<td>NATIVE ARABIC SPEAKERS</td>
<td>PhD 2</td>
<td>GRADUATES</td>
<td>2</td>
</tr>
<tr>
<td>NON-NATIVE ENGLISH AND NON-NATIVE ARABIC SPEAKERS</td>
<td>PhD 2</td>
<td>GRADUATES</td>
<td>2</td>
</tr>
<tr>
<td>NATIVE LANGUAGES</td>
<td>SECOND LANGUAGE</td>
<td>THIRD LANGUAGE</td>
<td>FOURTH LANGUAGE</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>ENGLISH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st subject</td>
<td>Urdu</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>2nd subject</td>
<td>--------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>3rd subject</td>
<td>Arabic</td>
<td>Portuguese</td>
<td></td>
</tr>
<tr>
<td>4th subject</td>
<td>Japanese</td>
<td>Chinese</td>
<td>Russian</td>
</tr>
<tr>
<td>5th subject</td>
<td>Korean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th subject</td>
<td>--------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>7th subject</td>
<td>--------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>8th subject</td>
<td>--------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>ARABIC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st subject</td>
<td>French</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>2nd subject</td>
<td>English</td>
<td>French</td>
<td></td>
</tr>
<tr>
<td>3rd subject</td>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th subject</td>
<td>English</td>
<td>French</td>
<td></td>
</tr>
<tr>
<td>5th subject</td>
<td>English</td>
<td>French</td>
<td></td>
</tr>
<tr>
<td>6th subject</td>
<td>English</td>
<td>French</td>
<td></td>
</tr>
<tr>
<td>7th subject</td>
<td>Hebrew</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>8th subject</td>
<td>Hebrew</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Finnish</td>
<td>English</td>
<td>Swedish</td>
<td>Spanish</td>
</tr>
<tr>
<td>2nd Bengali</td>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Hebrew</td>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Chinese</td>
<td>English</td>
<td>Cantonese</td>
<td>Malay</td>
</tr>
<tr>
<td>5th Turkish</td>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Romanian</td>
<td>English</td>
<td>Italian</td>
<td></td>
</tr>
<tr>
<td>7th Russian</td>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th Hebrew</td>
<td>English</td>
<td>Arabic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Native English Speakers</td>
<td>Native Arabic Speakers</td>
<td>Other</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------</td>
<td>------------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUSLIMS</td>
<td>PhD</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grad</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undergrad</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>CHRISTIANS</td>
<td>PhD</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undergrad</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>JEWS</td>
<td>PhD</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Grad</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Undergrad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUSLIMS</td>
<td>PhD</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grad</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Undergrad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>CHRISTIANS</td>
<td>PhD</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Grad</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Undergrad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JEWS</td>
<td>PhD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undergrad</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 1 in the questionnaire had 6 questions, section 2 had also 6, section 3 had 4, and section 4 had 9 cartoons to be interpreted, which makes the total number of questions in the questionnaire, 25. The first three sections all have expressions and each has three given options, only one of which is the correct answer. Therefore, in these three sections there is a correct or incorrect answer. However, since the fourth section consists of cartoons the options given cannot be labeled as right or wrong rather the idea is to see how each participant understood them and try to find out if there was a correlation between the answer they picked and their own attributes. This being said, the correct answers in section 1 are respectively (B, B, C, C, A, B), and in section 2 (C, B, B, C, B, C), and in section 3 (B, A, A, A).

To start analyzing my data, I first imported them onto an excel sheet which I later imported into an R Statistics. The columns were labeled respectively (participants, gender, religion, ethnicity, and education) followed by sect_1_1- sect_1_6, sect_2_1- sect_2_6, sect_3_1- sect_3_4. I then added the data for section 4 with the 9 cartoons and labeled them sect_4_1- sect_4_9.

Gender was referred to as (M) for male and (F) for female, religion was referred to as (M) for Muslim, (C) for Christian, and (J) for Jewish. Educational levels were labeled as (PhD), (Ma) for Masters, (Ba) for Bachelor, and (HS) for high school education. As for the native languages, I labeled the native English speakers as (E), the native Arabic speakers as (A), and the non-native English and non-native Arabic speakers as (O). Using R, I recoded the variables of sections 1, 2 and 3, by marking all the correct answers given by my participants as (1) and all the incorrect answers as (0). Then I
computed those variables creating a section 1 total of correct answers, a section 2 total of correct answers and a section 3 total of correct answers. An Excel sheet showing this data is presented in Appendix F.

**Native language versus the correct answers in sections 1, 2, and 3**

Now that my data was recoded I decided to first test the number of correct answers in sections 1, 2, and 3 versus the native language attribute, meaning the native English speakers, the native Arabic speakers and the others. My prediction was that the native Arabic speakers will do better in section 1 (Arabic expressions) and that the native English speakers will do better in sections 2 and 3 (English expressions as well as profanity and vulgarity).

The first thing I wanted to do was a normality test for the total for section 1. The scores for that section were not normally distributed according to a Shapiro-Wilk normality test (W=0.88834, p=0.01228). After accomplishing this part, I moved on to test section 1 total versus the three native language categories (E, A, and O). Since this section is not normally distributed and I am testing it across three categories I decided to use Kruskal-Wallis test which showed no difference on section 1 total by the participants’ native language (K-W Chi-squared=0.94844, df=2, p=0.6224).

The second step was to do a normality test the total for section 2 using the Shapiro-Wilk test and it showed that it was not normally distributed (W=0.71744, p=1.728e-05). My next step was to find out if native language made any difference by the participants correct answers in section 2 using the Kruskal-Wallis test (K-W Chi-
squared=5.2607, df=2, p=0.07205). According to the value of p, there was no difference on section 2 by the participants’ native language.

I did a Shapiro-Wilk normality test for the total of section 3 and it showed that the scores were not normally distributed either (W=0.84847, p=0.002048). Then I tested the total of section 3 versus the three native language categories using the Kruskal-Wallis test, and the results showed that there was no difference on the total of section 3 by the participants’ native language. (Kruskal-Wallis Chi-squared=1.2604, df=2, p=0.5325).

**Educational level versus the correct answers in sections 1, 2, and 3**

The second test I wanted to perform was the number of correct answers in sections 1, 2, and 3 versus educational levels across the whole sample. My prediction here was that educational level will have no significant effect on the participants answers because educational level may have helped them understand the known meaning of the words they were reading but the true interpretation of the expression rather depends on their exposure to the culture or how they may have associated what they read to some expression in their own culture, or any other concept in their minds that may have been triggered. Now that I already did my normality test for all three sections, I directly tested the total of section 1 across the four educational levels (PhD, MA, BA, and HS) by using the Kruskal-Wallis test and the result showed no difference (K-W Chi-squared=3.2001, df=3, p=0.3618). In continuation, I tested section 2 total across the 4 educational levels following the same strategy, the scores showed no difference by the participants’ educational level (K-W Chi-squared=0.80146, df=3, p=0.8491). As for section 3 total
using the same Kruskal-Wallis and the scores showed no difference either (K-W Chi-squared=3.0063, df=3, p=0.3907).

**Gender versus the correct answers in sections 1, 2, and 3**

My third test was to find out if there was any difference between the number of correct answers and the gender of my participants. My prediction was that gender had no significant effect on how my participants answered. Since, this time I was testing gender (M, F) which consists of only two categories, and given that all three sections are not normally distributed, I performed the Wilcoxon test and the scores showed no difference in performance on section 1 total between males and females (W=47, p=0.1417). As for section 2 total the scores also showed no difference (W=91.5, p=0.2214). Section 3 total when tested following the same strategy showed again no difference in performance on section 3 total between males and females (W=96.5, p=0.1265).

**Religion versus correct answers in sections 1, 2, and 3**

Lastly, I wanted to test whether there was a difference by religion (M, C, and J) in the number of correct answers across sections 1, 2, and 3. My prediction was that religion had no significant effect on how my participants interpreted the expressions in all three sections. To test my prediction, I followed the same procedure by using the Kruskal-Wallis test to find out whether there was any effect of religion on the total of section 1, the median scores showed no difference (K-W Chi-squared=1.5394, df=2, p=0.4632). The total of section 2 was tested and the scores showed that there was a difference in section 2 among the three religions (K-W Chi-squared=6.0436, df=2, p=0.04871). With section 3, I performed the same test versus the three religions and the scores showed no
difference in performance among the three religions and the correct answers in section 3 (K-W Chi-squared=0.51084, df=2, p=0.7746).

**Testing each cartoon versus gender, educational level, religion, and native language**

Since the cartoon in section 4 had no right or wrong answer, the way I decided to test my data was to analyze every cartoon individually versus gender, then versus educational level, then versus religion, and finally versus native language.

For the first cartoon which was about the “designated driver,” I predicted that Native English speakers will all understand it regardless their religion, their gender, and their educational level, because the concept of having a designated driver in the United States is embedded in our culture. Therefore, I believed most would pick option C: “A successful party is one with no accidents.” However, religion may have played a role here since many religions or sects don’t drink alcohol, so the idea of someone leaving a party drunk and needing a designated driver to take them home may not have been a familiar concept to them. I didn’t predict that gender or educational level or native language would have an effect especially for the non-native English speakers, because this idea is more related to exposure to the American culture rather than to proficiency or education. To test my hypothesis, I used the Fisher’s exact test to see if there is any correlation. It revealed that there was no correlation between gender and the response to the first cartoon in section 4 (p=1). I followed the same strategy for educational level and found no correlation either (p=0.2682). In continuation, I tested cartoon 1 versus religion and found no correlation (p=0.4055). Similarly I tested the native language attribute versus the same cartoon and found no correlation as well (p=0.4055). As for my
prediction, it turned out to be inaccurate since most of my participants picked option (C) regardless their religion and native language.

In the second cartoon that was about ethnicity, I predicted that the native English speakers would pick between option C: “People often misunderstand what diversity really is” and option B: “People from diverse backgrounds like different drinks.” First because the idea of diversity and its importance especially in the workplace is very familiar in the United States. Second, since the USA is so diverse, and each ethnic group displays certain habits, American society ends up developing stereotypical labeling that represent each group such as Indians only drinking tea and Muslims not drinking alcohol and so forth. As for the native Arabic speakers and the others, I predicted that they might choose any one of the options given, because the awareness about diversity in the United States does not exist elsewhere. However, I didn’t predict that gender, religion or educational level would have any significant effect on what option any of my participants may have chosen. To test my hypothesis, I performed the Fisher’s exact test across gender, educational level, religion and native language (L1) and found respectively that gender actually had a correlation with the responses given to cartoon 2 of section 4 (p=0.008007). Educational level on the other hand had no correlation (p=0.8548) similarly to religion (p=0.6864). When testing the native language, the Fisher’s exact test showed no correlation either (p=0.08665). My prediction was that the native language was going to show some correlation, although the p value was above 0.05 it was below 0.10, which is suggestive.
In cartoon 3, which was about thinking outside the box, I predicted that the native English speakers would choose between option A: “Some people are more creative than others” and option B: “Some people are arrogant about being more intelligent.” Because the term “thinking outside the box” is very familiar in American society, the native Arabic speakers and the others may not have heard that term before, so they may have picked any one of the options given. I also didn’t think that gender or religion had an effect on their choice. However, educational level may have had an effect since the term is used mainly in the work place, which could imply that the more educated a person is, the more likely they would be exposed to such a term in their work place and thus pick options A, or B as well. To test my prediction, I performed the same Fisher’s exact test across the four attributes like I did with the previous two cartoons. When testing cartoon 3 versus gender the results showed no correlation between the two (p=0.2138). Educational level, on the other hand, revealed a correlation (p=0.03339). When testing religion as well as native language the scores were the same presenting no correlation (p=0.6642). This support my prediction about educational level.

In cartoon 4 which was about a boy stereotyping an Indian girl, I predicted that, because the native English speakers may have been familiar with all the different cultural icons in the cartoon, they might have picked either option B: “People have stereotypes about how Indians look.” or option C: “The boy is confusing Native American and people from India.” As for the non-native English speakers, I predicted that they might have picked any one of the three options since they don’t have in their culture any of the icons shown in the cartoon to relate to in their interpretation. As for gender, religion, or educational level, I didn’t predict they would have any effect on which option each
participant picked. To see if native language had an effect as I predicted, I tested cartoon 4 across the four attributes similarly to the previous cartoons, using the Fisher’s exact test. With gender the test score showed no correlation (p=1), the same for religion (p=0.109) and native language (p=0.4543). However, when testing the educational level across the responses the test score unveiled a correlation between educational level and the options picked (p=0.01642). This also shows that my prediction about the native language having a relationship with the responses was wrong.

Cartoon 5 was about the male dominated culture as seen by a woman with a veil on versus one wearing a bikini. I predicted that maybe religion might have had an effect on how the participants may have answered. For instance, I predicted that Muslims would pick option B: “Women who show their bodies are male-dominated.” And that non-Muslims would pick between option A: “Women who must cover themselves are male-dominated” or option C: “Ideas about male-domination depend on your point of view.” In this cartoon, I didn’t think that native language, gender, or educational level had any significant effect on a participant’s choice. However, when I examined my data I found out that ironically, all my participants picked the same answer regardless religion, educational level, gender, or native language. There was no way to test this cartoon statistically because it was clear that there was no correlation since all my participants responded identically (C).

Cartoon 6 was about texting. In this cartoon, my prediction was that all my participants regardless their religion, gender, educational level or native language would pick either option A: “All societies face problems with new technology” or option B:
“People anywhere can be distracted if they let themselves.” The reason is that texting is a universal concept and its distractions are common everywhere with everybody. After looking at my data all my participants regardless their gender, religion, educational level or native language did indeed pick either option (A) or option (B) just like I predicted. Using Fisher’s exact test on gender, educational level, and L1 they all showed a significance (p=1) that establishes that there was no correlation between these attributes and the responses of the participants. Religion also showed no correlation (p=0.418).

Cartoon 7 is about a child answering a math question. My prediction in this cartoon was that the native English speakers would be familiar with this common term unlike native Arabic speakers and the others. I also predicted that gender and religion had no effect on what option the participants chose. However educational level might have an effect. I predicted that the less educated would pick option A: “The student is making an excuse for not knowing the answer,” whereas the more educated would choose option B: “We need to change some concepts to make life easier,” or option C: “There is not one only answer for a problem.” This was because options B and C were deeper in thought than Option A. To verify my prediction, I performed the Fisher’s exact test on my four attributes and they all revealed no correlation between the attributes and the responses. For gender the significance was p=1, for educational level the significance was p=0.7814, for religion the significance was p=0.3789 and for L1 the significance was p=0.4342. This proves that my prediction was not accurate.

Cartoon 8 was about ethnicity. My prediction in this cartoon was that both the native English speakers and the non-native English speakers would have chosen between
option A: “Differences among people should be more accepted” or option B: “Race and ethnicity can be a confusing topic.” That was because the topic of ethnicity and race and how one labels oneself especially if they were mixed race is very controversial anywhere in the world especially in the United States, because some races are not even represented in official documents. As for religion, educational level or gender, I didn’t think that these attributes affected what my participants chose. According to my data my participants did indeed pick between option (A) and (B) regardless any of their attributes and the Fisher’s exact showed no correlation across all attributes with the responses given. When testing gender the significance was $p=1$ with educational level the significance was $p=0.7935$, when testing religion the result was $p=0.1713$ and with native language the result showed $p=0.2613$.

Cartoon 9 was about cyber Monday. This cartoon is exclusively part of the American culture, therefore I predicted that the native English speakers would have chosen option A: “The man is more patient and suggests a more relaxed approach to shopping.” Such a concept is non-existent in other countries, so the non-native English speakers may probably have picked any one of the three options given. Additionally, I didn’t think that gender, religion, or educational level had any relationship with the options the participant chose. To verify my hypothesis, I performed the Fisher’s exact test across my four attributes and found that none of them had any correlation with the responses given to cartoon 9. When testing gender the score was $p=0.3851$, educational level showed a significance of $p=1$, religion a significance of 0.3336, and L1 a significance of $p=0.1584$. 
**Interpretation of results**

Starting my analysis from the top, the results showed that sections 1, 2, and 3 were not normally distributed and when tested across the four attributes all showed no difference except one. The only part where scores showed a difference was when section 2 was tested across religion. Therefore, I decided to take a closer look at the participants’ attributes by looking at the Excel sheet that I used in my statistical testing. I examined the total of section 2 and found out that more than half answered the 6 questions in this section correctly. The lowest number of correct answers was 3 and the highest was 6. There were two participants who scored 3 and they were both Muslim males one has a Bachelor’s degree and his L1 is Arabic and is from the Middle East. The other has a high school education, his L1 is other, and he is Asian. The second lowest score was 4 and there was only one participant who had that score in the total for section 2, and it was a Muslim female whose L1 is other, she has a Master’s degree and is Turkish. Beyond those three scores all the other participants scored between 6 or 5. So in this section the ones who had the lowest number of correct answers were all non-native English speakers and were Muslims. However, I didn’t want to stop here, so I decided to look at who scored 5 in the total of section 2, and I found that all of the participants were also non-native English speakers except one whose L1 is English but whose ethnic background is Arabic. The participants who scored 5 were spread across the three religions, three of them had their L1 as “other” and four had an L1 of Arabic. This shows that native language had a major effect on the way the participants interpreted the English expressions in section 2 maybe even more than religion as was shown in the statistical results. It was apparent that the native English speakers all interpreted the expressions
correctly simply because they were familiar with them, the only one native English
speaker who didn’t receive the maximum score was an Arab American. This could imply
that although one is born in the United States, if they come from a certain ethnic
background that did not fully integrate into the American culture, and maybe socialized
only with their own ethnic community, they could easily not understand some
mainstream American terms.

After covering sections 1, 2, and 3, I moved to section 4 which consisted of 9
cartoons. Here there is no correct or wrong answer, yet I did have my own predictions as
to how my participants were going to answer. Some were proven to be correct and others
were proven to be wrong.

In the first cartoon (designated driver), I predicted that native language and even
religion would have an effect. However, the results showed no correlations, based on the
p value in every case being higher than 0.05. Nevertheless, as I took a closer look at the
percentage of participants who picked option (C) I found that it was the highest and that
only one person (4.2%) in every category (gender, educational level, religion and native
language) picked option (B), and only two people (8.3%) in every category picked option
(A). It is clear that there was no correlation but it also shows that no matter the religion,
educational level, native language or gender, most participants picked the same
interpretation.

In the second cartoon (diversity), I predicted that native language was going to
have an effect on the participants’ choice, although the p-value showed no correlation, it
still displayed a very close call to a correlation. The results on the other hand showed that
gender had an effect which was not an outcome that I expected.

In the third cartoon (thinking outside the box) and the fourth cartoon (Indian girl),
educational level seemed to be the only attribute that had a correlation with the way the
participants chose their answers. The more educated a person is especially nowadays the
more knowledgeable one becomes about other cultures, idioms, and history which could
have helped my participants in associating the cartoons to some concept that they
acquired during their academic years that may have been triggered.

In cartoon 6 (texting) and cartoon 8 (ethnicity) my participants all picked equally
among two options, which I predicted. It was apparent that texting and the issue of
ethnicity are two concepts that have become universal in our present time. This made
everybody regardless of their religion, educational level, gender or native language, chose
the same interpretation because such concepts trigger the same ideas in their minds.
These ideas may have evolved from television, or the internet and are circulating amongst
people all over the world.

In cartoon 7 (math problem), the three options sounded applicable to me
personally depending how one looks at the cartoon. Option A where the student is
making an excuse for not knowing the answer seems like a valid interpretation since the
teacher is in the place of authority and the student is put under the spotlight to solve a
math problem on the board, he doesn’t know the answer, which makes the caption to the
cartoon humorous. Options B and C seem more like general statements not closely
related to the concept of a teacher and student in the classroom. It also does not carry
humor in it as option A does. As I looked closer at the percentages of participants who picked option A, I found that females chose it more often than males (respectively, 25.0% vs. 20.8%), participants who have a BA degree chose it most often (16.7%), while the ones who have a PhD degree chose option A least often (4.2%). I also noticed that in the religion category, Jewish participants had the highest percentage in picking option A (20.8%) where Muslims and Christians scored the same percentage (12.5%). As for native language, the native English speakers had the highest percentage (20.8%), native Arabic speakers came after (16.7%), and the others were last in choosing that option (8.3%). One might deduce that native English Jewish female speakers, who had a Bachelor’s degree in my sample, had the most sense of humor!

In the fifth cartoon (male domination), I predicted that religion was going to affect the way my participants chose their interpretation. Surprisingly, all of them picked the same option, which made me wonder whether people were completely honest with their choice or whether they picked option C because it sounded the safest and most civil interpretation from which nobody could be offended since the topic is controversial.

**Implications**

After looking at my findings and analyzing the results I can conclude that if any attribute had any effect although minimal, on my participants in this study, it was mostly educational level and native language. This implies that religion and gender had little to no effect on how my participants interpreted all four sections of the questionnaire. It also implies that in the present time, television, the internet, and social media have engulfed people from all over the world making it easy to become familiar with the American
culture even if one has never visited the United States. Since most of my sections reflect American culture, it was apparent from my findings that most participants scored well overall. Even in the Arabic expressions my participants seemed to have scored well overall which implies that they used their common sense to interpret the sayings rather than rely on the literal meaning of the words.

Looking onto the future, I can see the world as big as it is, become smaller. Social media has created its own melting pot with translation included to make it easy for everybody from all over the world to witness the creation of every new idioms, expression, story that is making waves and shaping our societies like “sexting.” We can already find expressions that are known worldwide and were born from social media like “Yolo” (you only live once), “Vlogging” (video blog) and “Flash mob” (when people gather through social media in a public place perform a pointless act for a few minutes then disperse). Social media is creating its own culture and its own lingua franca, that there will come a day in which there will be no expression that is really foreign anymore.

Suggestion for future research

This study didn’t show much correlation between the attributes that I was testing and the responses my participants gave. This outcome could have been different had the sample been much bigger. One suggestion for future research is to look for any interaction among the variables being tested with a substantially bigger sample. For example, one can test the interaction between language and educational level to see if native English speakers with PhD degrees versus native Arabic speakers with PhD degrees give different responses in section 1. Another suggestion for future research is to
include in the questionnaire expressions from other cultures like Indian, Chinese, or African and to collect an international sample. In other words, native Arabic speakers would be living in Arabic speaking countries and Chinese participants would be participating from China and native English speakers would be located in the inner circle countries. This way instead of gathering people from different cultures from within the United States, one can reach out to these different cultures from their original location. Such a study would give results that might be more reliable and effective in analyzing what really triggers meaning in people’s minds as they are exposed to an expression that is culturally foreign to them.

**Conclusion**

After going over all the different studies that other linguists have done in their pursuit to find out how L2 speakers understand utterances that are foreign to them, and after gathering my data and testing my participants and analyzing my findings, I came to believe that it all boils down to what is inside the human brain. Although educational level and native language may have had some effect in how my participants chose their answers, the main component that helped was their own common sense that was triggered by knowledge that was embedded in that brain as the participants were reading the expressions. If the study were around a real-life dialogue that the subjects were involved in as an experiment, then I would point out that the context would have had a major effect on how they interpreted the utterances. However, I still believe that what is inside the brain is what dictates how we understand things and act upon them. That’s why in SLA our curriculum should focus on the learners’ experiences and needs, and integrate hands-
on lesson plans, and task-based activities that mimic real-world contexts this way the learners can absorb the new input so it becomes part of their procedural memory. The more significant an experience is to us the more we can retain it, so SLA should focus on making learning a significant experience and technology and internet should be added to the mix because this is the real world we live in.
References


(http://en.wikipedia.org/wiki/Lay%27s)


(http://www.youtube.com/watch?v=LDXSXkYoM5Y)


Appendix A

Email used to recruit the participants

Hello dear professors, colleagues, students, and friends. You are invited to participate in the research project entitled, Understanding Humor, Expressions, Profanity, and Caricature in a Bilingual and Bi-Cultural Context that I am conducting for my Master’s thesis. The study will be conducted at the University of Toledo by myself, Nada Salem under the direction of Dr. Douglas W. Coleman my principle investigator. The purpose of this study is to investigate to what extent culture and identity can affect our understanding of expressions from a different culture but written in English. Another main purpose behind this study is to add an additional insight to second language acquisition in order to improve second language teaching strategies. This research study will take place primarily at the university of Toledo, and possibly stretch to the entire Toledo vicinity. The questionnaire will be a one session procedure and should take no more than 30 to 45 mins to finish.

After you have completed your participation, I will debrief you about the data findings of the study via email, and answer any questions you may have about the research. Before you decide to accept this invitation to take part in this study, you may ask any questions that you might have. You have the liberty to refuse to participate, even if you accept to participate then change your mind during the study. If you have any questions at any time before, during or after your participation contact a member of the
research team, Dr. Douglas W Coleman at 419-530-2514 or Nada Salem at 419-367-4446.

I will be anxiously awaiting your response if you wish to participate. Upon your approval, I will contact you to set up a meeting time to go over the consent form, and receive your signature.

Thank you in advance,

Nada Salem
Appendix B

Survey used for the research study

SURVEY QUESTIONS

8- Gender:

9- Religion:

10- Race and/or ethnicity:

11- Educational level:

12- First language:

13- Other language(s):

14- Rate your proficiency in your second languages in the box below. Circle one number from 1-5 for each language:

<table>
<thead>
<tr>
<th>Second Languages</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Thank you for your kind participation.

Nada Salem
Appendix C

Questionnaire used for the research study.

SECTION 1

Read the scenario and try to infer the meaning of the expressions. Pick one of the three options given.

Go tile up the sea.

Scenario: You are walking by in your neighborhood and you notice a couple enjoying their morning walk and conversing, as they pass by, you overhear one telling the other: "Go tile up the sea!" You think:

A) He wants his friend to go away and leave him alone.

B) He thinks his friend is suggesting something Impossible.

C) He is telling his friend to control himself.

2- Let the clay jugs break each other.

Scenario: You are at a gathering and as you are getting your drink from the bar you overhear someone telling his friend: "Let the clay jugs break each other." You think:

A) Let’s get really drunk.

B) Some people are disputing and arguing

C) An accident happened and people got hurt.
3- **On my head with my teeth being pulled.**

**Scenario:** In that same gathering, you get your drink and you keep walking towards a group of your friends, when you hear another pair conversing. One was telling the other: "On my head and the pulling of my teeth." You think:

A) The speaker is in a lot of pain.

B) The speaker is angry and wants to hurt someone.

C) The speaker is so happy and ready for anything.

4- **My house is on top of the fortress.**

**Scenario:** You are riding the car with your Lebanese friend, when he gets a phone call from his cousin in Lebanon. As he was Codeswitching between English and Arabic in his conversation, something gained your attention as you heard him say: "My house is on top of the fortress." You think:

A) Your friend wants a house away from people.

B) Your friend is very discouraged with his house.

C) Your friend is so content he feels his house is like a fortress protecting him from anything.
5- He is shooing flies.

**Scenario:** You ask your friend how his brother is doing these days and he tells you: "He is shooing flies." You think:

A) He wastes his time running around.

B) There’s nothing entertaining on TV and he’s bored.

C) All the women are always chasing after him.

6- A stick from every valley.

**Scenario:** You’re invited to a party, but your friend warns you to be ready because it’s going to feel like: ”A stick from every valley.” You think:

A) It’s going to be full of really boring people.

B) People from all over are coming to the party, it’s going to be crazy fun.

C) It’s going to be too crowded--- not fun at all.

**SECTION 2**

Read the scenario and try to interpret what the speaker means with his expression, pick one of the three options.

1- Is the pope Catholic.

**Scenario:** You made the most delicious looking cake, and you ask your American friend if he would like to have some. He replies: ”Is the pope Catholic?” You think:
A) He probably didn’t hear you well.

B) He doesn’t want cake and wants to change the subject.

C) He loves cake and cannot wait to eat some.

2- Silver sneakers.

**Scenario:** You want to go with your neighbor to the gym, and she tells you: ”It’s silver sneakers day!” You think:

A) Silver is on sale at the mall.

B) She’s a senior and you are a junior.

C) The class has started and she’s in a hurry.

3- See where I’m coming from?

**Scenario:** You are talking to your American colleague who seemed anxious and complaining about how little time she has for herself or for her work. Meanwhile she receives three phone calls from her kids who are fighting, and a long stressful phone call from her boss. As she hangs up she looks at you and says: ”See where I’m coming from?” You think:

A) She just came back from her house and left her kids there.

B) She is wondering if you understand her situation and mindset.
C) She wants to make sure you are familiar with the American culture and traditions.

4- Get outta here!

**Scenario:** You told your friend that you are throwing a party at your parents’ million-dollar pool house. She screams: “Get outta here!” You think:

A) She is mad and angry because she can’t make it.

B) She hates your pool house out of envy, and does not want to go to the party.

C) She is very excited about the party.

5- I don’t buy it.

**Scenario:** Two of your American friends are talking. One tells the other that he won $5000 in the lottery. The other told him: ”I don’t buy it.” You think:

A) He has no money to buy anything.

B) He doesn’t believe anything.

C) He has no interest to buy anything.

6- I hear you.

**Scenario:** You tell your colleague you can’t function well because you haven’t had your
A cup of coffee yet. Your colleague replies: ”I hear you.” You think:

A) He wants you to tell the story again because he likes it.

B) He heard this story before and does not want to hear about it again.

C) He heard you very well and understands what you are going through.

Section 3

Read the scenario and try to interpret what the brother and sister are trying to say to each other. Pick one of the three options.

Scenario: You are on your way to visit your American friend. You get there in the middle of a fight between him and his sister. All you could hear was one screaming at the other. While you are trying to understand what was going on, your friend yells: ”Son of a gun.” You think:

A) He regrets fighting.

B) He is frustrated.

C) He refuses to argue anymore.

The sister angry screams back: ”Shut the front door.” You think:

A) She is telling him not to talk to her anymore.

B) She wants him not to tell anyone what just happened.

C) She wants him to leave her alone.
Your friend leaves his house and you both head to your car. Your friend closes the car door on his foot by accident and screams: "sugar!" You think:

A) He is hurt and he is screaming.

B) He is hurt and calling his sister for help.

C) He wants to take his car instead.

After thinking hard about the fight, your friend felt bad and decided to call his sister. When she answered the phone she said: "Well, helicopter what the fudge hells bells."

You think:

A) She is still very angry.

B) She is fine and joking around.

C) She wants fudge to feel better.
Section 4

Examine the cartoons, and try to pick one interpretation that sounds the most logical to you that corresponds to the image. Pick one of the three options.

A) The success of a party depends on a lot of planning.

B) Designated driver is the name you give to the host of the party.

C) A successful party is one with no accidents.
“I need one Pepsi, one Coke, one 7-Up, one large coffee, one small coffee, one mint tea, one green tea, one iced tea, one orange juice, one bottled water, and one nonalcoholic fuzzy navel. They’re for our diversity committee.”

A) A committee that is diverse has a lot of people on it.

B) People from diverse background like different drinks.

C) People often misunderstand what diversity really is.
“THINKING OUTSIDE OF THE BOX IS DIFFICULT FOR SOME PEOPLE. KEEP TRYING.”

A) Some people are more creative than others.

B) Some people are arrogant about being more intelligent.

C) Uncreative thinkers are unhappy people.
A) The girl was hiding that she is an Indian.

B) People have stereotypes about how Indians look.

C) The boy is confusing Native Americans and people from India.
A) Women who must cover themselves are male-dominated.

B) Women who show their bodies are male-dominated.

C) Ideas about male-domination depend on your point of view.
A) All societies face problems with new technology.

B) People anywhere can be distracted if they let themselves.

C) Unsophisticated people should not try to use advanced technology.
“IN AN INCREASINGLY COMPLEX WORLD, SOMETIMES OLD QUESTIONS REQUIRES NEW ANSWERS.”

A) The student is making an excuse for not knowing the answer.

B) We need to change some concepts to make life easier.

C) There is not one only answer for a problem.
ETHIC ORIGIN? PUT ME DOWN AS MIXED RACE

A) Differences among people should be more accepted.

B) Race and ethnicity can be a confusing topic.

C) The man is wearing a horse costume as a joke.
A) The man is more patient and suggests a more relaxed approach to shopping.

B) Men know a lot more about shopping on-line than women.

C) The man is apologizing for making the woman go shopping alone.
Appendix D

Explanation of the expressions used in sections one, two, and three of the Questionnaire.

Section 1: Arabic expressions:

1. **Go tile up the sea:** One usually says it to someone else to show them one doesn’t care what they do because whatever they do will not change anything.

   So, the correct option to pick is option B: “He thinks his friend is suggesting something impossible.”

2. **Let the clay jugs break each other:** One says that when they don’t care what is going to happen next. No matter how bad it gets that person feels detached from the situation and cares less what will happen to others due to that situation.

   So, the correct option to pick is option B: “Some people are disputing and arguing.”

3. **On my head with my teeth being pulled:** One would say this expression to insinuate to someone else that they are willing to do anything they ask for. They just want to please them.

   So, the correct option to pick is option C: “The speaker is so happy and ready for anything.”

4. **My house is on top of the fortress:** One would say that if they feel that they are on top of the world, and nothing can bother them.
So, the correct option to pick is option C: “Your friend is so content he feels his house is like a fortress protecting him from anything.”

5. **He is shooing flies:** One would say that about someone else to indicate that the person is lazy and has no ambition.

   So, the correct option to pick is option A: “He wastes his time running around.”

6. **A stick from every valley:** This expression usually means that there is chaos, and things or people all over the place.

   So, the correct option to pick is option: “People from all over are coming to the party, it’s going to be crazy fun.”

---

**Section 2: English expressions:**

1. **Is the Pope Catholic?** We say this expression to indicate that what we are saying is obvious and no one should doubt it.

   The correct option to pick is C: “He loves cake and cannot wait to eat some.”

2. **Silver sneakers:** This expression refers to the senior citizens or adults 60 years and older. Silver refers to the gray hair, and sneakers refers to the tennis shoes of a typical American senior citizen.

   The correct option to pick is B: “She’s a senior and you are a junior.”

3. **See where I’m coming from?** This expression is used when someone in a conversation is telling the other party:” You understand the situation I am in?”
The correct option to pick is B: “She is wondering if you understand her situation and mindset.”

4. **Get otta here!** A person who says that in the midst of a conversation with someone else, means that they playfully don’t believe what the other person is saying.

The correct option to pick is C: “She is very excited about the party.”

5. **I don’t buy it:** when one says that to someone else they are having a conversation with, they mean that they don’t believe what that person is telling them. Or that they think there something fishy about it.

The correct option to pick is B: “He doesn’t believe anything.”

6. **I hear you:** If two people are conversing and one says that to the other, they usually mean that they understand what the other is feeling because they have been in the same or a similar situation before.

The correct option to pick is C: “He heard you very well and understands what you are going through.”

---

**Section 3: English Profanity and Vulgarity expressions or words:**

1. **Son of a gun:** Son of a “bitch”

   The correct option is B: “He is frustrated.”

2. **Shut the front door:** Shut the “fuck” up.
The correct option is A: “She is telling him not to talk to her anymore.”

3. **Sugar**: “Shit”

The correct option is A: “He is hurt and he is screaming.”

4. **Well, helicopter what the fudge hells bells**: This a series of expressions put together. **Helicopter**: Is a full-blown temper tantrum characterized by throwing oneself onto the floor and violently flailing their limbs kicking and screaming. It is also a sexual position.

**Fudge**: Word used instead of “fuck” or “shit”.

**Hells bells**: Exclamation along the lines of “darn”, a variation of “hellfire” and reinforced by its rhyme.

The correct option to pick is option A: “She is still very angry.”
ADULT RESEARCH SUBJECT - INFORMED CONSENT FORM

Understanding Humor, Expressions, Profanity, and Caricature in a Bilingual and Bi-Cultural Context.

Principal Investigator: Professor Douglas W. Coleman. FH 1650; 419.530.2514
Student Researcher: Nada Salem

Purpose: You are invited to participate in the research project entitled, Understanding Humor, Expressions, Profanity, and Caricature in a Bilingual and Bi-Cultural Context, which is being conducted at the University of Toledo by Nada Salem under the direction of Dr. Douglas W. Coleman. The purpose of this study is to investigate to what extent culture and identity can affect our understanding. Another main purpose behind this study is to help improve second language teaching.

Description of Procedures: This research study will take place primarily at the university of Toledo, and possibly stretch to the entire Toledo vicinity. The questionnaire will be a one session procedure and should take no more than 30 to 45 mins to finish.

After you have completed your participation, a member of the research team will debrief you about the data, theory and research area under study and answer any questions you may have about the research.

Potential Risks: There are minimal risks to participation in this study, including loss of confidentiality.

Potential Benefits: The only direct benefit to you if you participate in this research may be that you will learn about how bilingualism and bi-culturalism can affect one’s understanding and may learn more about how you as a bilingual participant exposed to expressions in your second language would be able to interpret them. Others may benefit by learning about the results of this research.

Confidentiality: The researchers will make every effort to prevent anyone who is not on the research team from knowing that you provided this information, or what that information is. The consent forms with signatures will be kept separate from responses, which will not include names and which will be presented to others only when combined
with other responses. Although we will make every effort to protect your confidentiality, there is a low risk that this might be breached.

**Voluntary Participation:** Your refusal to participate in this study will involve no penalty or loss of benefits to which you are otherwise entitled and will not affect your relationship with The University of Toledo or any of your classes. In addition, you may discontinue participation at any time without any penalty or loss of benefits.

**Contact Information:** Before you decide to accept this invitation to take part in this study, you may ask any questions that you might have. If you have any questions at any time before, during or after your participation or experience any physical or psychological distress as a result of this research you should contact a member of the research team, Dr. Douglas W Coleman at 419-530-2514 or Nada Salem at 419-367-4446.

If you have questions beyond those answered by the research team or your rights as a research subject or research-related injuries, the Chairperson of the SBE Institutional Review Board may be contacted through the Office of Research on the main campus at (419) 530-2844.

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

**SIGNATURE SECTION – Please read carefully**

You are making a decision whether or not to participate in this research study. Your signature indicates that you have read the information provided above, you have had all your questions answered, and you have decided to take part in this research.

The date you sign this document to enroll in this study, that is, today's date must fall between the dates indicated at the bottom of the page.

<table>
<thead>
<tr>
<th>Name of Subject (please print)</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of Person Obtaining Consent</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

This Adult Research Informed Consent document has been reviewed and approved by the University of Toledo Social, Behavioral and Educational IRB for the period of time specified in the box below.

Approved Number of Subjects:
Appendix F

Original excel sheet representing all the participants in the sample, their attributes, and their answers to the questionnaire.

```r
mydata <- read.csv("C:/Users/10744/Desktop/thesis.data.csv", header=TRUE)
edit(mydata)
```

<table>
<thead>
<tr>
<th>#</th>
<th>Participants</th>
<th>Gender</th>
<th>Religion</th>
<th>Ethnicity</th>
<th>Education</th>
<th>L1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>none</td>
<td>M</td>
<td>J</td>
<td>Caucasian</td>
<td>PhD</td>
<td>E</td>
</tr>
<tr>
<td>2</td>
<td>Korean</td>
<td>F</td>
<td>C</td>
<td>South Korean</td>
<td>PhD</td>
<td>E</td>
</tr>
<tr>
<td>3</td>
<td>Arabic</td>
<td>M</td>
<td>M</td>
<td>Middle Eastern</td>
<td>Ma</td>
<td>E</td>
</tr>
<tr>
<td>4</td>
<td>Japenese</td>
<td>F</td>
<td>C</td>
<td>Caucasian</td>
<td>Ma</td>
<td>E</td>
</tr>
<tr>
<td>5</td>
<td>none</td>
<td>F</td>
<td>J</td>
<td>Caucasian</td>
<td>Ba</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Arabic</td>
<td>M</td>
<td>M</td>
<td>Arab</td>
<td>Ba</td>
<td>E</td>
</tr>
<tr>
<td>7</td>
<td>none</td>
<td>M</td>
<td>J</td>
<td>Caucasian</td>
<td>HS</td>
<td>E</td>
</tr>
<tr>
<td>8</td>
<td>Urdu</td>
<td>F</td>
<td>M</td>
<td>Pakistan</td>
<td>HS</td>
<td>E</td>
</tr>
<tr>
<td>9</td>
<td>English</td>
<td>M</td>
<td>C</td>
<td>Middle Eastern</td>
<td>PhD</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>English</td>
<td>F</td>
<td>M</td>
<td>Middle Eastern</td>
<td>PhD</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>Hebrew</td>
<td>M</td>
<td>J</td>
<td>SouthAfrica</td>
<td>Ma</td>
<td>A</td>
</tr>
<tr>
<td>12</td>
<td>English</td>
<td>F</td>
<td>C</td>
<td>Middle Eastern</td>
<td>Ma</td>
<td>A</td>
</tr>
<tr>
<td>13</td>
<td>English</td>
<td>M</td>
<td>M</td>
<td>Middle Eastern</td>
<td>Ba</td>
<td>A</td>
</tr>
<tr>
<td>14</td>
<td>English</td>
<td>F</td>
<td>J</td>
<td>Caucasian</td>
<td>Ba</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15</td>
<td>M</td>
<td>C Middle Eastern</td>
<td>HS</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>F</td>
<td>M</td>
<td>Caucasian</td>
<td>HS</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>M</td>
<td>J</td>
<td>Caucasian</td>
<td>PhD</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>F</td>
<td>C</td>
<td>European</td>
<td>PhD</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>M</td>
<td>J Middle Eastern</td>
<td>Ma</td>
<td>O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>F</td>
<td>M</td>
<td>Turkish</td>
<td>Ma</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>M</td>
<td>C</td>
<td>Asian</td>
<td>Ba</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>F</td>
<td>J</td>
<td>Caucasian</td>
<td>Ba</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>M</td>
<td>M</td>
<td>Asian</td>
<td>HS</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>F</td>
<td>C</td>
<td>European</td>
<td>HS</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sec.1_1</th>
<th>Sec1_2</th>
<th>Sec1_3</th>
<th>Sec1_4</th>
<th>Sec1_5</th>
<th>Sec1_6</th>
<th>Sec2_1</th>
<th>Sec2_2</th>
<th>Sec2_3</th>
<th>Sec2_4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>A</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Sec2_5</td>
<td>Sec2_6</td>
<td>Sec3_1</td>
<td>Sec3_2</td>
<td>Sec3_3</td>
<td>Sec3_4</td>
<td>Sec4_1</td>
<td>Sec4_2</td>
<td>Sec4_3</td>
</tr>
<tr>
<td>---</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>##</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>14</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>16</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>17</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>18</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>19</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>20</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>21</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>22</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>23</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>24</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Sec4_5</td>
<td>Sec4_6</td>
<td>Sec4_7</td>
<td>Sec4_8</td>
<td>Sec4_9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>C</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>C</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>