Pragmatic Comprehension of English Refusals by Spanish-English Bilinguals

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PRAGMATIC COMPREHENSION OF ENGLISH REFUSALS
BY SPANISH-ENGLISH BILINGUALS

Submitted to the Graduate Faculty of the
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Agricultural and Mechanical College
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by

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This dissertation is dedicated to my children Diego Jose and Maria Gabriela, the light of my life; to my students, my inspiration; and to my country, Venezuela, hoping that you overcome these dark times.
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ABSTRACT

This study investigated the pragmatic comprehension and production of the speech act of refusals in English by a group of Spanish-English bilinguals (SEB) in comparison with native English speakers (NES), taking into account variables such as length of residency in the L2 environment, type of refusals and level of politeness. Other variables explored included speed of lexical access and working memory. SEB who learned English as adults were divided into two groups (short, long) according to their length of residency in an English language environment. All participants performed a Pragmatic Listening Task (PLT) and an oral production task both involving four types of refusals at three levels of politeness, as well as tasks related to working memory and speed of lexical access, and completed a language contact survey. Results showed that across groups the easiest types of refusal to comprehend were direct refusals, and indirect refusals with upgraders, followed by indirect refusals with downgraders, in turn followed by implicatures. SEB of both lengths of residency did not differ from NES in the comprehension of direct refusals and indirect refusals with upgraders, but SEB with short residencies had poorer comprehension than the NES on indirect refusals with downgraders and implicatures. Politeness systems affected comprehension of indirect refusals with downgraders and implicatures. NES were faster than both SEB groups across all refusal types, and direct refusals were comprehended faster than indirect refusals with downgraders, which in turn were comprehended faster than implicatures; indirect refusals with upgraders were also comprehended faster than implicatures. Production showed all groups mostly produced direct refusals. In addition, the SEB used indirect refusals with downgraders more frequently than the NES. In terms of cognition, NES were faster in lexical access and had better working memory than both SEB groups. For SEB with shorter residency, the faster their lexical access speed, the better their
comprehension of indirect refusals with upgraders and implicatures and the higher their working memory, the better their comprehension of indirect refusals with upgraders. Thus, L2 learners are eventually able to master the pragmatics of refusals, but initially struggle with the more difficult types.
CHAPTER 1
LITERATURE REVIEW

1.1. Introduction

Pragmatic competence involves the knowledge of the rules of conversation, the linguistic forms and recognition of the intention of the speaker, as well as applying that knowledge when using and interpreting the language according to contextual and social circumstances (Bachman, 1990; Bialystok, 1993; Barron, 2001; Canale & Swain, 1980). This is a complex task for adult second language (L2) learners. Cognitive theories such as Bialystok’s Two-dimensional Model and Schmidt’s Noticing Hypothesis claim that for pragmatic processing L2 learners need to notice and be aware of the new pragmatic structures since they already bring a full pragmatic system from their first language (L1). Research on L2 pragmatics has primarily focused on how learners master the realization patterns of speech acts (Blum Kulka, 1984), transfer features from the L1, and develop their pragmatic system. There is, however, still need for research on L2 pragmatic comprehension which analyzes not only the accuracy but also the speed of processing.

Speech acts as the main aspect—and the most researched one—in pragmatics allows us to observe the pragmatic behavior of L2 speakers across languages. Refusals are a speech act with special characteristics that have been studied in various languages. (Japanese and English: Beebe et al., 1990; Gass & Houck, 1999; Spanish: García, 1992, 1999; Spanish and English: Félix-Brasdefer, 2002, 2003, 2004, 2008, 2009; VonCanon, 2006; Chinese: Chen, Ye & Zhang, 1995; Chinese and English: Chang, 2009; Thai: Wannaruk, 2008, Persian and Kurdish: Aliakbari & Changizi, 2012; Greek: Bella, 2010; Iranian and English, Allami & Naeimi, 2011). Among those characteristics, refusals have a cultural load in their structure; speakers should not only have the linguistic knowledge of the words to use but also know the sociocultural rules for the
refusal behavior of that context (Beebe et. al, 1990, García, 1999, Gass & Houck, 1999); that is, they require a high level of pragmatic competence (Félix-Brasdefer, 2004), and their content can vary according to the speech act that elicits them—invitation, request, offer or suggestion (Beebe et. al, 1990).

Researchers have mostly paid attention to how L2 learners produce refusals and transfer features from their L1, but little research has focused on the comprehension of refusals. Taking this into consideration, this dissertation investigates the pragmatic comprehension of the speech act of refusals by bilingual speakers of English and Spanish who have been living in an English-speaking environment for different periods of time compared to monolingual native speakers of English. In addition, pragmatic comprehension of refusals will be related to their production and other factors that intervene in this process, such as length of residency in the target language environment, speakers’ self-rated proficiency, degrees of politeness, and amount of language contact. Results are expected to show how bilingual speakers process pragmatic cues less accurately and more slowly than native English speakers, but produce them following the native speaker pattern. Among the reasons explaining these results is the length of residency, the type of refusal and cognitive processing.

1.2. Literature review

The literature review contained here is divided into five main segments. The first segment presents an overview of pragmatic competence and pragmatic comprehension including second language (L2) pragmatic processing. Bialystok’s model of pragmatic acquisition (Bialystok, 1990; 1993) is discussed, and studies that analyze pragmatic comprehension from a psycholinguistic viewpoint are reviewed. The second segment describes Speech Act Theory. It points out a few of the most renowned studies developed under this theory and describes
directness. The third segment describes politeness and its relation to speech acts, and its resulting in a classification of politeness systems by Scollon and Scollon (2001) where power difference and distance between participants are explained. The fourth section provides a detailed view of the speech act of refusing. It explains how researchers have classified the performance of the refusing act according to the strategies by and negotiation between speakers, and how speakers from different languages and cultures vary in their performance of refusals. This part highlights the main studies that have investigated refusals across languages from different perspectives and with different methodologies and that are crucial references for this study. Finally, the fifth segment discusses variables that affect the speech act performance, such as language contact, length of residency, and cognitive variables—working memory and lexical access.

1.2.1. Pragmatic Competence

Pragmatics has to do with the use of language in actual conversations, and with how the individual takes context into account to obtain the correct meaning (Bergman, Hall & Ross, 2007) and produce an utterance.

Within the linguistics field, the concept of Communicative Competence (Hymes, 1972) was developed with the intention to incorporate the sociocultural rules (Barron, 2001) and contextual values to the knowledge of the grammatical rules proposed by Chomsky1. The concept was further defined by Canale and Swain (1980) as being composed of three parts: (1) grammatical competence, which is related to linguistic aspects such as syntax, phonology, semantics, etc., (2) sociolinguistic competence, which refers to producing or recognizing language properly in context, and (3) strategic competence, the strategies used to make

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1 Chomsky’s transformational generative grammar divided linguistic theory in two parts: linguistic competence, for the not conscious knowledge of the language, and linguistic performance, related to the processes of encoding and decoding (Hymes, 1972).
communication more effective or to compensate the lack of knowledge of the language. Pragmatics was included within the sociolinguistic competence frame. Pragmatic competence, thus, advocated for the relationship between “the language users and the context of communication” (Bachman, 1990, p. 89), including the speech acts and functions of language and its appropriate use in a specific situation. An individual acquires pragmatic competence when he knows the linguistic forms and their function in a context, also when he recognizes and interprets the speaker’s intention in social interactions.

1.2.1.1. Pragmatic Competence in L2 learners

The concept of pragmatic competence for L2 learners has been investigated under the Interlanguage (IL) framework. Interlanguage Pragmatics (ILP) is defined as the branch that “studies how nonnative speakers understand and carry out linguistic action in a target language, and how they acquire L2 pragmatic knowledge” (Kasper, 1992, p. 203). In the initial decades, the focus of ILP research was mainly to compare cross-cultural pragmatic knowledge between the L1 and the L2, or to compare grammatical competence with pragmatic competence. This was done by borrowing methodology from empirical pragmatics to collect and analyze data. Later, for many years, research in ILP has been oriented towards the production of specific speech acts or functions of language, that is, language use. Under this framework, two models of pragmatic cognitive processing emerged in the early 90’s, Schmidt’s Noticing Hypothesis (Schmidt, 1993) and Bialystok’s two-dimensional model of pragmatic acquisition (Bialystok, 1993). Schmidt’s Noticing Hypothesis is oriented towards the learner’s conscious acquisition of pragmatics. That is to say, the learner only acquires the pragmatic competence when he notices or has the awareness of the new pragmatic features. This way the input becomes intake. Bialystok’s two-dimensional model, on the other hand, differentiates the acquisition of
pragmatics between child’s L1 and adult L2 learners. She argues that, unlike children and their L1, adult learners of an L2 already have an L1 pragmatic system developed. This forces the learner to not only (1) acquire the new knowledge and understanding of the L2 pragmatic features, especially pragmalinguistic, defined as the speaker’s communicative attempts correctly chosen regarding the grammatical formula as well as the pragmatic strategies (the use of directness or indirectness), routines (e.g. “What do you mean?” for clarification) and modification devices (e.g. “Could you possibly..? for requesting) (Barron, 2001), but also (2) control their attention between the knowledge available in their L1 and the one being acquired in L2. That is to say, learners might have some L2 pragmatic knowledge, but still provide the incorrect utterances because they cannot access it quickly enough when they need it. In addition, even if they learn the new pragmalinguistic norms and their social use, they can still take longer to process and utter the actual linguistic forms (Taguchi, 2005; 2008a, 2011). Thus, these two models address the issue of pragmatic acquisition at different stages of the IL. The first one, Schmidt’s, at an earlier stage, and the second, Bialystok’s model, focuses on later stages of acquisition. This dissertation work will focus mostly on Bialystok’s model since interest is on adult second language learners, specifically adult bilinguals who have lived for a period of time in the L2 environment.

1.2.1.2. Pragmatic comprehension

Attention to the pragmatic acquisition of L2 speakers has led to the study of the pragmatic comprehension in recent years. Research on pragmatic comprehension has based its interests on analyzing the accuracy and speed of comprehension of diverse pragmatic structures - (e.g. indirect utterances, implicatures). Studies have measured the comprehension of pragmatic structures (Koike, 1996; Garcia, 2004) and implied meaning through real conversations
(Taguchi, 2005; 2007; 2008a; 2008b), although not in a full conversational context, and have examined the effect on comprehension by other variables such as language contact, proficiency, and cognitive factors (e.g. working memory capacity, lexical access).

One of the first studies in pragmatic comprehension was done by Koike (1996) who examined the speech act of suggestions with foreign language learners of Spanish at different levels of proficiency. In this study, native speakers of American English had to recognize suggestions aurally in Spanish from a short video which showcased a speech sample by a native speaker. Immediately after watching each video, they had to respond to a three-question-survey about it. They had to respond to the question asked, identify it and try to reproduce the type of speech act as it was expressed by the native speaker; then evaluate the attitude or mood of the native speaker.

Koike’s results were focused mostly on the transfer of L1 speech act knowledge into the FL speech act; she found that there was transfer from each group but to different degrees. That is to say, in general, more advanced students were better at understanding the speech act intent, as they had better listening comprehension than lower level students. This occurs “even when the utterances are formulated in the same way in both languages” (p. 275). Although not in all cases, advanced students had the proficiency to understand the discourse in context, especially larger units. A second type of transfer that was observed in the study was that of listening comprehension skills. More advanced participants monitored the input they received and, when reproducing the speech act, if the structure or lexicon heard matched the one of the L1, they would still make incorrect hypotheses and transfer their L1 knowledge into the foreign language situation.
In a later study, Garcia (2004) studied the comprehension of pragmatic structures and implicatures under a listening comprehension task in which English language learners (from different countries) of two different proficiency levels had to respond to a multiple choice test with language questions and to the speech act of requesting (e.g. …they are charging wrongly for the whole room, the man says: “Oh, OK that’s not right. I got to get that fixed”. Question: What is another way for the man to say this? Correct answer: Please help me fix this problem…) and then conversational implicature items. To determine proficiency, 35 participants were divided according to their average time present in the L2 environment and placed into a high (average of 20 months and graduate students) or low (5 months and undergraduate students) group accordingly. They responded to the task by filling out an answer sheet. Results showed that the high level group outperformed the low level group in all categories. Also, there was a significant correlation between linguistic comprehension and pragmatic comprehension for the high level group. In addition, results showed significant correlations between linguistic comprehension and comprehension of speech acts and comprehension of implicatures.

Similarly, in a series of studies done with computerized listening tasks, Taguchi (2005; 2007; 2008a; 2008b; 2011) sought to test pragmatic comprehension of implicatures. In these tasks, dialogs with pragmatic content that concluded with a question were presented in audio form to the participants. Subjects were expected to answer the question via the computer immediately after the question was posed. These tests measured participants’ accuracy and comprehension speed. In these studies, other psycholinguistic variables such as working memory, lexical access and general cognitive processing skills were measured. A more detailed description of these studies will be summarized below.
Taguchi (2005) used a computerized listening task to measure pragmatic comprehension and comprehension speed in learners of English as a Foreign Language (EFL), native speakers of Japanese. Her purpose was to determine if L2 proficiency affected comprehension of implied meaning in spoken dialogues in terms of accuracy and speed of comprehension. The author used 160 Japanese EFL learners in Japan and 46 native English speakers at a university in the United States. The Japanese speakers were at different L2 proficiency levels. Proficiency was determined by the institutional TOEFL. Participants were tested via a computerized listening task with 32 items (dialogs) that measured two types of more conventional implicatures (MCI) since language use forms are available to the speaker; these took the form of indirect requests as in: A: *Do we have time to go over my paper?* B: *Do you mind if we talk about it tomorrow?* and indirect refusals such as in: A: *Let’s go to the movies tonight.* B: *I have to finish my paper by eight in the morning.* In addition, two types of less conventional implicatures (LCI) were used, that is to say, more idiosyncratic; these were negative implied meaning as in: A: *How was the wedding? I bet it was exciting.* B: *Well…the cake was OK,* and nonnegative implied meaning such as in: A: *Do you like the people upstairs?* B: *We’re always visiting each other.* The tests measured participants’ accuracy through a multiple-choice test.

Results suggested that comprehension of LCI was more difficult and took longer than MCI for Japanese speakers; this did not occur with native speakers. Comprehension of refusals was better than requests for both groups. However, refusals were more slowly comprehended than requests by native speakers and faster by L2 learners. Native speakers’ accuracy and speed of comprehension was uniform. However, no significant correlation was found between comprehension scores and comprehension time among L2 learners. Also, there was a significant L2 proficiency effect in accuracy of comprehension for both conventional categories, but not for
comprehension speed. This implies that speed of comprehension is independent of proficiency in pragmatic knowledge. The author states that working memory might have been overloaded due to the task’s aural nature. However, she justifies this by explaining that as proficiency develops, learners may learn to direct attention to the information that is relevant and retain it, thus improving comprehension accuracy.

The computerized Pragmatic Listening Task (PLT) was also used to analyze the development of speed and accuracy of pragmatic comprehension of EFL—English in a foreign environment (Taguchi, 2007; 2008b, 2011) and ESL—English in a native speaking environment (2008a) students. This time, after the short conversation, the PLT ended in a yes/no question for the speaker to respond to. In addition, the relationship of pragmatic comprehension to cognitive variables such as working memory and semantic access was studied.

For the first study (Taguchi, 2007), 92 Japanese speakers and 20 English speakers took the PLT as a pretest and posttest over a seven-week period. They were freshman students in an intensive English program in a university in Japan. Implied meaning was measured through refusal items and opinion items. In this study, there were additional measures taken with the purpose of establishing relationships between pragmatic comprehension ability with general L2 proficiency and lexical judgment speed. The measures were: the institutional TOEFL, administered at the beginning and at the end of the testing period, and a word recognition task. Results indicated that comprehension accuracy and comprehension speed improved over this period. Also, significant relationships between proficiency and accuracy and between speed of lexical access and speed of comprehension were shown. However, accuracy and lexical access speed were not found to be related and neither were proficiency and comprehension speed. The
author concluded that the development of pragmatic knowledge in an L2 does not necessarily coincide with the lexical access for using this knowledge.

Later, in a longitudinal study, Taguchi (2008a) analyzed the pragmatic competence of 44 Japanese English as a Second Language (ESL) learners. They were beginner students in an intensive English program in the U.S. She focused the study on the comprehension of nonliteral, indirect utterances. The purpose was to determine if there were gains in accuracy and speed of comprehension of implied meaning over a period of four months and/or gains related to cognitive processing ability and the amount of language contact outside the class in the ESL context. Participants were students in an Intensive English Program and received instruction on academic language but no specific instruction on pragmatic skills or rules. The computerized PLT tested two structures: refusals (to invitations, requests, suggestions and offers) and opinions and was administered 3 times during the 4-month-period. The researcher also used a word recognition task (the same as in the previous study) to seek relationships between pragmatic comprehension and cognitive processing skills. Finally, the author used a Language Contact Survey, to document the learners’ language history and language use in the context of their learning, specifically the amount of outside class contact with the target language input and use.

Results showed that, in general, comprehension accuracy showed little improvement over a 4-month period of ESL studies in the U.S. In addition, there was a difference in development of accuracy and comprehension speed. The comprehension of more conventionalized items (refusals) developed more quickly over time, along with the development of general listening ability. Similarly, after 4 months in the target language community, participants still had difficulty comprehending nonconventional types (opinion) of implied meaning. The author explains this as the fact that the L2 context did not provide much practice for the processing
required for the comprehension of indirect opinions; thus, this is not guaranteed by the context. Participants in the experiment became faster in lexical access. It was not related to accuracy of comprehension, but it was related to comprehension speed. Language contact was likewise not related to comprehension accuracy but it was to speed of comprehension.

In another study, but with EFL students, Taguchi (2008b) reexamined the relationship between pragmatic comprehension and lexical access, and added the working memory skill. She also tested the general listening abilities of learners. For this study, the author selected 35 Japanese student learners of English as a Second Language at a beginner level of proficiency. They performed five tasks: (1) a PLT (the same as Taguchi, 2008a) with indirect refusal and indirect opinion items; two listening tasks: (2) a phonemic discrimination test: contrasting two similar sounds in the same position within sentences, and (3) a listening section of the institutional TOEFL; and two cognitive tasks: (4) a working memory test: the Reading Span Test, and (5) a lexical access test: where they had to establish judgments of living or nonliving objects in pictures (as in Taguchi, 2008a).

As in the previous studies with this methodology, the researcher found that there was no relationship between accuracy and speed of comprehension. However, comprehension of indirect refusals was easier and took a shorter amount of time than the comprehension of indirect opinion, perhaps due to their more conventional nature since they present routinized patterns such as giving a reason for refusal. Working memory had no relationship with comprehension ability or speed of comprehension. However, lexical access speed was related to the speed of comprehension but not with accuracy. That means that learners who were able to process word meaning quickly were more likely to provide an accurate answer to the scenario.
In the last study reviewed for this work, Taguchi (2011) investigated the effect of L2 and study-abroad experience on pragmatic comprehension. In this experiment, the researcher interviewed 25 NES and 64 native Japanese students of EFL. Their proficiency levels were divided according to their scores in the TOEFL exam, group 1, first semester students and groups 2 and 3 upper-level students. Group 2 had no experience abroad and group 3 had 1 year of experience abroad. The PLT was given in a multiple-choice version, and analyzed conventional implicatures (indirect refusals and routines) and nonconventional implicatures. Results showed that native speakers were uniform and accurate in all item types, while all EFL groups had lower accuracy and longer times in comprehension of nonconventional implicatures. In addition, there was an advantage of the study-abroad experience on the comprehension of nonconventional implicatures and routine expressions, but not on refusals. Similarly, an effect of proficiency on response times was found but not within the study-abroad group.

In this series of studies, Taguchi (2005; 2007; 2008a; 2008b, 2011) focused on measuring the pragmatic comprehension of implied meaning through short conversations and combined this comprehension with other elements that helped her come to various conclusions. Among these, language proficiency had an influence on pragmatic comprehension accuracy (2005, 2007) but not on speed of pragmatic comprehension (2005). In addition, pragmatic comprehension and speed of pragmatic comprehension might be related (2005, 2008a, 2008b) or not (2007); length of residence had mixed results as well; it significantly predicted pragmatic performance in a 7-week-EFL study (2007), but it did not in a 4-month-ESL study (2008a). In the latter case, the development of comprehension did not benefit from spending time in the target environment probably because participants “did not take advantage of the everyday inferential practice” (p. 53) and thus the L2 context did not provide many opportunities to practice the tested structures.
Regarding speed of comprehension, results changed depending on the variable they were related to. For instance, it varied depending on the difficulty of the item; the more conventional items (i.e. less implied) were more quickly comprehended. In addition, these studies showed that L2 learners might improve accuracy over time but not necessarily speed; although more proficient, they might still take longer than native speakers to process a listening task. Similarly, the speed with which an L2 learner accessed lexical items was directly related to his/her speed of comprehension but not to his/her accuracy (Taguchi, 2008a, 2008b). Variables such as working memory proved to have no relationship with comprehension ability or the speed of comprehension.

The methodology presented by Taguchi in her studies is innovative and of great relevance for the fields of pragmatics and psycholinguistics. Besides analyzing the production of speech acts by second language learners, their processing should be of interest for researchers. The methodology presented by this author inspired the one chosen for this study since it analyzes pragmatic comprehension and its relation to other variables with an instrument that was well developed and used consistently and invites analysis of the same variables with a different population and a narrower focus on a pragmatic structure.

1.2.2. Speech act theory

In the pragmatics field, the Speech Act Theory emerged in the 1960s as a result of the linguists’ need to clarify or explain the actions, or meaning, that utterances conveyed and that semantics could not explain by itself. That is to say, language is not produced only in the speaker's mind but when it is actually used and has an intention. Austin’s (1962) work on speech acts and Searle’s (1969) systematization of this work had the strongest influence in the field of pragmatics. Austin (1962) proposed the idea of performatives, which are the sentences or
utterances that, once uttered, represent the performing of an action. That is to say, in the appropriate circumstances, a sentence like “I name this ship Queen Elizabeth” means that the person is actually carrying out the action via the words used (Austin, 1962, p. 5). It is not talking about the action, but actually doing the action. The speaker’s communicative intention is stressed with the insertion of the word hereby (e.g. I hereby name this ship Queen Elizabeth). That is to say, if one can insert hereby before the speech act verb, the utterance is a performative. Austin stated that every speech act is composed of three parts (or elements): the locutionary act, the illocutionary act and the perlocutionary act. The locutionary act is the utterance actually articulated by the speaker, which makes sense and is comprehensible in the language. The illocutionary act is the ultimate action that represents the communicative intent of the speaker (Saeed, 2009). The perlocutionary act is the reaction of the listener to the illocutionary act, the effect the speech act has on the hearer. The illocutionary act is considered the most important of the three elements since it carries the information to be communicated, and is sometimes used synonymously with the term Speech Act (Saeed, 2009). Under normal conditions, as mentioned above, the speaker expects that the hearer knows what he/she means with his/her locutionary act (the act of producing the utterance); however, there might be different illocutionary forces for any particular speech act. Yule (2002, p. 49) illustrates this in the example: I’ll see you later, which could mean: 'I predict that I’ll see you later', 'I promise you that I’ll see you later', or even 'I warn you that I’ll see you later'.

Austin (1962) proposed a taxonomy of speech acts which, in a later document, Searle (1976) criticized claiming (among other reasons) that it referred mainly to a classification of illocutionary verbs, some of which were not even verbs, and that there was “no consistent principle of classification” (p.10). Searle (1976) organized speech acts in five main categories:
representatives, which commit the speaker to the truth of the expressed proposition (e.g. asserting, concluding, informing, predicting, stating) (Saeed, 2009); directives, which serve as an attempt of the speaker to have the listener do something (e.g. requesting, questioning, asking, commanding, pleading); commissives, in which the speaker commits himself/herself to do or perform some future action (e.g. promising, vowing, pledging, contracting, embracing, swearing, offering, threatening, refusing); expressives, which express a psychological state (thanking, apologizing, welcoming, congratulating, complimenting, praising); and declarations, which “effect immediate changes in the institutional state of affairs” (p. 239, Saeed, 2009), and involve extralinguistic institutions in which the speaker and hearer have a role, such as a priest in a baptism (e.g. declaring war, christening, marrying, declaring, appointing, adjourning).

Speech acts can be direct or indirect. A speech act is direct when a performative verb represents the intention of the speaker, that is, a verb with the literal meaning of the locutionary act (e.g. I promise to call you tonight). This direct speech act is, according to Searle (1975), the simplest case of meaning. In the event that the illocutionary act of an utterance has a different, or nonliteral, meaning (e.g. Could you open the window?), the speech act is indirect; that is to say, the utterance has two illocutionary intents that the speaker intends for the hearer to recognize based on “their mutually shared background information, both linguistic and nonlinguistic” (p. 60, Searle, 1975). Likewise, Searle states that there must be “an ability on the part of the hearer to make inferences” (p. 61).

There are degrees of indirectness among speech acts. Indirectness can be of two types, conventional and non-conventional. Conventional refers to the forms that are more common in a context; they can be “syntactic forms” that have been established as the “standard idiomatic forms” (Márquez-Reiter & Placencia, 2005: 27). Thus, the sentence Could you please close the
window? is an example of conventional indirectness. The sentence *It's freezing outside* on the other hand, represents a non-conventionally indirect type of sentence where the hearer understands an utterance that has a completely different literal meaning. These are more complex to comprehend for the hearer since s/he has to consider mutual background information of the speaker and hearer (linguistic or not). This comprehension and knowledge of mutual backgrounds is defined in the Gricean rules for conversational principles (Márquez-Reiter & Placencia, 2005), which is a theory of speech acts where the speaker shows that he is cooperating with the conversation, and understands mutually shared information, the preparatory conditions for the speech act and the implied meaning in the utterance.

In the Cross-Cultural Speech Act Realization Project (CCSARP), Blum-Kulka et al. (1989) explored two speech acts, requests and apologies, in seven languages. They classified the speech acts studied in terms of the adjacent phrases that can be modified to mitigate or intensify the act. They classified them into alerters, head acts and supportive moves. The alerters are the opening sequences intended to receive the attention of the hearer (e.g. *I'm sorry…*). The head act is what helps realize the act and it is marked by different strategies (e.g. explicit in language or more implicit or hinted) and by the perspective taken when speaking (e.g. *Could you lend me $100 for the week?*). It is what helps realize the act “independently of other elements” (Blum-Kulka et al., 1989, p. 17). The supportive moves are the units that modify the impact of the realization, either by mitigating or aggravating the force of the utterance (e.g. *I have to work* to mitigate the effect of a refusal) (Márquez Reiter & Placencia, 2005, p. 32; Blum-Kulka & Olshtain, 1984).

The reasons for use of indirectness vary between authors: Searle (1975), Brown and Levinson (1987), and Leech (1983), for example, claim that politeness is the major motivation
for indirectness. In the case of Searle (1975), he makes this claim mainly for the case of directives. Other authors, (Rosaldo, 1982; Wierzbicka (1985) as cited in Márquez-Reiter & Placencia, 2005, p. 30; Blum-Kulka, House & Kasper, 1989; Chen, Ye & Zhang, 1995) attribute the choice for indirectness to cultural norms. Dascal (1983) on the other hand, attributes the use of indirectness to the lack of an alternative form, depriving the individual of communicative efficacy. This can happen when a second language speaker is not familiar with the conventions and rules of the target language (Chen, Ye & Zhang, 1995; Taguchi, 2008a).

In reference to speech acts across cultures, Blum-Kulka et al. (1989) assert that some speech act realizations might be language-specific and cannot be translated into other languages due to their literal meaning. Taguchi (2011), however, points out that speech acts can be better comprehended across languages when speech patterns are similar in both languages. This comparison across languages is also done by Olshtain and Cohen (1989) who state that despite the fact that every language should have what they define as the “speech act set”, the speaker preference as to the realization of the speech act by speakers will be culture and situation-dependent. Thus, indirectness should be culture and situation dependent as well.

1.2.3. Politeness

Politeness is a sociocultural variable present in the norms of every society. Speakers make use of politeness strategies to try to minimize threats to the hearers and convey their intentions more successfully depending on the power relationship between them and the hearers. Brown and Levinson (1987) proposed their theory of politeness in the late 1970s and revised it in the late 1980s. They developed some universals for politeness in the use of language and systematized politeness as a linguistic theory by satisfying the criteria for empirical theory (Márquez-Reiter & Placencia, 2005). The authors defined the concepts of rationality and face as
the main universals of language usage. Rationality refers to a specific mode of reasoning that guarantees the ends, or goals to the means, that will help accomplish those ends. Face, on the other hand, refers to the public image an individual has; it is explained as having two facets: positive face and negative face. The former refers to the desire of the individual to be approved by others; the latter, to the desire to be unimpeded by others in one’s actions. Thus, within positive politeness the speaker intends to make the hearer feel good about himself; it avoids giving offense by showing friendliness. Within negative politeness, the speaker is assumed to be imposing to the hearer and avoids giving offense by showing deference.

If a speech act threatens the hearer’s positive face, the speaker does not care about the hearer’s feelings or wants; for example, in complaints or insults. If, on the other hand, the speech act threatens the hearer’s negative face, it has the potential to impede upon the hearer’s freedom of action, such as through the use of directives (e.g. requests, suggestions).

Based on Brown and Levinson’s (1987) politeness theory, Scollon and Scollon (2001) developed a model in which they classified the negotiation of face into three politeness systems, referred to as solidarity, deference and hierarchical politeness systems. In the solidarity system, interlocutors see themselves as socially equal (-Power), they have a close relationship (-Distance) and they normally express solidarity through positive politeness, which is the one that minimizes the threat to the hearer; it is friendly. This system is symmetrical. In a deference politeness system, the interlocutors’ relationship is symmetrical as well, that is, they are socially equal (-Power), but there is distance between them (+Distance). Both interlocutors use negative politeness to avoid losing face, or the public image they have. In the hierarchical system, one interlocutor exerts power over the other (+Power) and the relationship can be close or distant (+/-Distance). This is an asymmetrical system; the interlocutor with power uses positive politeness
and the subordinate one uses negative politeness, in which the speaker is imposing upon the hearer.

The L2 literature has been developed mostly under the theoretical framework of Brown and Levinson’s (1987) politeness theory and deference system. Most studies have focused on the production of politeness strategies by native and nonnative speakers of various languages (e.g. Spanish and English) taking into account the possible differences depending on the social status of speakers or other social variables (e.g. length of residence in the target context). Moreover, most of the studies have classified data regarding the content of semantic formulas for refusals (Beebe et. al., 1990) and provided a wide list of strategies that speakers could possibly universally use. This is a significant contribution to the field and specifically as a reference to the research about refusals. The most relevant studies that relate refusals to politeness will be discussed below. Still, there is need for research in the comprehension of speech act of refusals with regard to politeness.

1.2.4. Refusals

Under Searle’s (1976) classification, refusals are a subcategory of responses to the commissive speech acts, in which the speaker or refuser, not the hearer, obliges himself/herself to perform some future action. The speech act of refusals represents a responding act in which the speaker “denies to engage in an action proposed by the interlocutor” (Chen, Ye & Zhang, 1995, p. 121); he/she is not actually obligated to do it and expresses his/her reasons for not doing it (e.g. I’m not going to your party. I have to work). They have a unique nature in that they are second pair-parts in the adjacency pair definition in conversation analysis (VonCanon, 2006, Taguchi, 2008a). In addition, due to their face-threatening nature (Félix-Brasdefer, 2004; Johnson et al., 2004), they require extensive planning from the speaker since the number of
possible answers is large (Gass & Houck, 1999). Similarly, refusals are sensitive to social variables such as gender, social status, and level of education (Félix-Brasdefer, 2003) and they also differ by cultures (Taguchi, 2008a; 2011; Bella, 2011).

As mentioned, refusals are a response to an interlocutor’s proposition. Following Edmonson’s (1981) spoken discourse approach and Labov and Fanshel’s (1977) definition of ‘refusal sequences’, Gass and Houck (1999) elaborated a model to describe the stages of a refusal interaction, that is, the possible trajectories for refusals starting from the Initiators until the Final Outcome. Thus, the Initiator (I) starts the process with a request, invitation, offer or suggestion. Two possible replies occur from the Respondent (R): a sincere acceptance that becomes an agreement, or a nonacceptance. The latter is presented in different ways: as a refusal, a postponement, or an alternative. If the I accepts the sincere acceptance from the R, the interaction finishes right away and the Initial Response becomes the Final Outcome. On the contrary, if the I does not agree with a nonacceptance from the R, he/she can start a Negotiation process (with the R) which will result in various options for the Final Outcome. The Final Outcome ends the interaction; the I can receive the acceptance from the R, or the various options that are product of the Negotiation (e.g. refusal, postponement, compromise or an alternative).

1.2.4.1. Refusal strategies

As stated above, refusals sometimes require long negotiations and a risk of offending the hearer, so in most cases the use of indirectness is involved in negative replies to an invitation (Beebe, Takahashi, & Uliss-Weltz, 1990; Félix-Brasdefer, 2004). The refuser feels more motivated to use indirectness to soften the utterance and thus tries “to avoid responsibility for the negative consequences that the refusal might bring on the hearer” (Félix-Brasdefer, 2002, p. 204) so that the hearer decides how to interpret it. As a speech act, refusals have a head act and
supporting moves, or adjuncts (Beebe et. al., 1990), in their direct version (e.g. *Sorry, I can’t go*), and might not have a head act, but instead a discourse marker, or mitigator, to downgrade or upgrade their effect in the indirect version (e.g. *I’m sorry, I have to work* to downgrade).

Refusal strategies, or their semantic formulas, have been classified by different authors in different ways, but all include direct and indirect categories. (Beebe et. al., 1990; Félix-Brasdefeer, 2002, 2003 2004, 2008; VonCanon, 2006; Gass & Houck, 1999). The classification by Beebe et. al. (1990) organizes direct strategies into two groups: (1) direct and (2) nonperformative statements. The direct group refers to the use of the performative verbs, such as “*I refuse*”. The nonperformative statement group has two subdivisions, the first is the “Flat No” and the second is the negative willingness or negation of a proposition (VonCanon, 2006), such as “*I can’t*”. Regarding strategies for refusals, Beebe et al’s (1990) classified them in direct and indirect. Indirect refusal strategies were divided into eleven categories: 1. Statement of regret (*I’m sorry*); 2. Wish (*I wish I could help you*); 3. Excuse, reason or explanation (*I have a headache*), 4. Statement of alternative (*I’d rather…*); 5. Set condition for future or past acceptance (*if you had told me earlier…*); 6. Future promise (*I promise I’ll do it next time*); 7. Statement of principle (e.g. *I never do business with friends*); 8. Statement of philosophy (e.g. *One can’t be too careful*); 9. Attempt to dissuade the interlocutor (e.g. *I won’t be any fun tonight*); 10. Acceptance that functions as a refusal (e.g. Lack of enthusiasm, or indefinite reply); 11. Avoidance (e.g. hesitation, topic switch). In addition, Beebe et al (1990) added the adjuncts to refusals (e.g. *That’s a good idea…*) and the refusal sequences (e.g. pre-refusal, main refusal—head act, and post-refusal strategies).

Other important taxonomies of refusals have gone beyond the one proposed by Beebe et. al., who classified them into direct refusals and indirect refusal strategies. Félix-Brasdefeer (2002)
restructured Beebe et al’s strategies and adapted them from his study of Spanish and English strategies. The author classified the strategies based on a direct-indirect continuum with six additional strategies that went from the flat ‘no’ until others more specific such as gratitude/appreciation (Félix-Brasdefer, 2002, p. 105). In another work, Félix-Brasdefer (2003) adapted Beebe et al’s (1990) refusal strategies and García’s (1992) levels of social status for Spanish. García (1992) uses equal social status, Félix-Brasdefer (2003) added the higher and lower social status. The last classification considered is the work from VonCanon (2006). She adapts the previous authors’ works and classifies them into twelve categories within the indirectness continuum. All of the above classification systems include (1) direct refusals, (2) indirect refusals and (3) adjuncts to refusals. Appendix A shows a summary of three authors’ taxonomies for indirect refusals and adjuncts to refusals.

Blum-Kulka’s et al. (1989) coding of the speech act (alerter, head act, and supportive move), Beebe et al’s (1990) classification of refusal strategies (direct, indirect and adjuncts to refusals) and their adaptation by Félix-Brasdefer (2002) were utilized in this dissertation. Thus, a classification of a refusal structure is proposed considering the elements by Blum-Kulka’s et al (1989): coding of the speech act (alerter, head act, and supportive move), Beebe et al.: classification of refusal strategies—direct, indirect and adjuncts to refusals (1990), and their adaptation by Félix-Brasdefer (2002).

Although not an explicit refusal strategy by previous authors, implicatures are considered in this dissertation as part of the indirect refusal strategies. The term implicature in pragmatics refers to meaning that is implied, that is to say, meaning not expressed literally in the utterance. Grice (1975) explained implied meaning comprehension through his Cooperative Principle which allows people to draw conclusions and interpret what others are saying from the context of
conversation (Taguchi 2007, Reiter & Placencia, 2005). For example, when a speaker says: *I’m out of milk*, the listener replies: *There’s a supermarket around the corner*; the answer is given based on the assumption that the speaker follows the rules of conversation (or Conversation Maxims) and cooperates with the speaker by providing an answer that is relevant in the context for him to make inferences. This is later supported by Sperber and Wilson’s Relevance Theory (1995) which clarifies that not only the decoding of the linguistic information is sufficient for interpreting and responding to an inference, but also the context of the conversation. They divide context into external and internal context. External context has to do with the sociocultural parameters that are used in conversation and the relationships between speakers. The internal context refers to the principles, beliefs and experiences of each speaker, that is, the cognitive environment. Thus, Relevance Theory “emphasizes the relationship between context and processing effort” (Taguchi, 2005, p. 545).

A speaker might express implied meaning in two ways, more conventionally or less conventionally. Grice (1975) distinguishes between two types of implicatures: conventional and conversational (or less conventionally). The first one refers to utterances where meaning requires less processing effort, meaning is more literal and easier to interpret and more context-independent as in: *She has two daughters*, meaning that she has exactly two daughters. Conventionalized forms of some speech acts such as requests like *Would you mind + verb* form part of this type of implicatures (Taguchi, 2005).

Conversational implicatures, on the other hand, require context for a correct interpretation. That is to say, both speakers require more attention to draw inferences from the common knowledge of the situation and non-verbal cues to process the implied meaning of the utterance heard. Thus, this type of implicatures requires more processing effort. An example of
the conversational implicatures is in the utterances: *Did you like the movie?* Where the answer is: *I was glad when it was over.* (Taguchi, 2008b). Meaning for these expressions becomes less predictable and freer than conventionalized. Research (Garcia, 2004; Taguchi, 2007; 2008 a; 2008b) shows that implicatures are more difficult to comprehend than other types of indirect refusals. Among other reasons, comprehension of implicatures is more difficult than other types of indirect refusals due to the higher processing effort that the individual has to do when listening to an utterance.

### 1.2.4.2. Research on Refusals

For the past 25 to 30 years, studies on refusals, within and across languages have focused on the production or perception of the speech act (e.g. Japanese and English: Beebe et al., 1990; Gass & Houck, 1999; Spanish: García, 1992, 1999; Spanish and English: Félix-Brasdefer, 2002, 2003, 2004, 2008, 2009; VonCanon, 2006; Chinese: Chen, Ye & Zhang, 1995; Chinese and English: Chang, 2009; Thai: Wannaruk, 2008, Persian and Kurdish: Aliakbari & Changizi, 2012; Greek: Bella, 2010; Iranian and English, Allami & Naeimi, 2011). L2 refusals literature has been developed mostly under the theoretical framework of Brown and Levinson’s (1987) politeness theory and deference system, or pragmatic transfer. Most studies have focused on the production of politeness strategies by native and nonnative speakers of various languages (e.g. Spanish and English) taking into account the possible differences depending on the social status of speakers or other social variables (e.g. length of residence in the target context). Moreover, most of the studies have classified data regarding the content of semantic formulas for refusals (Beebe et. al., 1990) and provided a wide list of strategies that speakers could possibly universally use. This is a significant contribution to the field and specifically as a reference to the research about refusals.
As for refusals in Spanish and English, research has been done with native speakers (e.g. García, 1992; 1999) and L2 learners of Spanish (e.g. Félix-Brasdefer, 2002; 2003; 2004; VonCanon, 2006). Most of the studies focus on participants’ politeness strategies to people of higher, equal or lower status (Beebe et al., 1990; García, 1992; Félix-Brasdefer, 2002; 2003; 2004) when refusing invitations (Félix-Brasdefer, 2003; 2004), suggestions, and requests (Félix-Brasdefer, 2002; VonCanon, 2006) to speakers with varied relationships of power and distance.

A number of authors (Allami, 2009; Bella, 2010, Chang, 2009, Taguchi, 2011) claim that in the case of refusals, not only the knowledge of the linguistic formulae or terms is sufficient, but also the knowledge of the sociocultural values is relevant for L2 speakers of a language in their interaction with speakers of different status (Beebe et al., 1990; Félix-Brasdefer, 2002; Félix-Brasdefer, 2004). Americans, for example, used an expression of apology/regret (e.g. I’m really sorry) with all status speakers, while Japanese speakers omitted this expression when they were in a higher status than the person making the invitation (Beebe et al., 1990). Spanish speakers differ from native English speakers mostly in directness. They show the use of flat ‘no’ strategy (Félix-Brasdefer, 2002; VonCanon, 2006) especially with unequal status.

Cultural factors and pragmatic strategies, although common to all languages, have been analyzed by communities which are geographically distant (e.g. Spanish in Peru, Mexico or Spain); they behave differently across varieties of Spanish. In the case of refusals, users of Latin American Spanish tend to apologize more often than Peninsular Spanish speakers. In addition, there is an extra step of insistence in Peruvians Spanish speakers’ use of refusals (Garcia, 1992; 1999). In this case, Spanish speakers present two stages when refusing an invitation: the first is the response and the second the response to the insistence. The Mexican community, on the other hand, has been described as being culturally different from U.S. Americans. They are appointed
a “group face” definition within the face concept which refers to the fact that the individual belongs to a social group (work group, neighborhood or nationality group) in which whatever individual action draws from and reflects on the group he/she belongs (Bargiela-Chiappini & Kádár, 2011). This is different from the U.S. American culture which is best described as having individual face (Félix-Brasdefer, 2002) where the individual is not as influenced by the culturally expected norms of the society. In general, for the languages reviewed, power relationships make a difference when choosing a refusal strategy by native and nonnative speakers (García, 1992; 1999; Félix-Brasdefer, 2002; 2003; 2004; VonCanon, 2006).

### 1.2.5. Variables that can affect L2 pragmatic competence

#### 1.2.5.1. Language contact and length of residency

Pragmatic competence refers to the use of language in a context which involves the interaction of speakers in their L1 or L2. For L2 speakers, it has been stated that the amount of language contact and the length of residency in the L2 environment influence positively the pragmatic development in L2 speakers.

Research has shown that bilinguals who have L2 contact in an L2 environment show advantages over the ones in a foreign context (Taguchi, 2008a, 2011; Rafieyan, 2015). Length of residency influences pragmatic comprehension in a positive way; studies show that individuals who spend longer in the L2 environment benefit from the time they spend for their proficiency development. However, recent studies claim that it is not only the length of stay that determines pragmatic ability but the amount and quality of the language contact the individual has (Taguchi, 2007; 2008a; Bella, 2011; Rafieyan, 2015).

When looking specifically at performing refusals in Spanish by L2 learners, both grammatical knowledge and length of residence make a difference. Regarding the former,
research claims that the lack of grammatical knowledge might prevent learners from performing refusals appropriately (Félix-Brasdefer, 2002). Most research claims that L2 linguistic proficiency has an effect on speed of pragmatic comprehension, but mixed findings are presented when related to accuracy (Taguchi, 2011), that is, individuals who live abroad for a period of time have better comprehension of nonconventional indirect structures, which does not happen for the ones with no experience abroad (Taguchi, 2011).

Length of residence, however, has contradictory results across studies (Taguchi, 2007; 2008a). Sometimes, the development of comprehension does not benefit from the learner spending time in the target environment, probably because the context did not provide many opportunities to practice the tested structures (Bella, 2011). Most studies claim that length of stay in the target culture has been found to be a better predictor of pragmatic ability (Félix-Brasdefer, 2002; 2009) and politeness strategies when refusing (Félix-Brasdefer, 2004) rather than proficiency level (Félix-Brasdefer, 2002). Regarding speed of comprehension, results vary depending on the variable they are related to. For instance, it varies according to the difficulty of the item. That is to say, the more conventional items (i.e. less implied) are more quickly comprehended (Taguchi, 2007). In addition, L2 learners might improve accuracy over time but not necessarily speed; although more proficient, they might still take longer to process a listening task.

1.2.5.2. Cognitive variables

Working memory (WM) and lexical processing speed are considered two of the cognitive variables that aid language performance. Research shows the effect of WM (Taguchi, 2008b; Linck et. al., 2014) and lexical access (Taguchi, 2008b; 2007) on L2 pragmatic performance.
1.2.5.2.1. Speed of lexical access

The mental lexicon is the dictionary of the human being. It stores all the words the person knows. Retrieving those words from the mind and information (or meaning) about them is defined as lexical access. Lexical information in the brain can be phonological, orthographic or semantic (Dijkstra, 2005). When retrieving (or recognizing) words from the lexicon, information based on any of these characteristics can be used. To test this retrieval, empirical research has used diverse tasks that require the use of phonological information such as naming a presented word, or semantic information such as categorizing a word (or object).

Speed of lexical access is also considered an important variable in L2 performance. For bilinguals, the lexicon presents challenges to individuals along their life span. For adults, vocabulary problems occur through aging; the measure in this case is not vocabulary size, as it is in children, but lexical retrieval, or vocabulary access (Bialystok, 2009). Adult bilinguals have slower speed than monolinguals in accessing vocabulary. In monolinguals, the retrieval of a word’s meaning information can take few hundreds of milliseconds (Dijkstra, 2005), and goes through stages from the identification of the letter string, which activates the orthographic neighbors, then reducing the number of possibilities, and ends by recognizing the word. Questions have arisen regarding whether bilinguals access lexicon in the same way as monolinguals, through the same stages of letter string identification, and whether nonlinguistic information has to do with how they access the mental lexicon (Dijkstra, 2005). Learners can process word meaning quickly or not too quickly to provide an answer.

Researchers agree that lexical access speed supports pragmatic performance, especially in pragmatic listening because it involves assigning meaning to every word that has been heard in an utterance (Taguchi, 2008a). Cognitively, speed of lexical access involves lower level
processing (Taguchi, 2008a), and interpreting the speakers’ intentions involves higher level processing. As mentioned above, research showed that lexical access speed has had more of an influence on pragmatic comprehension speed than on pragmatic accuracy (Taguchi, 2007, 2008a, 2008b). In the study above about pragmatic comprehension accuracy and speed, their relation to lexical access speed was observed (Taguchi, 2007). 92 L2 students of English took a word recognition test in which they had to classify words between living and nonliving objects. Lexical access speed was then correlated with pragmatic accuracy and speed, and showed a relationship with pragmatic comprehension speed but not with pragmatic comprehension accuracy. It was concluded that speed of lexical access (lower level processing) is related to pragmatic processing (higher level processing).

**1.2.5.2.2. Working memory**

Working memory (WM) is described as the system responsible for the temporary processing, maintenance and holding of information simultaneously (Taguchi, 2008b; Linck et. al., 2014) until this information can be incorporated into the cognitive process that integrates that data. The amount of data that can be stored is limited and the speed of recall of this data varies (Linck et. al., 2014). WM has been found to be related to complex cognitive processes (i.e. problem solving, planning, mental arithmetic) and to L1 comprehension; for example, a larger WM capacity is related to better learning of vocabulary, more proficient writing and better L1 reading and listening comprehension (Atkins & Baddeley, 1998; Daneman & Hannon, 2007; Engle, 2001). It has also been related to L2 processing production and comprehension, where it has been claimed that more cognitive resources are required than for processing in L1 (Linck et. al., 2014). Linck et. al. (2014) did a meta-analysis of data with 79 different studies that examined the relationship between WM and L2 processing. They selected the studies by
identifying three categories that they considered were the moderators for the relationship between those variables. Those characteristics were: WM task features (i.e. simple vs. complex span tasks, verbal vs. nonverbal tasks), L2 performance measures (i.e. comprehension vs. production, processing vs. proficiency) and participant L2 proficiency (high or less proficient learners). They also took into account the publication status of the studies (published and unpublished studies—theses and dissertations). They concluded that WM had a positive relationship with the L2 outcomes and that the executive control component of WM (measured through complex tasks) was more related to L2 outcomes than the storage (measured through simple tasks). In addition, verbal WM measures were more strongly correlated to L2 outcomes.

Level of L2 proficiency may influence the importance of WM capacity in L2 processing, as some studies have found that less-proficient bilinguals have stronger effects of WM than higher proficiency bilinguals (Linck et. al., 2014). Several studies have found that (L1 or L2) WM affects L2 listening comprehension in L2 speakers in diverse proficiency levels (Fay & Buchweitz, 2014; Satori, 2012). In this case, listening embodies some difficulty because it requires real-time comprehension (Taguchi, 2008b) and storing the information where there is no text to refer back to (Shiffrin, 1971). Satori (2012) tested the WM capacity in L1 and L2 of 150 Japanese EFL learners. They were also given listening comprehension and proficiency tests. For WM, they completed digit span and listening span tasks. These measures were correlated with the other tasks; results showed that WM in L1 and L2 was related to the listening comprehension processes, and it was stronger in the lower-level group than in the higher-level group. Thus, higher levels of proficiency result in some automatization of the listening process by speakers. Fay and Buchweitz (2014) examined whether differences in WM capacity predicted listening comprehension in L2. They administered a listening comprehension task in L2 and a WM
capacity task in L1 to 24 low proficiency EFL students. It was found that individual differences in WM capacity predicted listening comprehension performance; that is, participants with the lowest scores in the WM capacity task, had more difficulty maintaining information in the listening test.

Some other studies have found no effect of WM on L2 listening comprehension. For example, Andringa et al. (2012) had native and nonnative speakers of Dutch do a series of reading and listening tasks and examined the relationship of L2 comprehension to four possible explanatory factors: linguistic knowledge, processing speed, working memory capacity and reasoning ability. For working memory they used reading and listening span tasks. Results found that knowledge was the most important predictor for listening comprehension success in native and nonnative speakers. Nevertheless, there were differences between groups in the other factors. For native speakers, processing speed was also important, while for nonnative speakers, reasoning ability (IQ) had an important role. Contrary to the previous studies mentioned, WM had no principal role in listening comprehension in either group although native speakers had stronger correlations than the nonnative speakers. The researchers conclude that experience with the language explains how for native speakers the knowledge, processing speed and better scores in working memory tasks, result in better listening comprehension, while for nonnative speakers, knowledge and IQ and almost no correlation in working memory tasks showed their lack of experience with the Dutch language. This study does not support WM as a factor in L2 comprehension; no other studies were found that show this same findings. However, the results of this study fit in with a different interpretation of working memory findings—that is that working memory system is not separate from the cognitive functions executed; it rather emerges
from an interaction of biological factors and language experience (MacDonald & Christiansen, 2002).

The above studies have examined WM in relation to reading and listening abilities in L2; however, very few studies have addressed the relationship between WM and pragmatics. In the current study, WM and its relation to listening comprehension skills and pragmatics are considered since participants are presented with the pragmatic information in a listening modality. Unlike processing of words (i.e. lower-order information), pragmatic processing would represent higher-order processing since it would require processing of non-linguistic information such as sociocultural and contextual information. This could demand more WM capacity and increase the processing load (Taguchi, 2008b). It is also suggested that low-proficiency L2 learners tend to rely more on WM when presented a pragmatic comprehension task; as they become confused with the content, they are only able to rely on the words they maintain in their WM (Taguchi, 2005).

Looking specifically at the role of working memory in L2 studies involving pragmatics, Taguchi (2008b) gave a WM test (reading span test) in the L1 (Japanese) for learners of English and related that to their performance in a pragmatic listening task. In this study, WM showed no correlation with pragmatic comprehension accuracy or speed. In another study testing production of conventional implicatures by children (ages 8 to 12), Janssens, Drooghmans and Schaeken (2015) gave the children a listening span task to be able to relate it to performance on the pragmatic task. The pragmatic task was induced by the words: but, so and nevertheless. No relationship was found between children’s ability to infer and produce the conventional implicatures and WM capacity.
Thus, as seen in the review above, there is evidence that working memory is involved in the L2 listening comprehension process, as well as evidence that it is not. However, there are very few studies that examine the relationship between working memory and pragmatics (comprehension and production), and none of these have found that relationship. More studies need to be done to test WM in both languages for bilinguals and relate their performance to their pragmatic performance.

1.3 Summary

This chapter presented an overview of the elements and variables to be taken into account in the dissertation. It defined pragmatic competence as the ability that the individual has to use the language appropriately in the context s/he interacts with. It also discussed the cognitive theories underlying pragmatic comprehension. Then the chapter discussed the speech act theory and an important element for this theory, such as politeness and the speech act of refusal was explained as well as the variables (internal and external) that influence its comprehension. After reviewing this literature, we try to research Spanish English Bilinguals’ (SEB) pragmatic competence in English through the comprehension of refusals under the influence of variables such as length of residency in the second language environment, amount language contact, politeness, and cognitive processing variables. Since research on the speech act of refusals has mostly focused on the production of its linguistic strategies, we chose some of these classifications for this dissertation work. The general classification is presented as follows: 1. alerters (or adjuncts to refusals, e.g. *I’m sorry...; I’d love to but...; actually...*), 2. head act (negation, e.g. *I can’t*) and 3. supporting move (indirect strategies—excuses—used by speakers, e.g. *I’ll be out of town*)—(Beebe, et. al, 1990, Félix-Brasdefer, 2002; 2003; 2004; VonCanon, 2006). In addition, 4. an implicature refusal structure alone, that is, without alerters, as used in
Taguchi (2005, 2007, 2008a, 2008b) has been chosen as the most indirect refusal strategy (e.g. Refusal to invitation to a party: *I have a test tomorrow*). In this case, providing a reason or excuse for the refusal is the structure chosen which in Taguchi’s terms represents a more conventional implicature. A more specific organization of the categories is described in the main study section below.
A pilot study was conducted to measure comprehension of direct and a variety of indirect refusals by a group of native English speakers and to provide a baseline research for nonnative speakers in the final work. The study sought to answer the following research questions: (1) Is there a difference in the comprehension of different types of refusals (direct and indirect) to invitations in English? (2) Is there a relationship between speed of lexical access and comprehension of refusals in English? (3) Is there a relationship between the comprehension and production of English refusals to invitations?

2.1. Participants

Participants in this study were 23 native speakers of English enrolled in psychology courses at a large university located in the south of the United States. Demographic and language background information was gathered. Their average age was 21 (SD=1.62). Most participants had some exposure to a foreign language (M=2.32 years, range 0-5), with the majority having exposure to Spanish (n=8) or French (n=10).

2.2. Target structures

Direct and indirect refusals were selected for the study. Direct refusals require what we define as the head act of negation (e.g., I can’t). However, in this study, this negation was presented as part of a mitigated direct refusal (Félix-Brasdefer, 2002). Therefore, the structure was composed of a discourse marker, or adjunct to refusal (e.g., I’m sorry), the head act: use of can’t, and a supporting move expressed in the strategy of a reason or explanation for refusing (e.g., I have to work). Even though an apology strategy was added to the statement, what marked it as a direct refusal was presence of the negative willingness/ability under the nonperformative statement classification for direct refusals in Beebe et. al. (1990) I can’t.
The indirect refusal was introduced by an adjunct with the purpose of mitigation and completed with a reason or explanation for refusing. There were two types of indirect refusals, which varied by type of mitigator. Adjuncts work as either downgraders that soften the negative effect, or as upgraders, that intensify or, in this case, announce the response to the hearer. The downgrader in use for this study was the expression *I'd love to*, representing willingness (Beebe, et. al, 1990; Félix-Brasdefer, 2002; 2003; 2004; VonCanon, 2006). The upgrader was used by means of an adverb (Félix-Brasdefer, 2004; 2008) which means opposition to the possibility: *actually*. Indirect refusals used in this experiment took a more conventional language use pattern. That is to say, the supporting move was represented as a reason or explanation for refusing (Beebe, et al, 1990; Félix-Brasdefer, 2002; 2003; VonCanon, 2006) since it was the strategy mostly used by American speakers of English (Beebe, et. al, 1990; Félix-Brasdefer, 2002; 2003; VonCanon, 2006). There were also indirect acceptance items used as distracters, and filler items that tested positive and negative opinion.

Politeness was not a variable to be measured in this investigation. However, research has proved it has an important influence in the type of answers to different eliciting situations (Beebe, et. al, 1990; Félix-Brasdefer, 2002; 2003; 2004; García, 1992; 1999; Voncanon, 2006), so we therefore controlled the level of politeness structure. A solidarity system (−Power; −Distance) was chosen as the only politeness structure under Scollon and Scollon’s (2001) classification of politeness and deference. To be specific, the structures/conversations in the instrument in this paper were only developed within a friendship environment, with people at the same social status, such as classmates and friends.
2.3. Stimuli

Participants were presented with a series of three tasks consecutively. The first task, pragmatic listening task (PLT), intended to measure their pragmatic comprehension. The second task, a picture naming task, measured their lexical access. The third task was an oral production task involving the speech act of refusals.

2.3.1. Pragmatic Listening Task (PLT)

Before designing the main instrument, a survey was administered via Internet to 48 native speakers of English with the purpose of giving construct validity to the possible excuses given to refuse the invitation. The survey asked them to select, from a 5-point Likert scale, the likeliness for the 36 excuses to be true. This survey (appendix B) gave origin to the excuses chosen for the final instrument. Table 1 shows a sample item of the survey.

Table 1. Sample of the survey to determine excuses by American speakers of English

| This survey is designed to learn about the degree of legitimacy of the excuses that people can give when refusing invitations from friends, classmates, or coworkers. |
| Read the statements below. Answer the question by clicking on the box next to your answer. |
| You invite a friend to go dancing tonight. |
| Your friend replies: |
| "I'm not feeling well". |
| How likely do you think that this reason is true? |
| Highly likely / Likely / Not sure / Unlikely / Highly unlikely |

For this survey, the scores for the answers provided were added and weighted (highly likely=5 through highly unlikely=1). Triplets close in ratings within a 5-point distance were
equated and matched and then chosen for the experiment, so we were able to distribute the highest scores evenly into the four categories of refusals.

A pragmatic listening task (PLT) was adapted from Taguchi (2008a) to measure pragmatic comprehension. A pragmatic listening task involves listening to a short dialog, and answering a yes/no question about the dialog by pressing a key for yes and a different one for no. The instrument consisted of 55 items distributed as follows: 1 practice item, 9 direct refusal dialogs, 9 indirect refusal dialogs with downgraders in the initial position, 9 indirect refusal dialogs with upgraders in the initial position, 9 indirect acceptance items (distracters), and 18 filler items. The acceptance items used indirect acceptance phrases and were included within the refusals. The filler items were taken directly from Taguchi (2008b), and tested indirect opinion (10 positive and 8 negative); these last two structures added diversity to the type of structure requested and served as distracters. Dialogs were written to appear natural and were recorded by a male and a female native speaker of English at an everyday rate of speech. The length of the conversation was kept similar between 12 and 15 seconds, as Taguchi (2008a) states that it helps “control the impact on participants’ short-term memory” (p. 45). Table 2 below shows a sample of the conversations used in the instrument. Turns taken were limited to two for each person.

Table 2. Sample of dialogs for refusals

<table>
<thead>
<tr>
<th>Type of refusal</th>
<th>Sample dialog</th>
</tr>
</thead>
</table>
| Refusals to invitations—direct | Jenny: Hi Tyler. What’s up?  
Tyler: Not much. What are you up to?  
Jenny: Well, Cindy and I have tickets for Saturday’s football game. Do you want to come with us?  
Tyler: I’m sorry. I can’t. I have to work on Saturday.  
Q: Is Tyler going to the game? |

(Table 2 cont’d.)
<table>
<thead>
<tr>
<th>Type of refusal</th>
<th>Sample dialog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect refusals to invitations—downgraders</td>
<td>Jane: Hi, Ross. Ross: Hi, Jane. How’s everything? Jane: Good. Thanks. Hey, Mary and I are playing golf every Saturday morning. It’s been fun. Do you want to join us? Ross: I’d love to but I’m not good at golf.</td>
</tr>
<tr>
<td></td>
<td>Q: Is Ross going to play golf?</td>
</tr>
<tr>
<td>Indirect refusals to invitations—upgraders</td>
<td>Susan: Hi Dave. How are you? Dave: Hi Susan. I'm OK. What have you been up to lately? Susan: Well, not much new or exciting, but I'm having a party this Saturday, and it should be fun. I hope you can come. Dave: Oh, Susan, I already have plans on Saturday.</td>
</tr>
<tr>
<td></td>
<td>Q: Is Dave coming to Susan's party?</td>
</tr>
<tr>
<td>Indirect acceptance</td>
<td>Jill: Hi Paul, how are you? Paul: Hi! I’m doing well. Just ready for the weekend. Jill: Well, my sister and I are going to the Symphonic Orchestra concert tomorrow night. Do you wanna join us? Paul: I’ll meet you at the ticket box.</td>
</tr>
<tr>
<td></td>
<td>Q: Is Paul going to the concert?</td>
</tr>
</tbody>
</table>

2.3.2. Picture naming task

A picture naming task was also designed to measure vocabulary and fluency among speakers. This was done with the future purpose of comparing the results with nonnative speakers. The task consisted of 28 pictures selected from the International Picture Naming Project website (International Picture Naming Project, 2010), retrieved from https://crl.ucsd.edu/experiments/ipnp/. The items were selected to vary in frequency: high (5-9.88 per 10): 10 items, medium (3-5 per 10): 10 items, low (0-2.99 per 10): 8 items, crossed with
animacy: animate, 14 items, inanimate, 14 items. Words and pictures for every category can be found in Appendix C.

### 2.3.3. Oral production task

Since this was the pilot project with native speakers of English, an oral production task was designed to elicit refusals to invitations from participants, in order to examine if production correlated with the comprehension task. The instrument consisted of 6 invitations to be refused and 2 invitations to be accepted by participants. The last two worked as distracters. Each item presented a scenario with a suggestion to refuse or accept, and an oral invitation to be listened to. Participants were instructed to orally respond to the invitation. Table 3 shows two sample items for the task.

#### Table 3. Sample of oral production task to refuse and accept an invitation

<table>
<thead>
<tr>
<th>Type of invitation</th>
<th>Oral production item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refusals to invitation</td>
<td>Your friend asks you to skip the evening class and go to a bar. You refuse to go. Voice: Hi there. I’m skipping tonight’s class, I’m heading to a bar instead, you wanna join me?</td>
</tr>
<tr>
<td>Acceptance to invitation</td>
<td>Your friend invites you to play sand volleyball tomorrow. You accept to go. Voice: Hey, what are you doing tomorrow? I’m getting up a game of beach volleyball at my place. You want to join us?</td>
</tr>
</tbody>
</table>

### 2.4. Data collection

#### 2.4.1. Procedure

The experiment took about 30 minutes to complete. Participants signed the consent form and started by taking the PLT. Since there were 55 dialogs in the instrument, participants listened
to half of them (about 28) presented randomly by the Super Lab software. The procedure for each dialog was as follows: Participants were presented a scenario (e.g. *In the classroom*) in written form on the computer screen for one second. The screen then went blank and the dialog was played only in audio form. As soon as the dialog finished, the *yes/no* comprehension question about the refusal/acceptance appeared on the screen for subjects to read. They responded to the question about the dialog by pressing the number 1 key for an affirmative answer and the number 0 key for a negative answer. Response time was measured.

Then, the picture naming task was administered. For this, each picture appeared on the screen, participants named the picture aloud, after which a blank screen appeared and they had to press a key to move to the next item. Reaction time was also measured. The experimenter wrote down their answers, which were also audio recorded and checked later. The time taken to initiate naming the picture was recorded by the computer. Immediately after the picture naming task, the second half of the PLT was administered with the same procedure as above. As soon as this segment was finished, the interview about demographic and language background information was done.

After the interview, the oral production task was administered. A scenario appeared in written form on the computer screen; also, participants were instructed to accept or refuse the upcoming request. Participants pressed a key to continue to the listening part of this task. They listened to the invitation in one utterance with a blank screen in front of them. They replied orally to the invitation as suggested. Again, experimenter wrote down participants’ answers and audio recorded them. The time they took to respond was not measured since attention was given to the content of the answer.
2.4.2. Data coding and analysis

The Statistical Package for the Social Sciences (SPSS 18.0) was used to analyze data. An alpha level of \( p < .05 \) was chosen as the significance level for all analyses. Pragmatic comprehension was measured by accuracy and speed in the PLT. The filler items on the test were not taken into account for measurement. Accuracy scores were assigned the values 1 for correct answer to the yes/no question (at the end of the conversation) and 0 for an incorrect answer. For comprehension speed, the time it took for participants to press the key with the correct answer was considered. This reaction time was controlled for possible outliers by limiting it to the correct answers between 300 and 3500 milliseconds. A one way repeated measures ANOVA with three levels was calculated to establish the differences between the types of refusals selected. Descriptive statistics (mean, standard deviation) were also calculated for performance and speed of comprehension.

For the picture-naming task, items were marked correct or incorrect according to the name given by participants. They had to provide the most frequent name chosen from the norms. Reaction time was also measured. A two-way repeated measure analyses was used to analyze this data in relation to the frequency and animacy of the word.

Data for the production task was coded according to the frequency of use of an adjunct to a refusal, a head act (use of \textit{not}) and a supporting move (excuse) by participants in the 6 invitations that required refusals. Acceptance answers were not coded. A Pearson correlation \((r)\) was calculated between the production of the head act and comprehension of refusals tasks, which measures the relationship between both tasks.
2.5. Results

Research question 1: Is there a difference in the comprehension of three different types of refusals to invitations in English (direct, indirect refusals with the use of downgraders and indirect refusals with the use of upgraders)?

Data analysis showed no significant difference in the accuracy of native speakers’ judgment of refusals, $F(2, 44) = 1.63, p = .21$. Although direct refusals showed the highest scores ($M = .99$), accuracy was also high for indirect refusals with the use of downgraders ($M = .97$) and indirect refusals with the use of upgraders ($M = .98$).

Regarding speed of comprehension, reaction time average was calculated. Results show that there was no significant difference between the types of refusals, $F(2, 44) = 1.65, p = .20$, with: direct ($M = 1352.07$), indirect refusals with the use of downgraders ($M = 1337.98$) and indirect refusals with the use of upgraders ($M = 1255.37$) not differing from each other.

Overall, performance of native speakers in the three types of refusals to invitations was accurate and fast. There was no difference in either accuracy or reaction time for the two types of indirect refusals—those with downgraders and those with upgraders. It can be said that there is no difference in the comprehension of both indirect refusal types for native speakers of English; they can equally judge them in an accurate and fast manner. The same happens for the comprehension speed, the difference in performance is of less than 100 milliseconds with the shortest time average for the indirect refusal with the use of upgraders. In this experiment, there is a chance of having experienced the ceiling effect, which in statistics refers to all participants having scored near the top. This could have happened due to different reasons: one is the participant group, native speakers, they all comprehended the items very easily; another reason is
that the items were very easy or obvious to understand for native speakers. This gave us the chance to rethink items for the main study and add new structures.

Research question 2: Is there a relationship between lexical processing and comprehension of refusals in English?

We first looked at the effects of item frequency and animacy on picture naming speed using a repeated measures analysis. Item frequency was found significant Greenhouse-Geisser corrected ($F(1,22) = 7.529, p < .004$), but animacy was not found to be significant ($F(1,22) = .255, p = .619$). Therefore, a Post Hoc analysis was done for frequency to determine the reaction time differences and the relationship between the frequency levels: high, medium and low (Bonferroni). The results showed that native speakers identified high frequency ($M = 1066.31$) and medium frequency items ($M = 1064.24$) significantly faster than low frequency items ($M = 1169.63$).

To examine the relationship between lexical processing and the accuracy of comprehension of direct and indirect refusals, separately by type, a Pearson correlation analysis between the picture naming task and the PLT was done with the data. No significant correlations were found between speed of lexical access and the accuracy of comprehension of refusals in English. This means that in native speakers, as fluent speakers of English, speed of lexical access is not a predictor of the comprehension of a refusal and vice-versa. They do not necessarily have to have the access to or search the language vocabulary to comprehend the types of refusals presented here correctly or at a faster pace.

Similarly, lexical access speed was not correlated with speed of pragmatic comprehension. No correlation was found significant for these two categories, which means that the speed of lexical access is not a predictor of the speed of comprehension and vice versa.
Research question 3: Is there a relationship between the comprehension and production of English refusals to invitations?

A correlation analysis between the production task and the PLT was done to determine the relationship of the production task with the comprehension task. Two correlations were significant: first, that of the production of the head act with the comprehension of the direct refusal response ($r = .46, p < .005$). This makes sense since a direct refusal response requires the presence of a head act within the sentence or utterance. Similarly, a significant negative correlation ($r = -.42, p < .005$) was found between the production of the head act and the comprehension of the adjunct to refusal (e.g. downgrader or upgrader) in initial position. This is also logical in the sense that the more frequent the speaker uses an adjunct, the less he/she tends to use a head act and then moves directly to the supporting move, or excuse in this case. Table 4 shows the correlation results.

Table 4. Relationship between comprehension and production

<table>
<thead>
<tr>
<th></th>
<th>Production of adjunct</th>
<th>Production of head act</th>
<th>Production of supporting move</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct refusal</td>
<td>$r = -.25$</td>
<td>$r = .46^*$</td>
<td>$r = -.18$</td>
</tr>
<tr>
<td>Indirect refusal downgrader</td>
<td>$r = .19$</td>
<td>$r = -.26$</td>
<td>$r = .14$</td>
</tr>
<tr>
<td>Indirect refusal upgrader</td>
<td>$r = .15$</td>
<td>$r = -.30$</td>
<td>$r = .17$</td>
</tr>
<tr>
<td>Adjunct (downgrader or upgrader)</td>
<td>--</td>
<td>$r = -.42^*$</td>
<td>$r = -.13$</td>
</tr>
<tr>
<td>Head act</td>
<td>--</td>
<td>--</td>
<td>$r = .24$</td>
</tr>
<tr>
<td>Supporting move</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

In conclusion, comprehension of refusals to invitations in English by native speakers was accurate and uniform in general as expected. There was no significant difference between directness and indirectness as well as in the types of indirect refusals (with the use of
downgraders or upgraders). Similarly, there was no significant difference regarding speed of comprehension; participants behaved very similarly in the accuracy task with a very small difference between the different types of refusals. This shows that native English speakers comprehend direct and indirect refusals with equivalent accuracy and speed as assumed.

Speed of lexical processing, as the cognitive task in the study, showed no significant relationship with comprehension accuracy of refusals in English. This means that access to vocabulary is not a predictor of refusal comprehension and vice versa in native speakers of English. Likewise, there was no relationship between lexical access speed and speed of pragmatic comprehension.

The production task intended to compare if there was a relationship between the comprehension and production of two types of refusals by native English speakers. This task presented evidence of how native speakers refuse an invitation. Results indicate that the more direct a speaker is when refusing, the more frequently he/she uses the head act with the negator not, and the easier and faster he comprehends them. The other important results indicate that when refusing in an indirect manner, a native English speaker makes more use of an adjunct (excuse) to mitigate his/her answer either upgrading or downgrading it; thus, he makes less use of the negator not. These production results are in line with the results by Beebe et al. (1990) and Félix-Brasdefer (2002) who established that U.S. English speakers do not use the direct form often and are specific and detailed when providing excuses for refusals.
CHAPTER THREE
MAIN STUDY

The pilot study showed that our tasks and methodology worked as we could test that the items were well understood and responded to by native speakers. We therefore expanded on that design for the main study. Specifically the pragmatic reasoning task was expanded to be a three by four (3x4) factorial design with two independent variables: politeness system and type of refusal. Politeness system had three levels: solidarity (i.e. friend), deference (i.e. acquaintance) and hierarchical (i.e. boss). Type of refusal now had four levels: direct refusals, indirect refusal with downgraders, indirect refusal with upgrader and implicatures. In addition to Native English Speakers (NES), Spanish-English bilinguals (SEB) also participated in the study. SEBs were divided into two groups according to their length of stay in the L2 environment: Spanish-English bilinguals with a shorter period of stay in the L2 environment (SEBS) and Spanish-English bilinguals with longer stay in the L2 environment (SEBL). This was done to get two different proficiency groups as length of stay and proficiency are usually correlated (Félix-Brasdefer, 2002; 2009; Garcia, 2004; Taguchi, 2011). Cognitive processing was measured through speed of lexical access and an additional measure of working memory capacity.

This time, the research hypotheses (RH) were stated according to the researcher interest in comparing SEB with NES behavior in the comprehension of pragmatics; that is, based on literature that states that native speakers and L2 learners differ in pragmatic behavior (Félix-Brasdefer, 2002, 2003, 2009; Taguchi, 2005, 2011). In addition, the inclusion of a new category of indirect refusals, the implicatures—which are shown as more difficult to comprehend—made us restate the hypotheses as follows.
Hypothesis 1: SEB will perform below NES in the pragmatic comprehension of English refusals. Within the Spanish-English bilinguals, the longer length of residence in the second language (L2) environment will facilitate pragmatic comprehension.

Hypothesis 2: Comprehension performance will differ by type of refusal, with order of difficulty, from low to high, being direct refusals, indirect refusals with upgraders, indirect refusals with downgraders and implicatures.

Hypothesis 3: Group and refusal type will interact in comprehension.

Hypothesis 4: Comprehension speed of English refusals by NES will be faster than comprehension speed of SEB. Within SEB, the longer length of residence in the target language environment will facilitate speed of pragmatic comprehension.

Hypothesis 5: Comprehension speed of English refusals will differ by type of refusal, with order of speed, from fastest to slowest, being direct refusals, indirect refusals with upgraders, indirect refusals with downgraders and implicatures.

Hypothesis 6: Group and refusal type will interact in reaction time.

We do not have any a priori predictions about the politeness systems (solidarity, deference or hierarchical system), on one side, and accuracy and comprehension speed, on the other side. We therefore will do exploratory analyses on this variable to examine any possible relationships.

In addition, we will analyze a possible relationship between comprehension and production of different types of English refusals, based on politeness system across groups of speakers. The cognitive variables (lexical access speed and WM) will be investigated as well as possible predictors of pragmatic comprehension of different types of English refusals in SEB groups.
3.1. Participants

38 American NES enrolled in psychology courses at an American university participated in the study as part of the requirements for their psychology courses. Their ages were between 17 and 26 years old, their average age was $M=20.28$ years old and none of them was bilingual. Some participants had exposure to a foreign language ($M=1.54$ years) in high school or college, with the majority having exposure to French ($n=10$), Spanish ($n=8$) or other languages (Vietnamese, Italian and German) ($n=3$).

In addition, 67 SEB living in the United States at the time of the study volunteered to participate in the study. They were adult native Spanish speakers from Latin America (Argentina, Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Puerto Rico, Dominican Republic, and Venezuela) who had been living in the United States for a period of time from 1 month to 32 years ($M=5.41$). The SEB were second language speakers of English and functional bilinguals; they were recruited by the researcher and voluntarily participated in the experiment. These were university students and community members contacted through friends of the researcher. As a form of reward for their participation, a $50$ gift card was raffled at the end of the experiment running among Spanish speaking participants.

These SEB provided their demographic and language background information. Age, family language background, current language environment, length of residence in the English speaking environment, years of schooling in English, and self-rating of their English language (overall and by skills) were the elements requested. Based on their years of living in the United States, participants were divided into two subgroups, of relatively equal sizes—the natural split was 3.5 years—those with less than 3.5 years of stay (Spanish English Bilinguals Short time:
SEBS from now on, n=33) and those with more than 3.5 years of stay (Spanish English Bilinguals Long time: SEBL, n=34). Table 5 shows the characteristics of the two SEB groups. While the two groups were equivalent on many of these variables, they were significantly different on the number of years of schooling in the United States (F(1, 65)=20.71, p<.001), the amount of English used daily (F(1, 65)=10.19, p<.005), and the perception of politeness in own country for refusing invitations (F(1, 65)=5.42, p<.05).

Table 5. Demographics of Spanish English Bilinguals (SEB)

<table>
<thead>
<tr>
<th></th>
<th>SEBS (&lt;3.5 years)</th>
<th>S.D.</th>
<th>SEBLs (≥ 3.5 years)</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>33</td>
<td></td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Average age of first arrival at the US</td>
<td>26.85</td>
<td>5.42</td>
<td>27</td>
<td>9.13</td>
</tr>
<tr>
<td>Average age of exposure to English in home country</td>
<td>10.27</td>
<td>4.30</td>
<td>10.85</td>
<td>3.18</td>
</tr>
<tr>
<td>Average years of English classes in home country</td>
<td>5.34</td>
<td>7.83</td>
<td>5.51</td>
<td>4.69</td>
</tr>
<tr>
<td>Average of weekly English hours in home country</td>
<td>5.26</td>
<td>4.72</td>
<td>3.62</td>
<td>5.16</td>
</tr>
<tr>
<td>Average years of schooling in the United States</td>
<td>1.78</td>
<td>1.51</td>
<td>4.79</td>
<td>3.50</td>
</tr>
<tr>
<td>Main language used at home: 1= English, 2= Spanish, 3= both,</td>
<td>2.09 (Spanish)</td>
<td></td>
<td>2.02 (Spanish)</td>
<td></td>
</tr>
<tr>
<td>Main language used at school: 1= English, 2= Spanish, 3= both</td>
<td>1.52 (English)</td>
<td></td>
<td>1.53 (English)</td>
<td></td>
</tr>
<tr>
<td>Percentage of English used in social life</td>
<td>38.48</td>
<td></td>
<td>46.18</td>
<td></td>
</tr>
<tr>
<td>Amount of English used daily (1= hardly ever, 5= always)</td>
<td>3.13</td>
<td></td>
<td>3.79</td>
<td></td>
</tr>
<tr>
<td>Amount of Spanish used daily (1= hardly ever, 5= always)</td>
<td>3.56</td>
<td></td>
<td>3.59</td>
<td></td>
</tr>
<tr>
<td>Self-rating of overall English ability (1= poor, 5= excellent)</td>
<td>3.46</td>
<td></td>
<td>3.73</td>
<td></td>
</tr>
<tr>
<td>Self-rating of English speaking skills (1= poor, 5= excellent)</td>
<td>3.25</td>
<td></td>
<td>3.60</td>
<td></td>
</tr>
</tbody>
</table>

(Table 5 cont’d.)
<table>
<thead>
<tr>
<th></th>
<th>SEBS (&lt;=3.5 years)</th>
<th>S.D.</th>
<th>SEBLs (&gt;= 3.5 years)</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-rating of English listening skills (1= poor, 5= excellent)</td>
<td>3.85</td>
<td></td>
<td></td>
<td>4.05</td>
</tr>
<tr>
<td>Self-rating of English reading skills (1= poor, 5= excellent)</td>
<td>3.98</td>
<td></td>
<td></td>
<td>4.19</td>
</tr>
<tr>
<td>Self-rating of English writing skills (1= poor, 5= excellent)</td>
<td>3.35</td>
<td></td>
<td></td>
<td>3.59</td>
</tr>
<tr>
<td>Comfort in American culture (1=not comfortable, 5 very comfortable)</td>
<td>3.97</td>
<td></td>
<td></td>
<td>4.21</td>
</tr>
<tr>
<td>Politeness perception of Americans for refusing invitations (1= not polite, 5= very polite)</td>
<td>4.20</td>
<td></td>
<td></td>
<td>3.84</td>
</tr>
<tr>
<td>Politeness perception of own country for refusing invitations (1= not polite, 5= very polite)</td>
<td>3.50</td>
<td></td>
<td></td>
<td>4.01</td>
</tr>
</tbody>
</table>

3.2. Stimuli

For the main study, the stimuli were expanded with an extra category of refusals, implicatures, which represent a higher degree of difficulty since its indirect meaning is nonconventional; it is implied. The stimuli still included direct refusals, indirect refusals with downgraders and indirect refusals with upgraders in addition to the distractors. Similarly, two politeness systems were added to that of friend (-power, -Distance): hierarchical (+Power, +/-Distance), the figure chosen to represent this system is a boss, and deference (-Power, +Distance), the figure for this system is an acquaintance. These changes are described below.

3.2.1 Pragmatic Listening Task (PLT)

For the main study, the (PLT) used in the pilot study was adapted to have 73 items distributed as follows: 1 practice item, 9 direct refusal dialogs, 9 indirect refusal dialogs with downgraders in the initial position, 9 indirect refusal dialogs with upgraders in the initial position, 9 refusal dialogs with implicatures, 9 indirect acceptance items with implicatures.
(distractors), 9 direct acceptance items (distracters) and the 18 (positive and negative) opinion items with implicatures used in the pilot study. The direct negation is presented with two discourse markers (I’m sorry... No...) along with the head act: I can’t; one without it: That’s not possible for me..., and a reason or explanation for refusing: e.g. I have other plans. The indirect refusals, were also presented in three parts, with downgraders, upgraders and implicatures. In the first case, three downgraders were used (I’d love to, but... Thanks for the invitation, but... That’s a good idea, but...). Three upgraders were also used (Actually,... Well... uh... Unfortunately...).

In addition, implicatures were added to represent a higher degree of difficulty since they show nonconventional indirect meaning. That is, in the case of the conversation: A: Can you give me a ride after class? B: I’ll stay in the library., the answer expresses an indirect refusal, which is implied.

To give uniformity to the task, the text in all these items was modified from the one used in the pilot study to have four dialog lines between a female and a male voice. Every dialog was written to last from 10-12 seconds and they all were recorded by the same native English speakers of American English. In addition, the same 18 filler items in the pilot study were used in the main study. Table 6 below illustrates the dialogs for the PLT and appendix D shows the PLT in full length.

Table 6: Sample dialogs for the PLT

<table>
<thead>
<tr>
<th>Type of refusal</th>
<th>Sample dialog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refusals to invitations—direct</td>
<td>Ann: Hey, Ross. How ya doing? Ross: Hi Ann. OK, thanks. What’s new? Ann: Now much...well, there’s a new exhibition at the museum. I’m going on Saturday, do you want to join me? Ross: I’m sorry. I can’t. I have other plans for that day. Q: Is Ross going to the museum?</td>
</tr>
</tbody>
</table>

(Table 6 cont’d.)
<table>
<thead>
<tr>
<th>Type of refusal</th>
<th>Sample dialog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect refusals to invitations—</td>
<td></td>
</tr>
<tr>
<td>downgraders</td>
<td></td>
</tr>
<tr>
<td>Kim: Hi Paul. What are you up to?</td>
<td></td>
</tr>
<tr>
<td>Paul: Not much. How about you?</td>
<td></td>
</tr>
<tr>
<td>Kim: Well, doing good. You know,</td>
<td></td>
</tr>
<tr>
<td>everybody is talking about this new</td>
<td></td>
</tr>
<tr>
<td>play at the theatre. Jane and I are</td>
<td></td>
</tr>
<tr>
<td>gonna see it on Friday. Do you wanna</td>
<td></td>
</tr>
<tr>
<td>go?</td>
<td></td>
</tr>
<tr>
<td>Paul: I’d love to but I bought tickets</td>
<td></td>
</tr>
<tr>
<td>for the movies online.</td>
<td></td>
</tr>
<tr>
<td>Q: Is Paul going to the play?</td>
<td></td>
</tr>
<tr>
<td>Indirect refusals to invitations—</td>
<td></td>
</tr>
<tr>
<td>upgraders</td>
<td></td>
</tr>
<tr>
<td>Mary: Hey John. You’re out early today.</td>
<td></td>
</tr>
<tr>
<td>John: Hey, Mary. My class just got</td>
<td></td>
</tr>
<tr>
<td>cancelled. What are you doing?</td>
<td></td>
</tr>
<tr>
<td>Mary: I’m heading to the gym. Do you</td>
<td></td>
</tr>
<tr>
<td>wanna come with me?</td>
<td></td>
</tr>
<tr>
<td>John: Actually, I have too much work</td>
<td></td>
</tr>
<tr>
<td>to do.</td>
<td></td>
</tr>
<tr>
<td>Q: Is John going to the gym?</td>
<td></td>
</tr>
<tr>
<td>Implicatures</td>
<td></td>
</tr>
<tr>
<td>Abby: Hey Andrew. What’s up?</td>
<td></td>
</tr>
<tr>
<td>Andrew: Not much. What are you up to?</td>
<td></td>
</tr>
<tr>
<td>Abby: I’ve been working on this paper</td>
<td></td>
</tr>
<tr>
<td>all day. I’m tired. I’m going to the</td>
<td></td>
</tr>
<tr>
<td>restaurant around the corner. Do you</td>
<td></td>
</tr>
<tr>
<td>wanna come?</td>
<td></td>
</tr>
<tr>
<td>Andrew: I still have chicken and rice</td>
<td></td>
</tr>
<tr>
<td>from yesterday.</td>
<td></td>
</tr>
<tr>
<td>Q: Is Andrew going to the restaurant?</td>
<td></td>
</tr>
</tbody>
</table>

### 3.2.2. Picture naming task

To measure speed of lexical access the same picture naming task from the pilot study was used in this main task. The same 28 pictures were used as in the pilot study with the three levels of frequency: high, medium and low.

### 3.2.3. Size judgment task.

To measure working memory capacity a size judgment task (McDonald, 2006) was implemented in English for the NS and in both English and Spanish for the SEB. This task consisted of sets of words representing objects and animals that participants were to organize.
from smallest to largest. That is to say, if participants were given: “building, bird, computer”, they were to report: “bird, computer, building”. Words were randomly organized per list in the task; however, they were presented in the same order for every participant. The first three sets had three words; the second three sets had four, five and six words consecutively to complete four sets and a total of 54 words. Each word was recorded by a native speaker and digitized.

3.2.4. Oral production task.

The oral production task from the pilot study was adapted to elicit refusals to invitations. The instrument consisted of 14 items distributed as follows: 2 practice items, 9 invitations to be refused and 3 invitations to be accepted by participants. They were distributed evenly according to power relationships. That is to say, of the 12 items, 4 were used for boss, 4 for acquaintances, and 4 for friends; there were 3 refusals and 1 acceptance per power type. No type of refusal was chosen for the answer since that was the object of study—i.e., their spontaneous answers. As in the pilot study, each item presented a scenario with a suggestion to refuse or accept, and an oral invitation to be listened to. Participants were instructed to orally respond to the invitation. Appendix E shows the items for this production task.

3.2.5. Language contact questionnaire

A language contact form was designed to keep record of SEB personal information regarding country of origin, age of arrival and length of residence in the United States, and years of schooling in English at home and in the United States. In addition, self-rating of their English and Spanish abilities and their current amount of daily use was requested. Similarly, participants provided information about family’s language background, current language environment at home and at work, and general questions about comfortability in the American culture and
perception of politeness and differences between American culture and their own culture. Appendix F shows the complete language contact form.

3.3. Data collection

3.3.1. Procedure

In the main study, the complete experiment took about 55 minutes to complete. Participants signed the consent form and started by taking the PLT. Since there were 64 dialogs in the instrument, the task was divided into thirds (21 dialogs per third). Then participants were presented each third randomly by the Super Lab software. The procedure for each dialog was the same as the one for the pilot study.

Immediately afterwards, the size judgment test was administered. At this time, all participants completed the task in English. Instructions were presented in written form as well as a practice example. Participants listened (no written form was provided) to the sets of words one time. Subjects were asked to repeat the words aloud following the order from smallest to largest. Then, a second set of the PLT, with 21 items, was presented with the same methodology as the first one.

After that, the picture naming task was administered. For this, the picture appeared on the screen, participants named the picture aloud, then a blank screen appeared and they had to press a key to move to the next item. The experimenter wrote down participants’ answers, which had been audio recorded and checked later. Similarly, the time taken to initiate naming the picture was recorded by the computer.

Then the third set (21 items) of the PLT was administered with the same procedure as in the previous sets. After this, the size judgment task was done in Spanish for the SEB; it was presented exactly as the one in English. NES were not given this task.
After the size judgment task (or the PLT for NES), the oral production task was administered. As in the pilot study, each item presented a scenario with a suggestion to refuse or accept, and an oral invitation to be listened to. Participants pressed a key to continue to the listening part of this task. They listened to the invitation in one utterance with a blank screen in front of them. They replied orally to the invitation as suggested. Participants were instructed to orally respond to the invitations, and the experimenter recorded and wrote down their answer. Written register was verified later. In this case, the content of the answer as well as the time they took to initiate their response was measured. Immediately after this, the interview about demographic information took place orally with written record by the researcher.

3.3.2. Data coding and analysis

Coding for the PLT was done in the same way as for the pilot study. Reaction time was controlled for possible outliers by limiting it to the correct answers between 300 and 3500 milliseconds. To analyze these two variables, accuracy and speed of comprehension, a repeated measures ANOVA was conducted to establish the differences between the independent variables: 1) types of refusals: direct refusals, indirect refusals with downgraders, indirect refusals with upgraders and implicatures; 2) politeness system: solidarity system—friend, deference system—acquaintance, and hierarchical system—boss, and 3) groups selected according to the amount of language contact: Spanish English Bilinguals living the English speaking environment for longer time (SEBL), and Spanish English Bilinguals living the English speaking environment for a shorter period of time (SEBS) and native English speakers (NES). Descriptive statistics (mean and standard deviations) were also calculated for accuracy and speed of comprehension.
The picture naming task was coded as in the pilot study; items were marked correct or incorrect according to the name chosen from the norms. Reaction time was also measured and a two-way repeated measure analysis was used in relation to the frequency and animacy of the word. In the size judgment task, links between words repeated in the correct order received one point per word. The range of possible scores was between 0 and 42 links.

Data for the production task was coded by the researcher according to the frequency of use of refusal structures—that is, direct refusals, indirect refusals with downgraders, indirect refusals with an upgrader, and implicatures—following the pattern of strategies in Appendix A. This was done for each of the three power levels. In this coding, a value of 1 was assigned to any type of refusal, or adjunct to refusal, uttered by the participant that match the categories even though there was more than one type in the utterance. For example, in the utterance *Uhh... no, thank you. I don't like ice skating*, three points are given such as: 1 upgrader: uh, 1 direct: no, 1 downgrader: excuse.

3.4. Results

The main purpose of this study is to observe the pragmatic comprehension of the speech act of refusals in SEB in comparison to NES. The relationship to the production of refusals, and other variables (external and cognitive) that can affect this performance was analyzed as well. Analysis of results is hypotheses driven and classified according to main effects, which is the difference between groups, and interactions, which is how two variables differentially act in combination. Results are presented in narrative, tables and figures, comparing SEB performance to NES. A discussion of results will be presented in a further chapter.
3.4.1. Accuracy across language groups, refusal type and politeness system

There was a main effect of group, $F(2, 102) = 9.20, p < .001$. The results of a post-hoc Tukey test showed that the NES ($M = .99$) had a significant difference in comprehension from the SEBS ($M = .94$), but not with the SEBL ($M = .96$). These findings partially confirm hypothesis 1, in which it was predicted that SEB performed below NES; however, only the SEBS differed from the NES group.

As predicted in hypothesis 2, there was a main effect of type of refusal, Greenhouse-Geisser corrected, $F(2.17, 221) = 25.63, p < .001$. Results of a Bonferroni comparison showed that performance on three of the refusal types all differed from each other; direct refusals ($M = .99$), indirect refusals with downgraders ($M = .95$) and implicatures ($M = .93$). On the other hand, indirect refusals with upgraders ($M = .99$) did not differ from direct refusals, but did differ from implicatures and downgraders. The order of difficulty was the one predicted in hypothesis 2, and the hypothesis was partially confirmed in that the only type that did not differ was the indirect refusals with upgraders.

Hypothesis 3 confirmed that there was a significant interaction between group and refusal type, Greenhouse-Geisser corrected $F(4.33, 221) = 4.38, p = .001$. However, when looking at interactions by group effects within each type of refusal, the hypothesis is partially confirmed. Results follow. Figure 1 below illustrates the interaction.

Regarding direct refusals, there was not a main effect of group $F(2,102) = 2.56, p = .09$. Therefore, the three groups did not significantly differ from each other (NES $M = 1.00$, SEBL $M = .99$, SEBS $M = .98$). This means that all groups performed the same in this type of refusals. For indirect refusals with upgraders, there was not a main effect of group $F(2,102) = 2.43, p = .09$. The three groups did not differ from each other (NES: $M = .99$, SEBL: $M = .99$, SEBS: $M = .98$).
For indirect refusals with downgraders, there was a main effect of group $F(2, 102) = 3.62, p < .03$. The results of a post-hoc Tukey test showed that the NES group ($M = .98$) differed from the SEBS ($M = .93$). The SEBL group did not differ from the previous groups ($M = .94$).

For implicatures, there was a main effect of group $F(2, 102) = 9.37, p < .001$. The results of a post-hoc Tukey test showed that the SEBS ($M = .87$) differed from the NES ($M = .97$) and the SEBL ($M = .94$). These latter two groups did not differ from each other.

**Figure 1. Pragmatic accuracy across language groups and refusal type**

In addition, we had no prediction about a relationship between accuracy of comprehension and politeness systems; nevertheless, we found a significant interaction between refusal type and politeness systems, Greenhouse-Geisser corrected $F(3.86, 394.10) = 12.63, p < .001$. This interaction was investigated by looking for the effect of politeness level within each type of refusal. Figure 2 below shows the interaction found.

In the direct refusal performance, there was no main effect of politeness system, $F(2, 208) = .665, p = 52$, politeness systems were not significantly different across types of refusal (boss: $M = 1.00$, acquaintance: $M = .99$ and friend $M = .99$). Likewise, the indirect refusals with
upgraders, there was no main effect of politeness level $F(2, 208) = .25, p = .78$ (boss: $M = .99$, acquaintance: $M = .98$ and friend $M = .99$).

Figure 2: Pragmatic accuracy across politeness systems and refusal type

In the indirect refusals with downgraders, there was a main effect of politeness system $F(2, 208) = 6.00, p < .003$. Results of a Bonferroni comparison showed that boss politeness ($M = .98$) differed significantly from acquaintances ($M = .93$) and friends ($M = .94$). In addition, there was a main effect of politeness system in the implicatures performance, Greenhouse-Geisser corrected $F(1.80, 187.19) = 15.32, p < .001$. Results of a Bonferroni comparison showed that boss politeness ($M = .86$) differed from both acquaintance ($M = .96$) and friend politeness levels ($M = .96$). Effect of boss politeness was opposite in these two types of refusals, higher with the indirect refusals with downgraders and lower with the implicatures. In the first case, it might be due to the type of downgraders selected, which were distributed equally within boss, friend and acquaintance systems. Perhaps they were taken as more appropriate for a boss. In the second case, it might have to do with the power relationship between a boss and the employee, in which case it would be unusual to use an implicature with the boss. In addition, implicature items were
not pretested in the pilot study; so it is possible that they differed in difficulty across the random assignment to politeness levels.

3.4.2. Reaction time across language groups, refusal type and politeness system

As predicted in hypothesis 4, there was a main effect of group \( F(2, 101) = 20.22, p < .001 \). The results of a post-hoc Tukey test showed that the NES \((M = 1614.88)\) had faster reaction times than both the SEBL \((M = 2618.15)\) and SEBS \((M = 2479.78)\). NES differed from both SEBL and SEBS, while both groups of SEB did not differ from each other.

There was a main effect of type of refusal reaction time, Greenhouse-Geisser corrected \( F(2.76, 279) = 45.56, p < .001 \). Results of a Bonferroni comparison showed that reaction time on three of the refusal types differed from each other as predicted in hypothesis 5; direct refusals \((M = 2072.06)\), indirect refusals with downgraders \((M = 2220.24)\), implicatures \((M = 2504.11)\). Indirect refusals with upgraders \((M = 2154.05)\), only differed from implicatures. The order of speed of comprehension was also predicted in hypothesis 5. Unlike in the pragmatic comprehension, there was no interaction in the reaction time between group and refusal type as predicted in hypothesis 6.

We had no prediction about politeness system comprehension speed; however, we did find a main effect \( F(2, 202) = 11.55, p < .001 \). Results of a Bonferroni comparison showed that reaction time on the friend \((M = 2158.07)\) system of politeness differed from acquaintance \((M = 2247.83)\) and boss \((M = 2306.92)\) types, which did not differ from each other.

In addition, in the main analysis, there was also a significant interaction between refusal type and politeness system reaction time, Greenhouse-Geisser corrected \( F(5.26, 531.63) = 10.58, p < .001 \). This interaction was investigated by looking for politeness system within each type of refusal, which is described below and shown in figure 3.
There was a main effect of politeness system in the direct refusal reaction time $F(2, 208) = 3.85$, $p < .02$. Results of a Bonferroni comparison showed that acquaintance politeness ($M = 2142.23$) differed from boss politeness ($M = 1986.10$, $p < .05$). Friend politeness ($M = 2012.08$) did not significantly differ from the other politeness system types.

A main effect of politeness system was found in the indirect refusals with upgraders, Greenhouse-Geisser corrected $F(1.85, 192.56) = 6.65$, $p < .002$. Results of a Bonferroni comparison showed that acquaintance politeness level ($M = 2212.48$) differed from friend politeness ($M = 2004.06$). Boss politeness ($M = 2161.88$) did not differ from the previous two politeness systems. There was no main effect of politeness system in the reaction time of indirect refusals with downgraders (friend: $M = 2124.13$, acquaintance: $M = 2255.33$ and boss: $M = 2196.04$).

There was a main effect of politeness system in the implicatures reaction time, Greenhouse-Geisser corrected $F(1.82, 187.51) = 26.74$, $p < .005$. Results of a Bonferroni comparison showed that boss politeness ($M = 2767.10$) differed from both acquaintance ($M = 2155.33$) and friend politeness ($M = 2296.10$).
2270.25) and friend politeness systems (M = 2376.24) which did not differ from each other. Boss politeness differs from the other two types’ reaction time may be due to the type of refusal—implicature. That is, the power and distance between speakers is important here and it is not common to use implicatures with the boss which represents +Power/+Distance. In addition, boss items were not piloted, so maybe the cause for this difference is that the particular items used for the boss politeness level were not comprehended as well and thus, they took longer to elicit a response.

3.4.3. Production. Refusal type vs. politeness systems across language groups.

We did some exploration on participants’ behavior regarding refusal production. General information on descriptives for frequency of use, main effects and interactions were calculated.

Initially, there was a main effect of group, $F(2, 102) = 5.35, p < .05$, proving that groups differed in the production of refusals. When looking at groups, NES ($M = .73$) differed from SEBS ($M = .92$), but did not differ from SEBL ($M = .85$), while both groups of SEB did not differ from each other.

There was also a main effect of refusal type production, Greenhouse-Geisser corrected $F(2.317, 236.295) = 193.664, p < .001$, which reflects that production varies according to the type of refusal. Results of a Bonferroni comparison, in this case, show that direct refusal was the type of refusal most often produced by all speakers ($M = 2.16$), which was produced significantly more often than indirect refusals with downgraders ($M = .59$), indirect refusals with upgraders ($M = .32$) and implicatures ($M = .25$). In addition, production of indirect refusals with downgraders significantly differed from implicatures.

Similarly, an interaction was found between refusal type and group Greenhouse-Geisser corrected $F(4.633, 236.295) = 2.528, p < .05$. Looking at groups separately, it was found that for
production of direct refusals, all groups were not significantly different (NES $M = 2.13$, SEBL $M = 2.12$, SEBS $M = 2.22$), that is, no main effect was found $F(2, 102) = .180, p = .83$. Likewise, the production of indirect refusals with upgraders showed no significant difference by group (NES $M = .24$, SEBL $M = .29$, SEBS $M = .44$); thus, no main effect again $F(2, 102) = 1.520, p = .22$. These results mean that all groups produce direct refusals frequently; the opposite happens with indirect refusals with upgraders.

For indirect refusals with downgraders, there was a main effect of group $F(2, 102) = 8.019, p < .001$, NES (NES $M = .23$) differed from both SEBL ($M = .76$) and SEBS ($M = .83$); the two SEB groups did not differ from each other. Clearly, SEB show higher production of indirect refusals with downgraders, maybe due to cultural reasons, or to save face with people from a different culture. Production of implicatures showed no significant difference between groups $F(2, 102) = 1.007, p = .37$; that is, groups behaved alike (NES $M = .33$, SEBL $M = .23$, SEBS $M = .19$). Figure 4 below illustrates the interaction.

Figure 4. Production across refusal type and language groups
No main effect of politeness system was found $F(2, 204) = .591, p = .55$. Similarly, no interaction was found between politeness system and group $F(4, 204) = .591, p = .67$. Nevertheless, an interaction was found between production of refusal type by politeness systems, Greenhouse-Geisser corrected $F(5.166, 526.895) = 4.711, p < .001$. Figure 5 below shows the interactions of type by politeness system.

**Figure 5.** Production across refusal types and politeness systems

From that interaction, when analyzing types of refusal separately, the production of direct refusal across politeness systems was significant, Greenhouse-Geisser corrected $F(1.853, 188.967) = 7.92, p < .001$; results of a Bonferroni comparison show that acquaintance politeness level was the type mostly produced ($M = 2.40$) and significantly differed from the friend ($M = 2.10$) and boss politeness levels ($M = 1.97$). These last two systems did not differ from each other. No significant effect was found for politeness systems in the indirect refusals with upgraders $F(2, 204) = 1.32, p = .27$, which are not different from each other (friend $M = .32$, acquaintance $M = .27$, boss $M = .39$). The same happened with indirect refusals with downgraders $F(2, 204) = 2.33, p < .10$, (Friend $M = .62$, acquaintance $M = .49$, boss $M = .69$).
Finally, no significant effect of politeness system for implicatures was found $F(2, 204) = .94, p = .39$, (Friend $M = .30$, acquaintance $M = .25$, boss $M = .20$).

### 3.4.4. Cognitive variables

Two cognitive variables were analyzed: speed of lexical access and working memory capacity, and correlated with the pragmatic comprehension and production variables. Results are shown below.

#### 3.4.4.1. Lexical access speed

A repeated measures analysis was calculated for picture naming reaction time. Only correct items were analyzed. There was a main effect of group $F(2, 89) = 23.07, p < .001$. Results of a post-hoc Tukey test showed that the NES ($M = 1044.64$) had faster lexical access than, and differed from, both the SEBL ($M = 1333.60$) and SEBS ($M = 1384.05$) who did not differ from each other.

There was a main effect of item frequency, Greenhouse-Geisser corrected $F(1.310, 116.633) = 42.72, p < .001$. Results of a Bonferroni comparison showed that in the reaction time on the three frequency types low frequency items ($M = 1440.19$) was slower than both mid frequency items ($M = 1155.71$) and high frequency items ($M = 1166.41$). Low frequency items were significantly different from medium and high frequency items which did not differ from each other.

There was a significant interaction between group and item frequency $F(4, 178) = 5.255, p = .001$. This interaction was investigated by looking for group effects within each type of frequency. See figure 6 below. In all frequency items, NES were faster than SEB. Regarding high frequency items, the NES group was the fastest to name the items ($M = 1044.36$) followed by the SEBL ($M = 1193.26$) and the slowest group was the SEBS ($M = 1261.59$). In the medium
frequency items, the same case occurred, the NES group was the fastest to name the items (M = 977.87) followed by the SEBL (M = 1226.79) and the slowest group was the SEBS (M=1262.44). This interaction is seen in figure 6 below.

Figure 6. Lexical access speed across groups

The low frequency items maintained the same order of frequency for lexical access speed, the NES group was the fastest to name the items (M = 1111.69), then the SEBL (M = 1580.74) and the slowest group was again the SEBS (M = 1628.12). In this case, although the interaction follows the same pattern as the previous ones, it is more extreme for low frequency items.

In addition, a correlation analysis was done with all participants to determine the relationship of the PLT accuracy with the speed of lexical access. Significant negative correlations occurred between accuracy in the comprehension of implicatures (r = -.26, p < .001) and refusals with upgraders (r = -.21, p < .005) and lexical access speed of high frequency items, and comprehension of implicatures (r = -.38, p < .001), refusals with downgraders (r = -.24, p < .005) and refusals with upgraders (r = -.31, p < .001) with lexical access speed of medium
frequency items. This means that the faster they access lexicon, the more accurate they are to comprehend these types of refusals and vice versa.

Doing a separate analysis by groups, the NES had a significant correlation on the comprehension of implicatures with the lexical access speed to low frequency words ($r = .35, p < .05$). No correlations were found for the SEBL group. When correlating these same categories for SEBS, negative significant correlations occurred between comprehension of indirect refusals with upgraders ($r = -.50, p < .001$) and implicatures ($r = -.39, p < .05$), and the lexical access speed to medium frequency words.

### 3.4.4.2. Working memory capacity

A univariate between subjects ANOVA was done to compare group performance on the size judgement task, measuring working memory capacity in English. Linking between words was analyzed. A main effect of group was found $F(2, 102) = 21.51, p < .001$. Results of a post-hoc Tukey test showed that the NES ($M = 30.37$) had better working memory than both the SEBL ($M = 24.18$) and SEBS ($M = 23.42$), which did not differ from each other. SEB groups did not differ from each other in the size judgement task in Spanish either.

A correlation analysis was done to determine the relationship of the PLT accuracy with working memory capacity (WM). For all groups together, one significant correlation was found between comprehension of indirect refusals with upgraders and WM capacity in English ($r = .21, p < .05$). This means that there is a positive association between these two variables; thus, high WM capacity, represents better comprehension of indirect refusals with upgraders. Analyzing groups separately, in the NES, comprehension of implicatures showed a significant relationship with WM capacity ($r = .34, p < .05$). No relationship was shown for SEBL. In the case of SEBS, there is a significant relationship between working memory in English ($r = .40, p < .05$) and
comprehension of indirect refusals with upgraders. This means that higher WM capacity, the better comprehension of this type of refusals.

3.4.4.3. External variables, lexical access speed and working memory capacity

A correlation analysis was also done, with SEB speakers only, to determine the relation between the speed of lexical access and the individual difference variables, such as: age, self-rated fluency in both languages, hours of exposure to both languages, and amount of daily use of both languages. Results show that in the SEBL group, significant negative correlations occurred between the age of exposure to English and the lexical access speed of high frequency items \( (r = -0.36, p < .05) \). This means that the older their age of exposure to their L2, the faster lexical access speed. Another important correlation for this group is between their self-rated English listening skills and high frequency \( (r = 0.36, p < .05) \) and low frequency \( (r = 0.37, p < .05) \) items. Thus, the higher they rated themselves in their English listening skills, the slower they are to access lexicon of high and low frequency. In the SEBS group, there were significant negative correlations between their self-rating of English and the lexical access speed of high frequency items \( (r = -0.42, p < .05) \) and of medium frequency items \( (r = -0.43, p < .05) \). There were also significant negative correlations for this group between their self-rated English speaking skills and the speed of lexical access for high frequency items \( (r = -0.37, p < .05) \) and of medium frequency items \( (r = -0.53, p < .01) \). Their self-rated writing skills in English negatively correlated in a significant way with the speed of lexical access for high frequency items \( (r = -0.45, p < .01) \). All these negative correlations with self-rated scores for their general English, speaking and writing skills, show that the higher they rated themselves, the faster they are to access lexicon of high and medium frequency.
Similarly, working memory capacity in Spanish and English was correlated with some self-reported external variables for SEB. Significant correlations were found for WM in Spanish \( r = .36, p < .01 \) and English \( r = .48, p < .01 \) and the self-rating of their English speaking skills. Likewise, WM in Spanish \( r = .30, p < .05 \) and English \( r = .29, p < .05 \) was significantly correlated with their self-rating of their English listening skills. This means that both the higher they self-rated their English listening and speaking skills, the higher their working memory scores were in both languages.

### 3.5. Summary

As seen, results demonstrate that the variables analyzed in this study are predictors of pragmatic performance in bilinguals in general. Firstly, groups were divided according to the length of stay in the L2 environment. The study showed that, in the whole pragmatic comprehension task, length of stay in the L2 environment affects pragmatic comprehension. SEBS behaved differently than SEBL who behaved closer to NES. Length of stay also affected speed of comprehension according to groups. Native speakers were significantly faster than both groups of SEB.

In addition, type of refusal affected pragmatic performance and speed of comprehension. In general, direct refusals and indirect refusals with upgraders were the easiest and fastest type of refusals to comprehend. Type of refusal performance varied according to the group division. That is, for direct refusals and indirect refusals with upgraders all three groups behaved the same, no difference in comprehension was found, but in the more difficult refusal types, groups started to differ. In the indirect refusals with downgraders and in the implicatures, NES differed from the SEBS, but not from the SEBL, which provides evidence that the difficulty of a refusal—which in this case is determined by its indirectness—affects its comprehension in SEBS. There
was a relationship between pragmatic comprehension and politeness systems especially when analyzing groups separately. Pragmatic production also differed under the various politeness systems and types of refusals; also based on politeness system itself.

Cognitively, there was a difference in speed of lexical access between NES and SEB. Speed lexical access was fastest for NES followed by both groups of SEB who were not different from each other. Similarly, frequency of items in the task made a difference for speed of lexical access. Working memory had a relationship with pragmatic comprehension especially for the NES and the SEBS who relied on their memory capacity to perform the exercise. Similarly, from external variables, it was found that in SEB their higher self-rating of English skills had to do with their faster lexical access speed, and their higher rating in their listening and speaking skills, their higher working memory.
Pragmatic comprehension on the part of SEB can be predicted by different factors. This study allowed us to observe that the time of residence in the second language environment, the type of stimuli, the politeness relationship of speakers, individual differences in cognitive processes have an influence on bilingual pragmatic performance, specifically in the comprehension of the speech act of refusing. Pragmatic comprehension speed, on the other hand, is affected by length of residence and the politeness system.

In this chapter, a discussion of the previous results will be presented. This will be done first by noting the support, or lack thereof, for the hypotheses derived from the pilot study results and relating it to research done in the field. The discussion will cover the differences in pragmatic comprehension and production between NES and SEB, and their relationship with the other independent variables.

Hypothesis 1: SEB will perform below native English speakers in the pragmatic comprehension of English refusals. For Spanish-English bilinguals, the longer length of residence in the second language (L2) environment will facilitate pragmatic comprehension.

All groups performed near or at ceiling. High performance on the part of NES was expected from the results in the pilot study and Taguchi’s (2005, 2007) studies. SEB groups, however, were not expected to have such high comprehension accuracy. It was expected that both SEB groups would differ from NES. However only the SEBS who have spent shorter time in the L2 environment showed disadvantage against the SEBL and the NES. These results show the benefit of experiencing the L2 environment for a certain amount of time in the development of pragmatic competence. Previous experiments have found that the longer length of residence helps the language learner to improve not only their pragmatic skills (Félix-Brasdefer, 2002;
2009; Garcia, 2004; Taguchi, 2007; 2011; Rafieyan, 2015; Yamanaka, 2003) but also their linguistic aspect (Garcia, 2004) and pragmatic awareness (Bardovi-Harlig and Dörnyei’s, 1998). The length of residence represents not only direct exposure to the L2, but also opportunities of interaction with native speakers in daily life. Other researchers point out that individual differences such as the amount of contact and quality of input (Niezgoda and Röver, 2001; Taguchi, 2008a), pragmatic transfer and learner motivation (Wyner, 2014) combined to the length of residence that have a key role in the development of pragmatic skill.

Hypothesis 2: Comprehension performance will differ by types of refusal, with order of difficulty, from low to high, being direct refusals, indirect refusals with upgraders, indirect refusals with downgraders and implicatures.

For type of refusal, results showed that, direct refusals and indirect refusals with upgraders were easier to comprehend than the other indirect types of refusals, as predicted. This is reasonable since direct refusals include the not in the main answer and the refusals with upgraders, although indirect, present the upgrading words: Actually,..., Well... uh..., Unfortunately...) that anticipate a negative response to the elicitor of the action.

Indirect refusals with downgraders were more difficult than direct refusals and indirect refusals with upgraders, and finally implicatures were harder than all the other types in all groups as predicted. Indirect refusals with downgraders create an acceptance expectation due to the downgrading phrase I’d love to, which minimizes the speaker’s intention, and tend to confuse the hearer. It was the third hardest type of refusal to be comprehended. Implicatures show meaning that has to be interpreted since it is implied.
Our results align with previous research results, in that implicatures is the hardest type of structure to be comprehended and is differently comprehended from speech acts such as requests (Garcia, 2004).

Hypothesis 3: Group and refusal type will interact in comprehension.

Following the previous hypothesis, in the case of refusal types, all three groups behaved at ceiling in the direct refusals and indirect refusals with upgraders. There was no difference in comprehension in those two types of refusal which were the easiest to comprehend. Nevertheless, in the indirect refusals with downgraders and implicatures, differences were found such that for indirect refusals with downgraders SEBS differed from NES, and for implicatures, they differed from NES. Length of residence made a difference in the comprehension of these two types of refusals. In Taguchi’s studies (2005, 2007, 2008a, 2008b), L2 learners performed below NES and in a similar way. In this case, as mentioned above, there was a ceiling effect for two types of refusals; but for two other types, indirect refusals with downgraders and implicatures, we found support for the claim that length of residence has an effect on pragmatic comprehension.

As an exploratory question, we had no prediction about a relationship between accuracy of comprehension and politeness systems. No main effect was found of politeness systems, but an interaction was shown between refusal type and politeness system. Politeness systems did differ by type of refusals. In the case of direct refusals and indirect refusals with upgraders, which are the clearest cases of directness, all systems behaved equally. However, we should be careful in interpreting this effect due to possible ceiling effects. There was, however, a difference across politeness systems in the other two types of refusals. For instance, within the indirect refusals with downgraders, the boss politeness level was better comprehended than acquaintance
and friend politeness levels. This may be due to the type of downgraders chosen: *I’d love to, but... Thanks for the invitation, but... That’s a good idea, but...*, and the nature of the politeness system where the downgrading phrase softens the impact of a refusal to the boss than an implicature which might be confusing to the hearer. For implicatures, the boss politeness items were more poorly understood than for friend and acquaintance items. These results show a difference in comprehension in the boss category. That means that interaction within a hierarchical system (+Power, +/-Distance) affects pragmatic comprehension since one interlocutor uses +Power and the other does not.

In their study of pragmatic formulae, Beebe et al (1990), point out that when refusing a boss invitation to a party, American native speakers expressed gratitude more often than Japanese speakers of English. This might be applicable to a comprehension context where a type of negative politeness (i.e. showing deference) is recognized to protect face with the boss. This may underlie our findings above that boss politeness system was more difficult to comprehend than friend or acquaintance politeness level. Beebe et al (1990) also found that American speakers of English used apologies and alternative promises to refuse a boss invitation, so it is probable that, since our SEB behaved closely to NES, they were confused with the use of implicatures to refuse a boss’s invitation. Thus, as mentioned above, interaction—in this case comprehension—under the boss politeness system tends to be confusing and poorly understood to bilinguals.

**Hypothesis 4:** Comprehension speed of English refusals by NES will be faster than comprehension speed of SEB. For SEB, the longer length of residence in the target language environment will facilitate speed of pragmatic comprehension.
Both groups of Spanish speakers showed slower processing speed than native English speakers as predicted. In this case, both bilingual groups differed significantly from the NES but not from each other. That is, unlike with accuracy, pragmatic comprehension speed is different between NES and SEB groups; thus, length of residence in the target language environment has no effect on speed of comprehension. This goes in line with some of Taguchi’s results that claim that there is no relationship between comprehension accuracy and comprehension speed (2005; 2008b). In other studies, however, comprehension speed was related to pragmatic comprehension (Taguchi, 2007; 2008a), so there is need for further research that measures pragmatic accuracy and reaction time.

Hypothesis 5: Comprehension speed of English refusals will differ by types of refusal, with order of speed, from fastest to slowest, being direct refusals, indirect refusals with upgraders, indirect refusals with downgraders and implicatures.

In terms of comprehension speed, three of the refusal types differed from each other, from fastest to slowest in the predicted order: direct refusals, indirect refusals with downgraders, and implicatures. Indirect refusals with upgraders predicted to be third in speed did indeed differ from and were faster to process than implicatures, but did not differ from the other two types.

Hypothesis 6: Group and refusal type will interact in reaction time.

Although SEB groups performed different and more slowly than NES, and refusal types were comprehended in a different way, there was no interaction between these two variables. So, groups had no different reaction times across refusal types.

As a second exploratory question, we had no prediction about the effect of politeness systems on comprehension speed. Friend politeness level was found to be more quickly comprehended than acquaintance and boss levels. This might have to do with the fact that the
adjuncts to refusals selected were better identified by listeners within the solidarity system, rather than in the two other systems. Researchers (Beebe et. al., 1990; Félix-Brasdefer, 2008) claim that native Spanish speakers use elaborate and long reasons and native English speakers use general reasons and more formulas when declining invitations from friends.

In addition, an interaction was found between refusal types and politeness systems in comprehension speed. That is, politeness level differed in reaction time across the different refusal types, except in the indirect refusals with downgraders in which politeness level made no difference for response time. This is logical since the downgrader used was probably perceived as valid for any type of politeness system user. Boss politeness level, however, was comprehended the fastest under the direct refusal and the slowest under the implicatures. Within the direct refusal category, boss might have been the fastest politeness level to process due to the nature of the direct refusal that includes the discourse markers I’m sorry... No. which made participants react faster either because of the nature of the negation itself or because it is not a common structure used with the boss... In the implicatures, the boss category is the slowest due to the fact that an implicature is not a common structure used with a boss. The same happens with the indirect refusal with upgraders for the friend level where an upgrading word or phrase might be a little more formal than a direct refusal. In addition, the own nature of the refusal—and not the politeness system involved—might have made these two categories of refusal (direct and indirect with upgrader) the fastest, besides the fact that these items were probably easy to understand—at ceiling.

We also did some exploration on participants’ behavior regarding refusal production. Groups behaved differently in the production of refusals. SEB groups produced longer and more elaborated refusals than NES, and SEBS produced the most number of refusal formulas. Direct
refusals was the most produced refusal type by all groups. This could have occurred for NES because, as Félix-Brasdefer (2003, 2008) states, NES have preference for direct strategies when refusing, and maybe SEB have acquired the sociocultural competence to respond alike in these situations. Alternatively direct refusal was probably the easiest thing to say in a laboratory setting, and thus had high use in all groups.

Indirect refusals with downgraders, on the other hand, were highly produced by both SEB groups which differed from NES who did not produce it as often. This coincides with Félix-Brasdefer’s (2003, 2008) studies where Spanish speakers from Latin America were the group that produced the most indirect (and mitigated) strategies. Thus, this may be due to cultural differences, rather than second language ability.

Production of different types of refusal by politeness was found to be different. Only the direct refusals, in which the most produced politeness system was acquaintance, and was different from the other two types. It makes sense that speakers tend to be direct because in the acquaintance system there is +/- Distance, so participants might have seen it as –Distance which allows them to be more direct and produce fewer strategies.

The cognitive variables (lexical access speed and working memory) were investigated as well as possible predictors of pragmatic comprehension of different types of English refusals in SEB groups.

Unlike in Taguchi (2007, 2008a), in which no relationship was found between pragmatic accuracy and the cognitive variable lexical access speed, in this study, this variable was found to be a predictor of pragmatic comprehension accuracy. SEB groups in this experiment showed different lexical access speed from the NES. Both groups performed more slowly than the NES and they were not different from each other. In addition, low frequency items were more slowly
comprehended than mid and high frequency items by all groups. That is to say, SEB followed the same pattern as NES for the low and high frequency items.

Lexical access speed of high frequency items was found to be significantly related (in a negative way) to comprehension of some refusal types (implicatures, indirect refusals with upgraders), and of medium frequency items to some others (implicatures, indirect refusals with downgraders, and refusals with upgraders). This must be interpreted as that the faster the lexical access the easier or better pragmatic comprehension of these structures. Thus, the individual is retrieving lexicon in a faster way and s/he is comprehending the intention of the speaker correctly. These results contrast with Taguchi’s findings (2007, 2008b) in which lexical access does not correlate with pragmatic comprehension accuracy, but did correlate with pragmatic comprehension speed. Thus, in this study, the lexical access speed skill is related to pragmatic comprehension accuracy which involves efficient control of processing (Bialystok, 1990), that is, lower level processing (access to words) and higher level processing (pragmatic comprehension) interacting simultaneously.

When analyzed by groups, NES’s lexical access of low frequency words correlated in a positive way with implicatures, meaning that they are slower to access the lexicon, but are more accurate in comprehending the implicatures. Bialystok (1990) claims that control of processing results in fluent performance, involving selective attention as the key component. In this case, if distractors or irrelevant cues appear, attention will be lost and performance will not be automatic. Thus, being lexical access speed a predictor of pragmatic comprehension, NES perform better in the implicature comprehension but take longer time to process.

SEBS on the contrary, present a negative correlation between comprehension indirect refusals with upgraders and implicatures with lexical access speed of medium frequency words,
meaning that they can access words fast and comprehend refusals accurately and *vice versa*. As Taguchi (2007) points out, processing speed increases with L2 practice; at initial stages, learners retrieve language rules consciously; later with repeated practice, the rules become automatic or unconscious. This may be why we found no negative (or no) correlations within the SEBL group, because they are in the process of automatizing language through practice.

Similarly, in this study, the working memory capacity was a predictor of pragmatic comprehension. First of all, WM capacity in English was different between NES and both SEB groups, and WM capacity in Spanish showed no difference between the two Spanish speaking groups.

WM capacity was a predictor of pragmatic comprehension for one category, indirect refusals with upgraders, for all three groups of participants. This means better working memory, better comprehension of this type of refusals. When reviewing groups separately, in the NES group, working memory capacity was a predictor of comprehension of implicatures. From the SEB, only the SEBS group had a relation of better working memory capacity in English and in Spanish, meaning better comprehension of indirect refusals with upgraders. The better memory capacity the individual has, the better their pragmatic comprehension of indirect refusals will be. However, in studies such as Taguchi’s (2008b) on pragmatic comprehension, no relationship was found between working memory and pragmatic accuracy or speed of pragmatic comprehension. In our case, the correlation shows that WM memory is a predictor of pragmatic ability. Our subjects’ WM goes along with their pragmatic skills since, unlike Taguchi, both tasks were presented in an auditory way. From an individual differences approach, working memory was related to pragmatic comprehension; that is to say, groups behaved differently according to their language experience. An issue to consider here is that the task was presented in listening form, so
working memory could account for the listening comprehension process as well as for pragmatic processing.

In addition to the pragmatic results, external variables were correlated with lexical access speed of different types of frequency items. This analysis was done with SEB separately by group. In the SEBL, the use of their native language (Spanish) predicted speakers’ performance in lexical access. That is to say, the more the speaker uses Spanish in his/her daily life, the slower their lexical access in their second language. For SEBS, their English proficiency self-rating predicted their lexical access; in this case, the higher they rated themselves the slower their language processing. This might be due to some false confidence in the language that they lack, and they tend to anticipate to the information they hear and take longer to access high and mid frequency lexicon. Regarding length of stay in the language environment, the SEBL was faster than the SEBS group to name the three frequency type items. As expected, the length of stay in the English language environment is a predictor of processing speed.

WM in English and Spanish for SEB showed to be a predictor of their English listening and speaking skills according to their self-ratings; SEB can remember and repeat the words of the task in order. That means that they will have better listening and speaking abilities in English. It is normally more difficult to relate WM capacity to the listening skill because the memory capacity constrains the listening process; thus, L2 speakers have to process the information in real time (Taguchi, 2008b). According to Taguchi (2008b), these two cognitive variables, WM and lexical access together contribute to pragmatic comprehension in that they involve lower-order processing and allow the cognitive capacity to have high-order processing which is related to pragmatic processing.
CHAPTER FIVE
CONCLUSIONS

This study investigated the pragmatic comprehension and production of refusals by a group of SEB, who learned English as adults, in comparison with NES. It also considered length of residence, speed of comprehension, cognitive and external variables in their relation to pragmatic comprehension. General results show how bilingual speakers process pragmatic cues less accurately and slower than NES, and produce them in a different manner from the NES. Length of residency and types of refusals were key factors that affected refusal comprehension of SEB. Cognitive variables (i.e. lexical access and working memory) showed to be different between NES and SEB with shorter residency. Lexical access was related to pragmatic comprehension of indirect refusals with upgraders and implicatures in the SEB with shorter residency group; working memory was also related to the comprehension of indirect refusals with upgraders in this same group. Conclusions and limitations are presented in this chapter. Suggestions for further research and teaching implications are also presented.

5.1. Conclusions

Pragmatic competence (Bachman, 1990) involves the knowledge of language and its use in conversation; in L2 speakers, it has to do with the acquisition of both second language and pragmatic knowledge. In this study, SEBL demonstrated knowledge of the linguistic forms and their use in context as well as to recognize and interpret the speaker’s intention in social interactions. That is, they have acquired advanced pragmatic competence, which will be addressed further on. One of the explanations found in this study is that SEB benefit from spending longer time in the second language environment, for example, SEBL behaved closer to NES than to SEBS in pragmatic comprehension accuracy. Thus, length of residence in the L2 environment, as a variable to measure proficiency, affects pragmatic comprehension in
bilinguals. This goes in line with previous studies that found that the longer the residency in the target language setting, the better pragmatic development (Felix-Brasdefer, 2004; Matsumura, 2001) and awareness (Bardovi-Harlig and Dörnyei, 1998) was developed. In other studies where L2 learners spent less than six months of residence in the target language environment, no improvement (Taguchi, 2011) or lower accuracy (Taguchi, 2008a) than native speakers on pragmatic comprehension was found. In these cases, the period of stay was between four months and three years which probably did not provide enough contact with native speakers. This finding of lower performance in these studies mirrors our findings with the SEBS group in the present study. It is important to point out, however, that length of residence alone does not have the effect on bilinguals, it is the opportunities for interaction and frequent quality of contact with the language that allow pragmatic development.

The speech act of refusal is easiest to comprehend for all people if it is direct. It is not commonly measured in pragmatic studies of comprehension. For cultural reasons, the use of its indirect versions is necessary. In this study, it was shown that SEB had the same order of difficulty for comprehending and producing refusals as the NES; direct refusals were the easiest to comprehend, followed by indirect refusals with upgraders, in turn followed by indirect refusals with downgraders and implicatures. In regards to implicatures, previous studies have found conventional indirect refusals easier and faster (Taguchi, 2005, 2007, 2008a, 2008b, 2011) or different (Garcia, 2004) to process than implicatures. Our results followed the same pattern of comprehension as previous studies. In addition, when comparing groups, the SEBS had more difficulty in comprehension than the other groups, especially in the more indirect types, with the use of a downgrader and an implicature.
In the case of comprehension speed, both groups of SEB were slower and behaved closer among each other than NES. In addition, comprehension speed of all refusal types differed from each other in the order predicted. The order of difficulty for refusal types was chosen according to the internal structure of the refusal, being the easiest to comprehend the direct refusal and the most confusing the implicatures. Implicatures may be slower to process due to their implied nature where the speaker and the listener have to know the context of the conversation to be able to infer the real meaning of the utterance.

As Bialystok (1993) states in her two-dimensional model of pragmatic acquisition, L2 learners take longer to process a structure that is less conventional or requires processing beyond the linguistic knowledge. The delay in comprehension or the fact that SEB take longer time in processing the speech act supports Bialystok’s two-dimensional Model (1993), in which adult bilinguals have their L1 pragmatics and control their attention in their L2. That is to say, bilinguals can control their attention to the information that is important and need to decode to comprehend the message and that makes them respond slower, particularly for less conventional forms.

No relationship was found between comprehension speed of refusals and length of residence in the target language environment despite the fact that SEBL group were living in the United States for a minimum of 3.5 years. Previous research is contradictory in this respect. Some studies indicate no relationship between length of residence—in this case study abroad experience—and comprehension speed (Taguchi, 2011). Other studies (Taguchi, 2007; 2008a) show that L2 speakers of English’s comprehension speed improved from living for a period of time (4 months) in the L2 environment.
Politeness systems have been largely considered in pragmatic studies. As in most studies, classifying cues according to politeness levels showed differences across them (Garcia, 2004; Beebe et al., 1990; García, 1992; Félix-Brasdefer, 2002; 2003; 2004; VonCanon, 2006). Every culture responds in a different way to different systems of politeness; however, in this study, politeness levels only showed a difference under the most indirect types (indirect refusals with downgraders and implicatures). There is need for more research that considers level of politeness in pragmatic comprehension.

Lexical access speed was found to be a predictor of pragmatic comprehension accuracy. This is different from research by Taguchi (2007; 2008a; 2008b) who did not find a correlation between these two variables. First, Both the SEBL and SEBS showed slower lexical access speed than NES. More importantly, indirect refusal comprehension was directly related to the speed of lexical access. That is to say, faster language cognitive processing translated into a more accurate comprehension of indirect refusals and implied meaning.

Working memory capacity was better for NES than for both SEB groups. In addition, both groups of SEB did not differ in the working memory task in their L1 either. All groups’ working memory performance was related to comprehension of indirect refusals with upgraders; that is, better working memory led to better comprehension of these for all three groups of participants. For the NES group, working memory capacity was a predictor of comprehension of implicatures, and for the SEBS group, working memory capacity predicted their comprehension of the indirect refusals with upgraders. In previous studies (Taguchi, 2008b), working memory was measured in the L1 and not related to pragmatic comprehension, in this study, we could show that it is a predictor of comprehension for some indirect refusal types. The difference with Taguchi’s study might be in the type of working memory task administered; she used a visual
task and we used an aural task; that could have made participants rely more on their working memory capacity to answer the questions.

Finally, we examined the possible correlation between various experiential variables and ratings from our language use survey with the SEB participants and pragmatic language performance. No correlations were found for these variables.

These variables were also correlated with the cognitive variables, lexical access speed and working memory capacity. For the SEBL, age of exposure to English negatively correlated with lexical access speed; that is, the older they had exposure to English, the faster their speed to access lexicon. In addition, their self-rating on English listening skills correlated positively with lexical access speed of high and low frequency items. The higher they rated themselves, the slower they accessed lexicon. The opposite happened with the SEBS group, which showed negative correlations with their general English skills as well as their speaking and writing skills, meaning that the higher they rated themselves the faster their language access was.

Similarly, in the case of WM, for SEB, it was found that their self-rating of general English listening and speaking skills was predicted by working memory and vice versa. As seen, external variables within the language groups selected here were not predictors of pragmatic behavior; however, they were instead predictors of lexical access speed and working memory.

The findings in the present study add to the literature in the pragmatic field, specifically in the pragmatic comprehension of refusals since not much research has been done with refusals under this methodology. This study showed that L2 learners are able to master the pragmatics of refusals with longer times of residency. They probably do not process at the same speed rate as the NES but still can achieve the pragmatic competence in L2. In addition, L2 learners were shown to struggle more with harder indirect refusal types, which they will eventually master.
Results regarding accuracy, processing speed and cognitive variables are mixed in comparison to previous research (Garcia, 2004; Koike, 1996; Taguchi, 2005; 2008a; 2008b; Linck et. al., 2014). Thus, further research is needed with SEB and bilinguals of other languages to be able to make consistent conclusions about the comprehension of the refusal speech act. In addition, results of external variables and self-perception of participants about their language skills and their use in daily lives did not provide much information about their relation to participants’ pragmatic competence. There is need for more studies under this same methodology to be able to contrast results.

5.2. Limitations and future directions

This study investigated the pragmatic comprehension of SEB and their comparison to NES. Results presented important conclusions regarding differences between the two groups of SEB with the NES, the type of refusals used, and the cognitive variables measured. There were, however, some important limitations to consider.

The first issue to observe was the coding of the production data for all participants. The researcher was the only person who classified and coded the data following the pattern of strategies chosen for the dissertation (Appendix A) and classifying them into: direct refusals, indirect refusals with downgraders, indirect refusals with upgraders and implicatures. In this coding, a value of 1 was assigned to any type of refusal, or adjunct to refusal, uttered by the participant that match the categories, even though there was more than one type in the utterance. Although the criteria selected to assign categories and values to the utterances said by participants followed the pattern of classification chosen for the dissertation (Appendix A), we acknowledge this data should have had the coding/classification by, at least, one more rater. This would have allowed for an inter-rater reliability.
If these same categories were to be used, an alternative coding could also be tried by counting the first thing the person says, as well as the most frequent on every utterance. Other strategies (e.g. regret, excuse, alternative, wish, etc.) should be counted as separate items. Ideally, two extra raters who are native speakers would collaborate in categorizing production answers.

A limitation found in the results is the ceiling effect in the comprehension data for the NES and the SEBL in two types of refusals (i.e. direct refusals and indirect refusals with upgraders). Although NES were always higher than SEB, all groups had high performance in general. This might have occurred due to different reasons; one is that the speech act selected, refusals, was among the easiest to comprehend. In Taguchi’s studies, refusals were normally easier and faster to understand than requests (2005) and opinions (2007, 2008a, 2008b, 2011)—only in one study (Taguchi, 2007) refusals were below opinion items for the native speakers. In those studies, however, although native speakers had a very high performance (2007: 97% and 2011: 93% average), there was no ceiling effect with the L2 population (2007: 79% the highest, 2008a: 73% average, 2008b: 81%, 2011: 72%, 53%), maybe because they were low level EFL or ESL learners or because the structures measured were only implicatures and not other types of speech acts such as we have in the present study.

Another reason for the ceiling effect could be the items; that is to say, the structure of the item itself was very easy to comprehend since it was daily life English although that was done on purpose when designing the items due to the fact that population was not only school-related people (e.g. language or graduate students). The ceiling effect in our case could be eliminated by increasing the item difficulty to an appropriate level, revising and piloting the refusal items again.
There was another limitation regarding the performance in the boss politeness system with implicatures. A difference was found in the implicature performance where boss politeness system comprehension was lower and differed significantly from the other two; in addition, it was found slower than the other two politeness systems under the implicatures performance. This shows that the implicatures item under the boss category were probably confusing to all participants. One reason could be that they were not comfortable with giving an answer such as the one chosen to a boss and this made them take longer time as well. However, since these items were not piloted, it is also possible that there might be some difference in the items that are not controlled for. In this case, there is need to pilot the implicature items to be able to control any unexpected difference.

As a measure of proficiency, the SEB group division represented not a limitation but an issue to consider in the study. Although groups were divided according to participants’ length of residency in the L2 environment; we acknowledge that there were alternative ways to classify participants in terms of proficiency such as their self-rated English skills and the amount of English language used daily. In any case, there was a significant relationship between the length of residence and their self-rated English skills ($r = .25, p < .05$); also, between length of residence and their amount of English used daily ($r = .39, p < .01$). We chose to follow the length of residence since previous studies (Garcia, 2004; Taguchi, 2008a; Taguchi, 2011; Yamanaka, 2003) have classified their participants according to this variable with significant results. However, if we had chosen their self-rating in English factor, out 34 people who self-rated low ability, 14 were in the current SEBL group and 20 in the SEBS. The same happened for the high self-rated English ability where out of 33 people, 13 were in our SEBS group and 20 in the SEBL group. If we divided the speakers according to the amount (percentage) of English used
daily, the lower group (50% or less) would have 31 participants from which 10 are now in the SEBL group and 21 in the SEBS, and the higher group would have 36 participants, in which 12 are now in the SEBS group and 24 in the SEBL. Thus, these alternative ways of arranging the groups would have resulted with a very different mixture of people in the groups and it is worth of exploring in future studies. In addition, in previous research, TOEFL (or other tests) scores were also considered to assign participants to different levels of proficiency (Taguchi, 2005, 2007, 2008a; 2008b; 2011). We did not take this measure since the population chosen was not all people at a university and many of them never took the TOEFL test, and therefore we couldn’t form our groups based on this measure.

Regarding the type of population selected, people from Latin America were chosen as the SEB group. This was done to control for cultural differences between Peninsular Spanish (from Spain) and Latin American Spanish. We had SEB who were from 14 different countries in Latin America, which might also represent a limitation since culture varies across countries. Ideally, a study should be done with participants from the same country. In addition, we did not control for socio-economic class or degree of education to have a more homogenous group, which would be a condition to consider for future studies.

The methodology presented in this study is innovative and of great relevance for the fields of pragmatics and psycholinguistics. It allowed to not only testing accuracy and speed of comprehension, but also measuring cognitive variables involved in the comprehension process. Nonetheless, the methodology leaves room for adaptation and application to further studies. One variation would be to explore different populations, such as SEB who are ESL or EFL students placed in different levels of proficiency, or who are studying in a graduate program in the L2 environment. The language students would show how language instruction would enhance
pragmatic comprehension, and the graduate students are expected to do better since they (are supposed) to have better proficiency, length of residency and contact with the language. This would add to the literature on pragmatic comprehension and performance. Also, on a more sociolinguistic focus, it would be interesting to compare ESL/EFL students and bilinguals who have not been to college to native speakers; this would show whether they have acquired pragmatics according to the kind of language contact they have in their daily lives. Lastly, a comparison between Latin American and Peninsular SEB would fill some research gaps and would provide researchers with a wider cultural scope on speech act comprehension.

Likewise, different speech acts can be tested under this methodology, requesting, apologizing, complimenting, thanking and so on to compare bilinguals’ performance. Normally, all types of speech acts carry a cultural load, although it would be interesting to test speech acts that threaten the negative face of the hearer. That is to say, speech acts where the speaker is assumed to be imposing to the hearer and avoids offending by showing deference such as in requests or suggestions. This could be done with the purpose of observing how culturally different individuals are and how close they are to the host culture in their pragmatic behavior.

Similarly, another suggestion for further studies aims at pragmatic instruction. It was shown in this study that length of residency represents an advantage for the acquisition of pragmatic competence. So, for students who do not have the capacity to experience an actual L2 environment, there should be research done on the methodology to include explicit pragmatic instruction in both foreign and second language settings and even suggesting web-based activities that facilitate their access to the pragmatic features seen in this study.
REFERENCES


# APPENDIX A: REFUSAL STRATEGIES SUMMARY

## Refusal direct strategies

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<tr>
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<tbody>
<tr>
<td>Performative</td>
<td>Performative</td>
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<tr>
<td><em>I refuse...</em></td>
<td><em>I refuse...</em></td>
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<tr>
<td>Non-performative statement</td>
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<tr>
<td>a. <em>No</em></td>
<td>Flat ‘No’</td>
<td>1. Non-Performative ‘No’</td>
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<tr>
<td>b. Negative willingness/ability</td>
<td><em>No/ I can’t...</em></td>
<td>1. Non-performatives</td>
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<tr>
<td><em>I can’t/ I won’t/ I don’t think so...</em></td>
<td></td>
<td>a. Flat <em>No</em></td>
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<td>b. Negation of a</td>
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<td></td>
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<td>proposition</td>
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<td><em>It’s impossible for me to stay.</em></td>
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<tr>
<td></td>
<td>Negation of a proposition</td>
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<tr>
<td></td>
<td><em>I can’t...</em></td>
<td>2. Negative Willingness/ Ability</td>
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<td></td>
<td>Mitigated refusal</td>
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<td><em>I don’t think it’s going to be possible.</em></td>
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<td>2. Mitigated refusal</td>
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<td><em>I don’t think it’s going to be possible because...</em></td>
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## Refusal indirect strategies

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<tr>
<td>Statement of regret</td>
<td>Apology/ regret</td>
<td>Statement of regret/ apology</td>
<td>Apology</td>
</tr>
<tr>
<td><em>I’m sorry... / I feel terrible...</em></td>
<td><em>I’m sorry.../ I apologize.</em></td>
<td><em>I’m sorry ...</em></td>
<td><em>I’m really sorry</em></td>
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<tr>
<td>Excuse, reason, explanation</td>
<td>Reason/explanation</td>
<td>Excuse/ explanation</td>
<td>Reason</td>
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<tr>
<td><em>I have a headache.</em></td>
<td><em>I have plans/ I have a commitment.</em></td>
<td><em>I have to attend my brother’s wedding.</em></td>
<td><em>I’ve made plans.</em></td>
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<td>Mitigated refusal:</td>
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<td></td>
<td><em>I don’t think it’s going to be possible because...</em></td>
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</table>
Adjuncts to refusal

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<tbody>
<tr>
<td>Statement of positive opinion/feeling or agreement</td>
<td>Positive opinion</td>
<td>Statement of positive opinion, willingness, agreement or support</td>
<td>Positive opinion/feeling</td>
</tr>
<tr>
<td>That’s a good idea.../I’d love to...</td>
<td><em>That’s a good idea, but...</em></td>
<td><em>I’d love to do that. / Congratulations.</em></td>
<td></td>
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<tr>
<td>Willingness</td>
<td><em>I’d love to but...</em></td>
<td><em>I’d love to do that. / Congratulations.</em></td>
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<tr>
<td>Gratitude/appreciation</td>
<td>Gratitude/appreciation</td>
<td>Expressing gratitude/appreciation</td>
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<tr>
<td>Thanks for the invitation, but I already have plans.</td>
<td><em>Thank you/ I appreciate it.</em></td>
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<tr>
<td>Pause fillers</td>
<td></td>
<td>Accepting fault</td>
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<tr>
<td><em>Uhh/ well/ oh/ uhm.</em></td>
<td></td>
<td><em>It’s my fault.</em></td>
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</table>
This survey intends to know about the degree of legitimacy of the excuses that people can give when refusing invitations from friends, classmates, or coworkers.

Read the statements below. Answer the question by clicking on the box next to your answer.

<table>
<thead>
<tr>
<th>How likely do you think that this reason is true?</th>
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<tbody>
<tr>
<td>Highly likely / Likely / Not sure / Unlikely / Highly unlikely</td>
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</table>

1. You invite a friend to go dancing to night. You friend replies: "I'm not feeling well". How likely do you think that this reason is true?

2. You invite a classmate to register for a weekend seminar. You classmate replies: "I'm often out of town on weekends". How likely do you think that this reason is true?

3. You invite a friend to to jogging tomorrow. She replies: "My foot hurts". How likely do you think that this reason is true?

4. You invite a coworker to your promotion party next Saturday. He replies: "I have to go camping with my children". How likely do you think that this reason is true?

5. You invite a friend to your birthday party. Your friend replies: "I have tickets for a play on that night". How likely do you think that this reason is true?

6. You invite a classmate to a movie night in your house. He replies: "I will be studying for my finals". How likely do you think that this reason is true?

7. You invite your friend to the gym right now. Your friend replies: "I have too much work to do". How likely do you think that this reason is true?

8. You invite a friend to go roller skating this Sunday. She replies: "I have to babysit on Sundays". How likely do you think that this reason is true?

9. You invite your coworker for the company's annual dinner. He replies: "It's my daughter's
recital". How likely do you think that this reason is true?

10. You invite a friend to go to the beach for the weekend. Your friend replies: "I am very busy this weekend". How likely do you think that this reason is true?

11. You invite a classmate to a concert tomorrow night. He replies: "I have a dinner to attend". How likely do you think that this reason is true?

12. You invite a coworker to have lunch with you. He replies: "I have another appointment". How likely do you think that this reason is true?

13. You invite a classmate to this Saturday's football game. He responds: "I have to work on Saturday". How likely do you think that this reason is true?

14. You invite a friend to watch a new play at the theater. Your friend replies: "I have tickets for the movies". How likely do you think that this reason is true?

15. You invite your coworker to play golf on Saturday. He replies: "I'm not good at golf". How likely do you think that this reason is true?

16. You invite a friend to go bowling. He replies: "I'm exhausted". How likely do you think that this reason is true?

17. You ask a coworker to stay late at work with you. He replies: "Tonight is a bad time for me". How likely do you think that this reason is true?

18. You invite a classmate to go hiking by the lake this weekend. He replies: "I already have plans". How likely do you think that this reason is true?

19. You invite your coworker for the boss's farewell party. He replies: "I have to take my son to a soccer practice". How likely do you think that this reason is true?

20. You invite a friend to go roller skating this Sunday. She replies: "I have to babysit on Sundays". How likely do you think that this reason is true?
21. You invite a classmate to the conference next month. He replies: "I have no money to go"
  How likely do you think that this reason is true?

22. You invite a friend to see a movie that just came out. Your friend replies: "I have to
  prepare a presentation for tomorrow". How likely do you think that this reason is true?

23. You invite your coworker for a cup of coffee right now. She replies: "I have to finish
  something here". How likely do you think that this reason is true?

24. You invite your friend to go out eat tonight. She replies: "I'd rather not break my diet".
  How likely do you think that this reason is true?

25. You invite your friend to shop for a birthday gift. She replies: "I'm really busy now".
  How likely do you think that this reason is true?

26. You invite a friend to go swimming tomorrow morning. Your friend replies: "I have an
    early meeting tomorrow". How likely do you think that this reason is true?

27. You invite a friend to have breakfast tomorrow. She replies: "I have to wash my hair".
    How likely do you think that this reason is true?

28. You invite a classmate to a free soccer lesson. He replies: "I need to finish studying for a
    test tomorrow". How likely do you think that this reason is true?

29. You invite a friend to the museum on Saturday. He replies: "I have other plans for that
    day". How likely do you think that this reason is true?

30. You invite a classmate to see a documentary at the cinema. She replies: "I hate
    documentaries at a cinema". How likely do you think that this reason is true?

31. You invite your friend to the weekend festival. She replies: "I'll be looking after my sick
    dad". How likely do you think that this reason is true?

32. You invite a coworker to a guest speaker lecture tomorrow. He replies: "I’m on a special
assignment at work this week". How likely do you think that this reason is true?

33. You invite your friend to visit your sick dog. He replies: "I am allergic to dogs and cats". How likely do you think that this reason is true?

34. You invite a classmate to discuss the readings for class. He replies: "I haven’t finished them". How likely do you think that this reason is true?

35. You ask a friend to come with you grocery shopping. She replies: "I have to take the dog to the vet". How likely do you think that this reason is true?

36. You invite a classmate to the Jazz Festival. She replies: "I already have plans for the weekend". How likely do you think that this reason is true?
APPENDIX C
IMAGES FOR THE PICTURE NAMING TASK—PILOT STUDY

High frequency animate pictures

High frequency inanimate images
Medium frequency animate pictures

Medium frequency inanimate pictures
Low frequency animate pictures

Low frequency inanimate pictures
APPENDIX D
PRAGMATIC LISTENING TASK (PLT) ITEMS

Practice item

1. Positive opinion (boss)
Connie: Hello Dr. Thomas. Do you have time?
Dr. Thomas: Sure. Come in.
Connie: Ah, Did you have a chance to read my book report? It was my first time to write a book report, so I’d like to know how I did on it.
Dr. Thomas: Oh, it’s exactly what I wanted.
Q: Does Dr. Thomas like Connie ’s book report?

Refusals to invitations (direct) (adapted from Taguchi, 2008)

1. Friends
Jenny: Hi Tyler. What’s up?
Tyler: Not much. What are you up to?
Jenny: Well, Cindy and I have tickets for Saturday’s football game. Do you wanna come with us?
Tyler: I’m sorry. I can’t. I have to work on Saturday.
Q: Is Tyler going to the game?

2. Friends
Frank: Hi Mary.
Mary: Hi there. What are you up to?
Frank: I heard this new movie is a total success. I’m gonna watch it tonight. You wanna come with me?
Mary: No. I can’t. I’m exhausted from this long day
Q: Is Mary going to watch the movie tonight?

3. Friends
Ann: Hey, Ross. How ya’ doing?
Ross: Hi Ann. OK, thanks. What’s new?
Ann: Not much…well, there’s a new exhibition at the museum. Mary and I are going on Saturday, do you wanna join us?
Ross: That’s not possible for me. I have to go to my brother’s barbecue.
Q: Is Ross going to the museum?
4. Acquaintances
Susan: Hi Dave. How are you doing?
Dave: Hi Susan. I'm OK. What have you been up to lately?
Susan: Well, not much new or exciting. I’m going bowling tonight, you know, for a change. Do you wanna come?
Dave: I’m sorry. I can’t. I already have plans for tonight.
Q: Is Dave going bowling with Susan?

5. Acquaintances
Debi: Hey John, what are you doing?
John: I'm working on this project I was assigned. Almost finished.
Debi: Wow, good for you. Uh… It’s almost noon. Do you wanna grab some lunch?
John: No, I can’t. I have to finish the project here.
Q: Is John having lunch with Debi?

6. Acquaintances
Tom: Hi Carey.
Carey: Hi Tom. How are you doing?
Tom: I’m doing great. You know, I am having a party to celebrate my promotion this Saturday. Can ya join us?
Carey: That’s not possible for me. I have to go camping with my children.
Q: Is Carey going to the party?

7. Boss
Ms. Daniels: Good morning, Kurt. How are you today?
Kurt: Good morning, Ms. Daniels. Everything is okay.
Ms. Daniels: Good. Mary and I are playing golf every Saturday morning. It’s been fun. Would you like to join us?
Kurt: I’m sorry, I can’t. I don’t play golf.
Q: Is Kurt going to play golf?

8. Boss
Mr. Hymes: Good morning Jane. How are you?
Jane: I’m good. Thanks. How about you Mr. Hymes?
Mr. Hymes: Good. You know, there is a free soccer lesson tonight at the university field. Do you want to come?
Jane: No, I can’t. I need to finish studying for a test tomorrow.
Q: Is Jane going to the soccer lesson?
9. Boss
Mr. Johnson: Hi Sally. How are you doing?
Sally: I’m doing good Mr. Johnson, thanks.
Mr. Johnson: What are you doing this weekend? The company is planning a trip to the Jazz Festival. Do you think you can make it?
Sally: That’s not possible for me. I have to visit my parents this weekend.
Q: Is Sally going to the Jazz Festival?

Refusals to invitations (indirect) (adapted from Taguchi, 2008)
More conventional – ‘downgraders’

1. Friends
Kim: Hi Paul. What are you up to?
Paul: Hey, Kim. Not much. How about you?
Kim: Well, doing good. You know, Jane and I are gonna see this new play at the theatre on Friday. You wanna go?
Paul: I’d love to, but I’m taking my sister to the movies that night.
Q: Is Paul going to the play?

2. Friends
Mike: Hello Eve. How are you?
Eve: Hi Mike. Good thanks. Are you leaving now?
Mike: Yes, I'm going downtown. I need to buy a birthday gift for my brother. Do you wanna come with me?
Eve: Thanks for the invitation, but I’m really busy now.
Q: Is Eve going shopping?

3. Friends
Kathy: Hi, Brad. What are you up to?
Brad: Hi Kathy, Not much. How about you?
Kathy: I’m doing OK… you know, I’m planning a movie night at home tomorrow. Do you wanna come?
Brad: That’s a good idea, but I will be studying for my last final.
Q: Is Brad going to the movie night?

4. Acquaintances
Carol: Hi Jeff. Are you busy?
Jeff: Uh... not right now. I just finished my work for today. What's up?
Carol: Uh...I need to visit my sick dog, but I don’t want to go alone. Do you wanna come with me?
Jeff: I’d love to, but I’m allergic to dogs and cats.

Q: Is Jeff going to visit the sick dog?

5. Acquaintances

Gary: Hi Stacey. How are you?
Stacey: Doing well. How about you?
Gary: Great, thanks. You know, I’m having a birthday party this Friday. It should be fun. Do you want to come?
Stacey: Thanks for the invitation, but I have tickets for a play that night.
Q: Is Stacey going to Gary’s party?

6. Acquaintances

Gina: Hey Sean, is the gym open 24 hours a day?
Sean: Almost. It’s open from 5 AM to 1 AM Monday through Friday, and from 5 to 10 PM on weekends.
Gina: Great! I’m going swimming tomorrow morning. Do you want to join me?
Sean: That’s a good idea, but I have an early meeting tomorrow.
Q: Is Sean going swimming?

7. Boss

Mr. Smith: Hey Sarah. Are you busy?
Sarah: Ah...not right now Mr. Smith. I just finished that big project.
Frank: Wow, good for you. My wife and I are going to the opera tonight. Do you want to join us?
Sarah: I’d love to, but I’m not feeling well.
Q: Is Sarah going to the opera?

8. Boss

Mr. Jones: Hey Donna. How are you?
Donna: Everything is fine Mr. Jones. How about you?
Mr. Jones: This has been a long day. Some of us are going for a cup of coffee. Would you like to go?
Donna: Thanks for the invitation, but I have to finish something here.
Q: Is Donna having coffee with them?

9. Boss

Dr. Rogers: Hi, Ben. How are you doing?
Ben: Hi Dr. Rogers. Not too well. I’m struggling with Dr. White’s class.
Dr. Rogers: You know, People are signing up for the weekend seminar. It’s a good review for the course. Do you want to take it?
Ben: That’s a good idea, but I’m out of town on weekends.
Q: Is Ben registering for the seminar?

Refusals to invitations (indirect) More conventional – ‘upgraders’

1. Friends
Janet: Hi Matt.
Matt: Hi Janet, how are you doing?
Janet: Good, thanks. I wanted to ask you, my sister and I are having a picnic this weekend. You wanna join us?
Matt: Actually, I will be out of town.
Q: Is Matt going to the picnic?

2. Friends
Joe: Hi Sharon!
Joe: Yeah, I was just talking to Mary. We are going to the beach for the weekend. Do you wanna come with us?
Sharon: Well… uh, I’m very busy this weekend.
Q: Is Sharon going to the beach?

3. Friends
Linda: Hi Sam. What’s up?
Sam: Hi Linda, not much. How about you?
Linda: Well, I was just checking the weather for this weekend. Cindy and I are going hiking by the lake on Sunday. Do you wanna come with us?
Sam: Unfortunately, I already made plans for the weekend.
Q: Is Sam going hiking?

4. Acquaintances
Helen: Hey Kevin. You're out early today.
Kevin: Hey, Helen. My class just got cancelled. What are you doing?
Helen: I’m heading to the gym. Do you wanna come with me?
Kevin: Actually, I have too much work to do.
Q: Is Kevin going to the gym?

5. Acquaintances
Alex: Hi Carly. Are you done with your work for today?
Carly: Well....I'm almost done. I hope to be leaving soon. What about you?
Alex: Well, my fridge is empty. I have to go grocery shopping now. Do you wanna come with me?

Carly: Well.. uh, I have to take the dog to the vet.

Q: Is Carly going grocery shopping?

6. Acquaintances
Griffin: Hi Erin. How are you?
Erin: Hi Griffin. I'm OK. What have you been up to lately?
Griffin: Well, not much new or exciting. Tom and I are going to this food festival over the weekend. Do you wanna join us?
Erin: Unfortunately, I’m going to New York for the weekend.
Q: Is Erin going to the food festival?

7. Boss
Ms. Cole: Hi Larry.
Larry: Hello Ms. Cole. How are you?
Ms. Cole: Good. You know, this Saturday is the annual dinner for the company. I have extra tickets. Do you and your wife want to come?
Larry: Actually, it’s my daughter’s recital.
Q: Is Larry going to the dinner?

8. Boss
Mr. Logan: Hey Linda, this group project is taking longer than I thought.
Linda: I know Mr. Logan. I would really like to finish it tonight.
Mr. Logan: There is still so much to do, but we are all hungry and are heading to the restaurant around the corner. Do you want to join us?
Linda: Well... uh, I’m really focused on the project.
Q: Is Linda going to eat?

9. Boss
Mr. Kaye: Hi, Jen.
Jen: Hello Mr. Kaye, how are you doing?
Mr. Kaye: Good! You know, The company is sponsoring this big roller skating event this Sunday. Do you want to go with us?
Jen: Unfortunately, I babysit on Sundays.
Q: Is Jen going to roller skate?
Refusals to invitations (indirect) 

Less conventional – ‘implicatures’

1. Friends
Abby: Hey Andrew. What’s up?
Andrew: Not much. What are you up to?
Abby: I’ve been working on this paper all day. I’m tired. I’m going to the restaurant around the corner. Do you wanna come?
Andrew: I still have chicken and rice from yesterday.
Q: Is Andrew going to the restaurant?

2. Friends
Reed: Hi Amy. How’s everything?
Amy: Same as usual. How about you?
Reed: Well, I heard about this bungee jumping event on Sunday. I’m gonna go try it. You wanna come watch?
Amy: I don’t like risky behavior.
Q: Is Amy going to the event?

3. Friends
Janie: Hi Adam. How are you today?
Adam: I’m good. How are you doing?
Janie: Good. You know I’ll be selling lemonade with my little sister on Saturday at the park. It’s so much fun. Do you wanna come with us?
Adam: I have a tennis tournament this Saturday.
Q: Is Adam going to sell lemonade?

4. Acquaintances
Joseph: Hi Angie! Long time no see!
Angie: Hey Joseph! Wow, it’s been a while. What’s up?
Joseph: Well, now that I see you, we’re having a get together with the old gang tonight at 8:00. Wanna join us?
Angie: I have a presentation to finish for tomorrow morning.
Q: Is Angie going to the get together?

5. Acquaintances
Diana: Hi Casey. How’s it going?
Casey: Not so bad, thanks. What’s up?
Diana: A small group in our class is planning to take a seminar in the summer, but we need at least two more people. Do you wanna take it with us?
Casey: I’m going to Europe this summer.
Q: Is Casey going to take the summer class?

6. Acquaintances
Bill: Hey Anna. How are you doing?
Anna: I’m good, thanks. How about you?
Bill: Great. Look, we’re planning to go to the mall after 5:00. There’s a good sale tonight. Do you wanna come with us?
Anna: I have to be at my son’s birthday party.
Q: Is Anna going to the mall?

7. Boss
Mr. Williams: Hey Liz. How’s work?
Liz: Hello Mr. Williams. Pretty busy today, but fine.
Mr. Williams: Good. Listen, most of us at the company are attending the March for Babies walk this Saturday. Do you want to come?
Liz: I am camping with my family this weekend.
Q: Is Liz going to attend the March for Babies?

8. Boss
Ms. Walker: Good morning Scott. Are you very busy?
Scott: Good morning Ms. Walker. Just a bit. Do you need anything?
Ms. Walker: A small group in the office is having a cake for Mary’s promotion. Do you want to join the party?
Scott: I’m on a diet.
Q: Is Scott going to the promotion party?

9. Boss
Mr. Richards: Hey Lacey. How are you today?
Lacey: Good, Mr. Richards. Thanks. And you?
Mr. Richards: Good. We are having a pre-meeting coffee break in the conference room. Do you want to join us?
Lacey: I will be making the copies for the meeting.
Q: Is Lacey going to the coffee break?

Filler dialogs

Acceptance to invitations (implicatures)

1. Friends
Joan: Hi Michael. Are you busy?
Michael: Uh... not really. I just finished my homework. What's up?
Joan: I feel like eating out tonight. Do you wanna join me?
Michael: Let me grab my stuff.
Q: Is Michael going to eat out?

2. Friends
Jill: Hey Harry, how are you?
Harry: Hi! I’m doing well. Just ready for the weekend.
Jill: Well, my sister and I are going to the Symphonic Orchestra concert tomorrow night. Do you wanna join us?
Harry: I’ll meet you at the box office.
Q: Is Harry going to the concert?

3. Friends
Nick: Hi Lisa. How’s everything?
Nick: You know Jane got engaged last week, right? We’re having a party for her on Thursday night. Do you wanna come?
Lisa: I can’t wait to see her ring.
Q: Is Lisa going to the party?

4. Acquaintances
Betty: Hey Dan. Isn’t this a beautiful day?
Dan: Oh yeah. I’m definitely enjoying this weather.
Betty: It’s nice to be out. You know, I go jogging every evening at 6:00. Do you wanna join me tomorrow?
Dan: Meet you by the fountain at 6:00 o’clock.
Q: Is Dan going jogging?

5. Acquaintances
Lucy: Hi Francis. How are you?
Francis: Doing well. What are you up to?
Lucy: Not much. You know I make the best pancakes in town. Do you wanna join me for breakfast tomorrow?
Francis: I’ll bring something to drink.
Q: Is Francis going to have breakfast with Lucy?

6. Acquaintances
Doug: Hi, Jenny. What’re you up to?
Jenny: Hi Doug, not much; just preparing for the midterms.
Doug: Good… by the way, I’ll be discussing the readings with Jon and Sarah tomorrow
morning at the library. Do you wanna join us?

Jenny: I’ll bring all the material I have.
Q: Is Jenny going to the library

7. Boss
Dr. Thompson: Hi, Erika. How are you doing?
Erika: Hello, Dr. Thompson. I’m doing great. Just finished some homework.
Dr. Thompson: Good. Sarah and I are heading to the auditorium to watch the new documentary the department is showing. Do you want to go with us?
Erika: Let me get my jacket.
Q: Is Erika going to the auditorium?

8. Boss
Dr. Lowe: Hi Ray. How have you been?
Ray: Good morning Dr. Lowe. I finally got a topic for my paper.
Dr. Lowe: That’s great. You know, I’m heading to a guest speaker lecture on the main topic of our seminar. Do you want to come?
Ray: That sounds very interesting.
Q: Is Ray going to the lecture?

9. Boss
Dr. Lloyd: Hey, Natalie. How are you today?
Natalie: Hello, Dr. Lloyd. I’m doing well. How about you?
Dr. Lloyd: Good, thanks. There is a book club meeting today at 4 o’clock. We’ll be discussing Don Quijote. Would you like to come?
Natalie: I’ll bring an extra copy of the book.
Q: Is Natalie going to the meeting?

**Direct acceptance (yes / sure / definitely)**

1. Friends
Esther: Hi Neil. How are you doing?
Neil: I’m doing well. Just waiting to get over this cold. How about you?
Esther: Doing good. You know, this Saturday is the big car sale I told you about. Do you wanna come with me?
Neil: Yes! I’ll pick you up at 10 o’clock.
Q: Is Neil going to the car sale?

2. Friends
Corey: Hi Ruby, how are you?
Corey: Great. I’m thinking of having a barbecue on Sunday. The weather is going to be nice. Do you wanna join me?
Ruby: Sure! I’ll bring the hot dogs and some drinks.
Q: Is Ruby going to the barbecue?

3. Friends
Daniel: Hey Rebeca. How’s everything?
Rebeca: Hey Daniel! Good. What’s up?
Daniel: I just heard they opened the skateboarding park. I can’t wait to go. You wanna come with me?
Rebeca: Definitely! I’ll get my skateboard right away.
Q: Is Rebeca going to the skateboarding park?

4. Acquaintances
Amanda: Hey Jake. How are you?
Jake: Oh, hi Amanda. Not very well. The boss is really grumpy today.
Amanda: Oh, why? what happened? You wanna go to the cafeteria?
Jake: Yes! I’ll meet you there in 10 minutes.
Q: Is Jake going to the cafeteria?

5. Acquaintances
Bret: Hi Monica. How are you doing?
Monica: Fine, thanks. How about you?
Bret: Doing good. This Saturday my wife and I are having a yard sale at 8:00 am. Do you wanna bring some stuff over?
Monica: Sure! I’ll be there right before you start.
Q: Is Monica going to the yard sale?

6. Acquaintances
Ivan: Hi, Emily. How are you?
Emily: Hey Ivan, I haven’t seen you in a while.
Ivan: I know! Hey, I’m hosting a luncheon for my graduation tomorrow. It’s at 1 o’clock. Do you wanna join us?
Emily: Definitely! I’ll wear my best dress.
Q: Is Emily going to the luncheon?

7. Boss
Mr. Meyer: Hi Clare. How are you?
Clare: Hello, Mr. Meyer. I’m OK. How are you?
Mr. Meyer: You know Jane is leaving town, right? We’re having a farewell party for her on Thursday night. Do you want to come?

Clare: Yes. I’ll be bringing pizza.

Q: Is Clare going to the party?

8. Boss

Ms. Wood: Hi Craig. How are you doing today?

Craig: Good morning Ms. Wood. Good, thanks.

Ms. Wood: You know, there is a free concert downtown. My boyfriend and I are going. Would you like to come?

Craig: Sure. I’ll be ready in 15 minutes.

Q: Is Craig going downtown?

9. Boss

Ms. Shaw: Good afternoon everybody.

Fred: Hello, Ms. Shaw. How are you today?

Ms. Shaw: Well, very busy today. Fred, the state fair is going on this weekend. 4 people from the office are going on Saturday. Do you want to join us?

Fred: Definitely. I’ll bring money for the games.

Q: Is Fred going to the fair?

Indirect Opinion Items (implicatures)

Positive opinion

1. Friends

Krista: I'm home, Colin. Are you feeling better?

Colin: Not really. I've been in bed all day, but the headache doesn't go away.

Krista: Oh.... that's too bad. How was the party anyway? Did you have fun?

Colin: Jennifer really knows how to give a party.

Q: Did Colin enjoy Jennifer’s party?

2. Friends

Liz: Oh, Vince, I didn't know you're home. You're early today. What are you watching?

Vince: I'm watching the air show.

Liz: You always watch air shows. Do you like flying in an airplane?

Vince: I wish I were a pilot.

Q: Does Vince like flying in an airplane?
3. Friends
Mitch: Hey, Barbara. You're up already.
Barbara: Yeah, I got to finish this homework for the English class.
Mitch: Oh... I have to do that too.... Hey, by the way, did you like the TV show last night?
Barbara: I couldn't wait to see what happened at the end.
Q: Did Barbara like the TV show?

4. Acquaintances
Mark: Hi Jena. What are you up to?
Jena: I gotta go to work in half an hour or so. I'm baby sitting my neighbor's kids every Monday and Wednesday night.
Mark: Oh, really. Do you like children?
Jena: I'd enjoy being a kindergarten teacher.
Q: Does Jena like children very much?

5. Acquaintances
Josh: Hey Lindy, I was just passing by, so I thought I'd stop by to say hi.
Lindy: Hey Josh. What a surprise! Come in!
Josh: Wow, this is a great apartment. Do you like the people upstairs?
Lindy: We're always visiting each other.
Q: Does Lindy like the people upstairs?

6. Acquaintances
Kacey: Hi James. Did you see the movie on TV last night?
James: No, it started out really bad, so I watched the comedy show instead.
Kacey: Oh, how was it?
James: I laughed for an hour.
Q: Did James enjoy the comedy show?

7. Boss
Angela: Good morning Mr. Crooks. I heard the cheesecakes at the new coffee shop are terrific.
Mr. Crooks: Oh really, I should try it sometimes.
Angela: Yeah, you should. Do you like cheesecakes?
Mr. Crooks: Last week, I ate only 3 pieces a day.
Q: Does Mr. Crooks like cakes much?
8. Boss
Dr. Clay: Hello, Robyn. How is your semester going so far?
Robyn: Pretty good, but I'm still busy starting the new semester. Most of my classmates are new.
Dr. Clay: Do you like meeting new people in class?
Robyn: I always try to get to know my classmates right away.

Q: Does Robyn like meeting new classmates?

9. Boss
Mr. Britt: Good morning Erin. How are you doing today?
Erin: Fine, thanks. I'm getting ready for today's meeting.
Mr. Britt: Good. By the way, how is the new dining table we bought for the office?
Erin: There is nothing I want to change about it.

Q: Does Erin like the dining table?

Negative opinion

1. Friends
Brenda: Good morning, Jordan. I can't believe I fell asleep in the middle of the movie last night. Did you watch it till the end?
Jordan: Yeah, I did.
Brenda: How was it? Did you like it?
Jordan: I was glad when it was over.
Q: Did Jordan like the movie?

2. Friends
Heather: This is crazy! There are so many sweaters to choose from.
Will: Yeah.... I'll wait over there, so take your time.
Heather: Oh, this one looks warm, and I love the color. What do you think?
Will: I wonder if they have a different style in that color.
Q: Does Will like the sweater?

3. Friends
Luke: Hey Hannah, welcome back. You must be really tired after rushing around for your friend's wedding.
Hannah: Yeah, I'm so tired. I haven't slept much in the last three days.
Luke: How was the wedding? I bet it was exciting.
Hannah: Well...the cake was OK.
Q: Did Hannah like the wedding?
4. Acquaintances

Jimmy: Hi Kathryn. Busy weekend, huh? I worked all day on Saturday and Sunday at the bookstore. How was yours?

Kathryn: It was okay. Last night I went to Joan's party.

Jimmy: Oh, how was it?

Kathryn: I only stayed until ten to be polite.

Q: Did Kathryn enjoy Joan's party?

5. Acquaintances

Dylan: Hey Lauren. I didn't know that you're working here on campus.

Lauren: Yeah, I'm working in the Student Union cafeteria. I work there Monday through Friday starting at six.

Dylan: You sound busy. Do you like the job?

Lisa: My mother wanted me to take it.

Q: Does Lisa like the cafeteria job?

6. Acquaintances

Gabby: Hi Robert. How was your weekend?

Robert: I went to Mary's parents' place for dinner. It was my first time to meet her parents.

Gabby: Oh, how did you like her family?

Robert: Well....I still love Mary.

Q: Does Robert like Mary's parents?

7. Boss

Amber: Hello Dr. Harper.

Dr. Harper: Hi Jane. How are you feeling now?

Amber: I'm so glad that my presentation is over. I was really nervous. What did you think of my presentation?

Dr. Harper: It's really difficult to give a good presentation sometimes, isn't it?

Q: Did Dr. Harper like Amber's presentation?

8. Boss

Ms. O’Connor: What do you do on weekends Andy?

Andy: I like the theater --- you know, plays and concerts. How about you?

Ms. O’Connor: Oh lots of different things… Books, dancing... I like to try interesting restaurants too. Do you like eating in restaurants?

Andy: They are too expensive for me.

Q: Does Andy often eat at restaurants?
9. Boss
Alan: Good morning Ms. Moore. You got a package today, didn't you?
Ms. Moore: Yes. Thanks. It's from my cousin in Florida. He sent me a gift for my birthday. A little alarm clock.
Alan: Oh, that's nice of him. Did you like it?
Ms. Moore: Well... The wrapping paper was nice.
Q: Does Ms. Moore like the gift?
APPENDIX E
SCENARIOS FOR PRODUCTION

Friends

1. Please refuse the following invitation. Please, say your answer out loud.
   Voice: Hey, what are you doing tomorrow? I’m setting up a game of beach volleyball at my place. You want to join us?

2. Please refuse the following invitation. Please, say your answer out loud.
   Voice: Hey, I’m getting hungry. Do you want to go for dinner after the concert?

3. Please accept the following invitation. Please, say your answer out loud.
   Voice: Hi there! The ice skating rink downtown opened last week? Do you wanna go tonight?

4. Please accept the following invitation. Please, say your answer out loud.
   Voice: Hi, I’m on the way to look at new cars at the dealer. Do you want to come with me?

Acquaintances

1. Please refuse the following invitation. Please, say your answer out loud.
   Voice: Hi there. I’m skipping tonight’s class, I’m heading to a bar instead, you wanna join me?

2. Please refuse the following invitation. Please, say your answer out loud.
   Voice: Hi! What are you doing? I’m rushing to attend this student government meeting in 5 minutes. Do you wanna join me?

3. Please accept the following invitation. Please, say your answer out loud.
   Voice: Hi. I’m having a yard sale on Saturday. It’s gonna be good, everything has to go. Do you wanna come?

4. Please accept the following invitation. Please, say your answer out loud.
   Voice: Hey, how are you gonna kill the next two hours before class? I’m gonna get something to eat. Do you wanna come?
5. Please refuse the following invitation. Please, say your answer out loud.
   Voice: Hello, I heard there is a new exhibition at the downtown museum. I’m going with Mary tomorrow; do you want to join us?

6. Please refuse the following invitation. Please, say your answer out loud.
   Voice: Hi! The weather is supposed to be nice this weekend. Peter and I are going sailing. Do you want to come with us?

7. Please accept the following invitation. Please, say your answer out loud.
   Voice: Hi! We’re having the annual barbecue for the company this Saturday. Would you like to come?

8. Please accept the following invitation. Please, say your answer out loud.
   Voice: Hello there. Good to see you! I am going to a speech by the guest professor from last night’s class. Do you want to come?
APPENDIX F: LANGUAGE CONTACT SURVEY

Today’s date: ___________________ Subject # __________________

Bilingual questionnaire

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<th>Birth date</th>
<th>Country of origin</th>
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<tr>
<th>Home language</th>
<th>Major second language</th>
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<th>Age of 1st arrival in US</th>
<th>Length of residence in US</th>
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<tr>
<th>Years of schooling in English before coming to US</th>
<th>In US / at school in home country?</th>
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<tr>
<th>Years of schooling in US in English speaking school?</th>
<th>Bilingual / ESL / Regular</th>
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Spanish speakers

Rate your **English** overall ability
1 (poor) to 5 (excellent)

Rate the am’t you use **English** currently
1 (hardly ever) to 5 (always)

Rate your **Spanish** overall ability
1 (poor) to 5 (excellent)

Rate the am’t you use **Spanish** currently
1 (hardly ever) to 5 (always)

<table>
<thead>
<tr>
<th>Rate your <strong>English</strong> abilities</th>
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<tr>
<td>Speaking</td>
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<tr>
<th>Rate your <strong>Spanish</strong> abilities</th>
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<tr>
<td>Speaking</td>
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Language and country history

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<th>Age</th>
<th>Country</th>
<th>Language(s) heard</th>
<th>Language(s) spoken</th>
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Family’s language background

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<th>Native language</th>
<th>Bilingual?</th>
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<tr>
<th>Other languages</th>
<th>Lg used w/ P as a child</th>
<th>Lg used with P now</th>
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<table>
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<tr>
<th>Rate their English ability</th>
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Current language environment

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<tr>
<th>What do you speak at..?</th>
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<tr>
<td>Home / roommate</td>
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General questions

How comfortable do you feel in the American culture?
1 (not comfortable) to 5 (very comfortable)

How polite do you think Americans are in refusing invitations?
1 (not polite) to 5 (very polite)

How polite do you think **people from your country** are in refusing invitations?
1 (not polite) to 5 (very polite)

What differences do you perceive between Americans and Latinos when performing refusals?

125
VITA

Clevia Pérez is an international student from Venezuela. She received her Bachelor’s degree in English Education from Universidad de Los Andes in Venezuela in 1995. She won a national scholarship to pursue graduate studies in the United States. In 2000, Clevia received her Master of Arts in Applied Linguistics to TESOL from the University of South Florida. Immediately after that, she returned to Venezuela to work at Universidad de Los Andes in San Cristobal, as part of the Modern Languages Department staff. Clevia later applied to the Louisiana State University interdepartmental program in Linguistics which she entered in 2008. In 2012, Clevia had to return to work in Venezuela; besides teaching linguistics and English for Academic Purposes, she completed her dissertation work. Clevia is a candidate to graduate from LSU and plans to continue working and researching in the Applied Linguistics field in her country of origin.