Willing to Talk?

Communication traits and International Students' use of Native and Nonnative Languages in a Foreign Educational Environment

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ABSTRACT

The number of international students following programs abroad has doubled in the last decade. This has led researchers to take interest in foreign students' experiences in international educational environments in order to better understand and improve their international encounters. One of the leading reasons for stress and failure of international students was found to be the language barrier. This language barrier has been seen as strongly correlated with communication apprehension and perceptions of communication competence. More precisely, international students feel that their self-perceived communication competence and willingness to communicate are lower in their nonnative language compared to their native one. This also leads them to experience communication apprehension and essentially withdraw from talking altogether. Those three reasons have been researched in the past as communication traits which correlate and predict one another. In order to understand and help international students and instructors with the problems they face, a deeper understanding of those communication traits relating to language needs to be gained. Therefore, this study combines the common variables which are said to create problems for international students and explores how communication traits vary in the use of native and nonnative languages. In order to analyze a truly international environment, responses from students coming from 30 different countries were collected. Through the use of a quantitative survey which was then statistically analyzed it was discovered that students had higher mean scores in their native language compared to their nonnative ones for all three communication traits. All three communication traits had a statistically significant correlation which corroborated previous research. Additionally, their preferences for who they talk to and how in terms of context were found. Generally, international students felt most competent and were most willing to communicate in dyads or small groups with friends and acquaintances. Finally, the research explored the prediction powers of the three communication traits. It was discovered that between self-perceived communication competence and willingness to communicate the later was a better predictor of native language communication apprehension and that native language communication apprehension was the best predictor of nonnative communication apprehension. More research concentrating on an international educational environment needs to be done in order to gather information especially relating to language since it is the major problem international students face while following programs abroad.

KEYWORDS: *Communication traits, International Students, Nonnative Language*

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"If I have seen further, it is by standing on the shoulders of giants."

~ Sir Isaac Newton ~

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Introduction

Communication traits

       The Organisation for Economic Co-operation and Development reported that in the past ten years the amount of students following international programs abroad has doubled (OECD, 2013). For most of these students studying in a foreign country this means they have to communicate in a nonnative language. It comes as no surprise then, that scholars have been concerned with international students' communication skills (Zhou, Jindal-Snape, Topping & Todman, 2008). In particular, researchers have been exploring how certain communication traits have affected people's success and adaptation in their new countries of residence (Hsu, 2010; Zhou et al., 2008).

       "A communication trait is defined as an individual's consistencies and differences in message-sending and -receiving behaviors (Infante & Rancer, 1996 as cited in Myers & Anderson, 2008, p.48). Essentially, the communication traits are suggested to be part of people's behavior and as such, some researchers have explored cultural differences between them (Hsu, 2007; 2010; McCroskey & Richmond, 1990). Studies related to communication traits initially revolved around communication anxiety, reticence and exhibitionism (McCroskey, 1970). Communication anxiety, commonly known as communication apprehension (CA) was defined by McCroskey (1977) as the "individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (p.78). At first, researchers were interested in exploring types of anxiety such as stage fright, however Phillips (1968) discovered a larger pattern – people afraid to communicate in general. In other words, fear was not context-specific, but a broad notion which was present in people's attitude towards communicating altogether. McCroskey (1970) unfolded this idea and started the concentration in future research on communication anxiety. Not long afterwards, researchers discovered a connection between communication anxiety and another communication trait – willingness to communicate (Burgoon, 1976). High willingness to communicate was related to, or even resulted in low communication apprehension. The global construct was then known as the unwillingness to communicate and the scale which was created in order to measure it was named after it (Burgoon, 1976). It was not until 1985 that the construct and the measure were renamed to the Willingness to Communicate instrument and measure (McCroskey & Baer, 1985). Essentially, the measure represents a global occurrence of people feeling unwilling or willing to communicate in certain situations.

       Failing to communicate could sometimes be crucial in one's life (Wiemann & Backlund, 1980). People's communication skills were said to be connected to their "ability to function in society" (Wiemann & Backlund, 1980, p. 186). However, there is a lack of concentration on

educating people how to communicate; communication traits are perceived as personal behaviors which vary per person. Scholars and educators around the 1970s were concerned with understanding and teaching communication competency in order to improve students' effectiveness in the educational environment. It makes sense that scholars and professionals are becoming more concerned with learning about people's communication traits. Nowadays, there are companies providing workshops on being a competent communicator and mastering intercultural communication for people who did not study that in school and experience communication anxiety.

Both fear of communicating and willingness to communicate are strongly related to communication competence (Croucher, 2013a; Richmond, McCroskey & McCroskey, 1989; Teven, Richmond, McCroskey & McCroskey, 2010). The theory on communication competence (CC) dates back to the late 1950s, however it was Hymes (1971) who made it popular by defining it as the knowledge a person has on the use of language (as cited in Wiemann & Backlund, 1980). In recent years, communication competence is more commonly known as Self-Perceived Communication Competence or SPCC. It is typical that concepts such as communication competence have been researched throughout the years under different names. This is due to the fact that the three concepts come from a long history of concentration on communication traits and skills.

Once the theory on communication competence developed further it was shown to be highly associated with the other two (willingness to communicate and communication apprehension). Those three theories have been monopolizing the studies on communications traits in the last three decades. At first, scholars were interested in discovering patterns of those three theories in people' native tongues and American culture studies dominated the sphere (Sallinen-Kuparinen, McCroskey & Richmond, 1991). Studies in different cultures, different types of students and in nonnative languages followed since the 1990s (Chesebro et al., 1992; Rosenfeld, Grant III & McCroskey, 1995; Sallinen-Kuparinen et al., 1991). The majority of the studies have been concentrated on students – domestic and, recently, international. Students enrolled in an international program who have to speak a foreign language often experience communication apprehension and may find themselves unwilling to communicate. As a result their communication competence declines.

For many students, an international educational offers many new opportunities and experiences. However, some of those new experiences present a difficulty – for example, experiencing a culture shock. Millions of young people worldwide choose to become international students and they are vital to expanding the knowledge about intercultural education (Zhou et al., 2008). Therefore, it is no wonder that many scholars have been concerned with international students' adaptation to their new unfamiliar environments (Zhou et al., 2008). A few components are needed in order for international students to adapt. Zhou et al. (2008) reviewed some of those components and saw that one of the most important ones was language. Language is then further

connected to communication competence and helpful when communicating with host nationals or for creating friendships. Basically, if an international student does not feel confident in his or her language skills this could negatively affect their whole foreign experience – from making friends to educational achievement.

When talking about international students, it is easy to image how this could have an impact on their relationships with fellow students or instructors. Essentially, students would often feel uncomfortable during time spent living abroad and therefore they would experience communication apprehension and low willingness to communicate, as a result of low self-perceived communication competence. The conditions indicate that speaking a nonnative language often negatively impacts students' relationship with peers, classmates and instructors (Jung & McCroskey, 2004). When a person feels uncomfortable and awkward during a conversation he or she might choose against communicating altogether. For example, international students that feel unsure about their language skills might decide to avoid asking their professor or fellow classmates for assistance in learning. Because of this students' educational success suffers.

Studies on communication apprehension have suggested that when students are in another country, speaking a language different than their mother tongue, amplifies their anxiety when communicating. The research also supports the point mentioned earlier that such anxiety leads students to decreased willingness to communicate (Barraclough, Christophel & McCroskey, 1988; Dillon & Swann, 1997; Jung & McCroskey, 2004). Both Communication Apprehension (CA) and Willingness to Communicate (WTC) have been explored and said to be associated with self-perceived communication competence (SPCC) (Barraclough et al., 1988). A definition of communication competence is difficult to agree upon. Even though one of them was presented earlier in this chapter it has been given many interpretations throughout the years. For the purpose of this research SPCC is seen as a measure of how competent in communicating a person thinks he or she is (McCroskey, 1982; McCroskey & McCroskey, 1988).

To illustrate the definition, imagine a student that has to present in a nonnative language in front of the whole class and his or her instructor: if he or she feels competent, he or she would be more willing to present and would experience less anxiety. In the opposite scenario where he or she does not feel competent, anxiety may take over. Should the student feel that they have consistently failed at the task, it would eventually affect their perception of their own competence in presentation over the course of time. Looking at SPCC in this way is due to the fact that many scholars have proven that what is important in communication is the perception of one's own skills, rather than the actual skills one possesses. In other words, what makes people good communicators is whether they perceive themselves as such.

Relevance

The relevance of expanding the research on self-perceived communication competence, willingness to communicate and communication apprehension when it comes to native and nonnative language in speakers is twofold. First, the majority of studies on this issue have focused on American culture (Barraclough et al., 1988; Burroughs, Marie & McCroskey, 2003; Chesebro et al., 1992; Hsu, 2004, 2007; Lu & Hsu, 2008; Mansson & Myers, 2009; McCroskey, 1982; McCroskey & Baer, 1985; Richmond et al., 1989; Rosenfeld et al., 1995; Sallinen-Kuparinen, et al., 1991; Zimmermann, 1995). Even though Sallinen-Kuparinen et al. (1991) already pointed out at the very beginning of research on SPCC that there is a dominance of Anglo-American studies, it is seen that this dominance has continued. Even though researchers have been more interested in exploring different cultures, the majority of comparisons reflect back to the American culture and studies.

Studies showed that communication apprehension has an effect on communication learning and it affected communication competence, skill and willingness to communicate (McCroskey, 1982). They went deep into exploring people's reactions when confronted with a choice whether to communicate or not. McCroskey (1982) takes the view of CA as a communication trait or behavior and sees is it as a response to the environment in which a person is in. For international students, an unfamiliar environment would often cause a fight or flight situation, with flight being the most common choice. They would choose not to communicate, keep quiet in class or miss out on the opportunity to learn more. This could reflect poorly on their personal and academic achievements which could have harsher consequences altogether. In a study on mental health concerns for international students', the language barrier was seen as "probably the most significant, prevalent problem" (Mori, 2000, p.137). "The language barrier has direct negative implications for the academic performance of students and for the teaching performance of graduate teaching assistants" (Mori, 2000, p. 138). However, studies relating to students' culture shock and other tough foreign experiences are very U.S. – oriented to this day.

To be fair, a few studies have concentrated on specific cultures; French (Croucher, 2013a), Thai (Dilbeck, McCroskey, Richmond & McCroskey, 2009), Swedish (Watson, Monroe & Atterstrom, 1989) and Iranian (Zarrinabadi, 2012). Intercultural studies have been developing more in the past decade. Studies found that students with a high level of self-perceived communication competence have a higher level of willingness to communicate (Dilbeck et al., 2009; Zarrinabadi, 2012). The French research went even deeper in its aim to explore differences between self-perceived communication competence, willingness to communicate and communication apprehension. It measured them on a religious level, specifically it studied Muslims and Catholics (Croucher, 2013a). The study found that Catholics experience less communication apprehension; however Muslims are more confident in their self-perceived communication competence (Croucher, 2013a). These

results could be due to immigrant status or due to a difference in individualistic and collectivistic cultural traits (Croucher, 2013a). Dilbeck et al. (2009) and Zarrinabadi (2012) found differences in SPCC, WTC and CA across contexts and receivers. Generally speaking, studies showed that cultural background matters when it comes to communication traits (Zarrinabadi, 2012). All of those findings, however, have been very cultural-specific. This could also be part of the reason why the three theories are seen as a trait rather than a context-based behavior.

Findings about cultural differences when it comes to self-perceived communication competence, willingness to communicate and communication apprehension and their generalizability are helping researchers to piece the information on communication traits together. Hopefully, such research would result in helping international students to fit in in their foreign environments. However, there are two limitations to generalizing the research done so far. First of all, so many foreign students follow international programs that research on cultures could lack the necessary conclusions. Basically, research should concentrate on the things they have in common such as, in most cases, not communicating in their mother tongue. As mentioned earlier, language is vital for international students' educational and personal success as it relates to adaptation overall (Zhou et al., 2008). A culture-centered view of the three theories also could not truly explore the language differences which lead to different levels of SPCC, WTC and CA. In other words, only in a truly international educational environment can someone concentrate on researching foreign language and minimize culture as a factor. Furthermore, an environment of a mixture of many cultures could tilt the scale towards exploring whether the three theories are truly traits and are not more context – dependent. Some research points towards that particular conclusion but it will be scrutinized in the theoretical framework chapter of this paper.

Second of all, researchers so far have been trying to generalize research and apply it to whole populations, when their participants have been mostly students. Majority of research has been using students as their units of analysis, but have not necessarily based their research questions around them. Instead, researchers talk about Iranians, for example, in general, but their research applies to students only. This study is specifically aimed at researching an international educational environment and has no claims over generalizing for whole populations. This provides better chances at generalizing for the studied population, makes the research feasible and drops one limitation of wrong inference.

Research Questions

A small amount of studies have focused on the use of a nonnative language (Jung & McCroskey, 2004; Liu & Jackson, 2008). However, most of them concentrate specifically on the use of a second language (MacIntyre & Charos, 1996; Matsuoka & Evans, 2005). MacIntyre and Charos (1996) point

out that whatever the reason people learn a language, the end goal is always to communicate. After all, it is through communication that people achieve their goals – meet people, work, get food, etc. Interestingly, MacIntyre and Charos (1996) suggested that the willingness to communicate in a second language might vary depending on context or groups. They suggest that more research is needed in that direction. This finding holds true for the suggestions made earlier – it is possible that because researcher so far has been concerned with cultures, information on language studies could bring new answers to the equation of SPCC, WTC and CA effects. The way this could be researched is due to the fact that the instruments of the three constructs mentioned previously – SPCC, WTC and CA, all possess contexts and SPCC and WTC also have receivers. Essentially, the instruments are equipped with questions, but maybe not the right crowd has been asked so far to answer when it comes to language studies. Also, because communication apprehension lacks receivers it also lacks research in this direction.

What is meant by lacking contexts is that communication apprehension together with willingness to communicate and self-perceived communication competence have been studied through the use of different measures. Those measures have changed over the course of time, however their core items have not – they include four contexts, namely public speaking, talking in dyads, talking in small groups and in a meeting, and three types of receivers (acquaintances, friends and strangers) (Mansson & Myers, 2009; McCroskey & Baer, 1985).

On that note, this study aims to expand the generalizability of the existing research. The reality is that very few studies have been concerned with finding additional theoretical parameters (Allen, O'Mara & Andriste, 1986; Dilbeck et al., 2009). However, learning more about international students' preferences could lead to possibly understanding and meeting their needs better when it comes to learning a nonnative language. For example, if it happens that international students feel more comfortable talking in small groups or dyad in their nonnative tongue, instructors could accommodate such needs with smaller study groups or one-on-one meetings. Such adjustments could improve the communication apprehension in the foreign language and the educational success of the students could suffer less. Therefore, it would be interesting to explore:

(**RQ1**) *How do preferences for receivers and contexts in willingness to communicate, self-perceived communication competence and communication apprehension vary in native and nonnative languages?*

Those contexts were developed in 1980 by McCroskey and Richmond and have kept their form since then (McCroskey, 1982). Furthermore, as pointed out above, the majority of the studies have been concerned with a U.S. environment and culture. Therefore, this study aims to expand

generalizability of the three communication traits beyond a U.S. educational context to a more international-educational context, based in Europe. This is also done with the intention to do two things at once. Basically, research has been highly concentrated on a comparison of cultures rather than a mixture of them and the use of a nonnative language. A highly international educational environment can provide more generalizable results of foreign language variance allowing the researcher to compare a mixture of results, rather than compare two groups based on their cultural difference.

Besides, research has shown that in addition to communication proficiency, how one perceives their own skills as a communicator is vital to their communication behavior and therefore to their relationships with others (Dillon & Swann, 1997; Sallinen-Kuparinen et al., 1991). The more individuals believe they are competent at communicating with various audiences, in a variety of contexts, the less people become anxious, and instead become more willing to actually communicate. Learning about those connections and perceptions has a practical value for communication in the educational context. For international students this means that if they feel competent as communicators they would be more willing to talk to peers and instructors, experience less anxiety in the unfamiliar country, and probably be more effective in gathering information necessary for academic success.

Respectively, this study also aims to follow the advice of Dilbeck et al. (2009) that "studies similar to this one, but with participants from other cultures, are needed to prepare people who are going to be called on to communicate in intercultural contexts" (p.1). As such, this study explores whether there are significant differences between international students' self-perceived communication competence, how willing they are to communicate and how apprehensive about communication in native and non-native languages they are. This is done through the following research question:

(**RQ2**) *What are the variations in communication traits within the use of native and nonnative languages in an educational environment?*

Furthermore, research so far has concentrated on correlation and association within the three constructs (Burroughs et al., 2003; Jung & McCroskey, 2004; Richmond, McCroskey, McCroskey & Fayer, 2008). In other words, simple relations within self-perceived communication competence, willingness to communicate and communication apprehension have been explored so far. Typically even, studies have taken into consideration only two of the theories, or rarely combined the three of them. In studies of different cultures the scores of the three instruments have been compared in native or foreign language. For example, one of the things Richmond et al. (2008) wanted to explore

was whether students' CA would be higher in their foreign language and their WTC and SPCC would be higher in their native tongue. Burroughs et al. (2003) compared the means of Micronesian students to US students of their SPCC, WTC and CA in their first and second language. Baker and MacIntyre (2003) found that WTC in a second language was correlated to CA in second language and WTC in first language. They also discovered that SPCC in a second language was not correlated to WTC in that second language. However, there is a lack of literature and testing on whether SPCC and WTC can cumulatively predict CA. To put it differently, research has been testing whether SPCC or WTC individually can predict CA, but not whether they could do it together. Furthermore, such an analysis could be employed in order to test for predicting results within and across languages. That is to say, within native and within nonnative languages and across native and nonnative. As a result, a third research question is proposed which aims to explore those predictions, namely:

(**RQ3**) *How well do Self-Perceived Communication Competence and Willingness to Communicate predict Communication Apprehension within and across languages?*

On the one hand, this study aims to expand the research on Self-Perceived Communication Competence, Willingness to Communicate and Communication Apprehension in terms of adding to it. On the other hand, another ambition this paper has it to find new information of the three theories in a mixture of cultures and to truly research language differences. Additionally, the idea would be to figure out preferences for communication from which international students and their instructors can reach a useful way of teaching and learning. It is hoped that this study would pave the way for others of the same international nature in order to provide useful findings for international students and teachers struggling to fit in in their foreign educational environments.

Chapter two of this paper provides a deeper understanding of the theoretical development of the three main theories discussed in the introduction, namely SPCC, WTC and CA. It also outlines in detail the problems of studying in a foreign educational environment faced by students on a daily basis. The chapter provides further reasoning for the research proposed in the introduction part of this paper and illustrates the findings of previous studies through a closer inspection. Chapter three discusses the methods implemented in order to figure out the answers to the proposed research questions and provides data about some of the preliminary analyses which needed to be conducted before proceeding with the rest of the analyses. Reasons for choosing quantitative methods are discussed. Chapter four includes and outline of the results of the analyses. In conclusion, the results are summarized and discussed in relation to the theory provided in chapter two and limitations and suggestions for future research are proposed. The survey employed in order to collect data for this research can be found in Appendix A of the thesis.

Theoretical Framework

As seen in the introduction chapter of this study, the three major theories around which the proposed research questions revolve are self-perceived communication competence (SPCC), willingness to communicate (WTC) and communication apprehension (CA). By the means of a developmental review in the following chapter, these theories will be traced from earlier to more current work, as means to establish useful conceptual definitions. The theories' measurements are mentioned briefly, since a more detailed review of them is given in the following, Method chapter of the thesis. The development of the theories is also separated from discussing their connections. In other words, some studies have been concerned with the correlations of SPCC, WTC and CA. Discussing those correlations towards the end of the chapter is done in order to first establish an idea of how the theories developed and what they represent now, and then discuss the studies researching their association and prediction of one another. In addition, such way of looking at them provides an easier understanding of what is missing in the theory relating to them so far. The theoretical framework also discusses the studies relating to contexts and receivers in more detail. But before all this, the background of international students' struggle with speaking a foreign language will be illustrated so that its connection to the theories can be visualized. Another way of looking at the way the theoretical framework is written is to think of a drawing of a tree. Starting by painting the trunk of the three – problems in speaking a foreign language, how those expand into three main branches – SPCC, WTC and CA and then view their leaves – the correlations of the theories and context and receivers as the furthest details.

The struggle to speak a foreign language

As stated in the introduction chapter, researchers have been interested in exploring students' struggle of learning a foreign language for a long time. Horwitz, Horwitz and Cope (1986) were wondering what leads some people to freeze when confronted with second language communication and why foreign language classes are a terrible experience for so many. The major reason for this stress is anxiety. And the main reason for this anxiety is pointed out to be speaking a foreign language (Mori, 2000). "Guiora (1983) argues that language learning itself is "a profoundly unsettling psychological proposition" because it directly threatens an individual's self-concept and worldview" (p. 8 as cited in Horwitz et al., 1986, p. 125). Some researchers even went so far as to suggest that difficulties in a foreign language may stem from problems that already exist in people's native language skills (Sparks & Ganschow, 1991). Essentially, what they suggested is that aptitude is what drives second language learning. Additionally, anxiety was already viewed as a

communication trait, rather than a context-driven behavior. By suggesting that anxiety in a second language could stem or be related to anxiety in the first language researchers gave CA a direction.

Following research concentrated on the idea that anxiety was central to second language learning and communication. After Horwitz et al. (1986) came up with an instrument to measure classroom anxiety they found that anxiety correlates negatively with achievement. Horwitz (2001) discussed those early findings and made claims that anxiety was more specific rather than a person's trait. In its own right, this holds true. Essentially, anxiety was later recognized as a trait anxiety, or more specifically as part of the communication traits discussed in this study. In addition, they are defined as communication traits and not simply traits on purpose.

Once most researchers agreed that anxiety plays a major role in second language learning and communication (MacIntyre, 1995), they began being interested in how this anxiety affects other communication traits. MacIntyre, Noels and Clément (1997) were interested in testing how accurately students can predict their communication competence based on their communication anxiety and their actual language skills. The researchers did so by testing students on the perception of how competent they would be in performing tasks relating to their second language and then testing their actual knowledge. "Anxiety relates to both what the participants say and how they say it" (MacIntyre et al., 1997, p. 278). In other words, anxious participants communicated less and lacked clarity in the way they expressed themselves.

It can be seen then, that researchers interested in international students' academic and personal achievements in a foreign country relate mostly to their langue use. Additionally, this concern has been more specifically studied in terms of international students' perceived communication and their apprehension towards communicating in a nonnative language.

Self-Perceived Communication Competence

Scholars have not yet agreed on a concrete definition of SPCC but tracing back the name of the concept provides an interesting way of exploring it. At first, majority of studies were concerned with defining competence. Two directions of research were evident – a cognitive one and a behavioral one (Wiemann & Backlund, 1980). In the 1960s competence was viewed more as the competence to command a language – a linguistic competence called communication competence (CC). Later, scholars began wondering about people's perceptions of their competence and therefore afterwards added the 'self' to the name of the theory (Barraclough et al., 1988).

In a less brief explanation, theory in CC began already in the late 1950s (Wiemann & Backlund, 1980). Interest in the theory of SPCC and/or CC grew immensely after Hymes (1971) added the view on it as the knowledge a person has on the use of language (as cited in Wiemann & Backlund, 1980). In a review of the literature on anxiety, McCroskey (1982) discusses different

constructs related to it [anxiety] and mentions that communication competence (then related to reticence) is the broadest construct when it comes to public communication. He further points out that if someone has achieved their goal while communicating by using a specific communication behavior, he or she would develop positive expectations towards such behavior. Essentially, the person's perception of his or her communication behavior would be influenced by his or her positive or negative experience. In this scenario, communication competence was then seen as an observation whether a person has an *appropriate* communication behavior (McCroskey, 1982).

Different dimensions of CC were explored later on and the limitations of the theory started to be more obvious. They mainly revolved around the inability to define it (Redmond, 1985). McCroskey and McCroskey (1986) and McCroskey and Richmond (1985) in researching willingness to communicate discovered that people's perception of their communication competence is just as important as WTC (as cited in Barraclough et al., 1988). Barraclough et al. (1988) point out that "it is what a person thinks he/she can do not what he/she actually could do which impacts the individual's behavioral choices" (p.188). From this point it could be seen that while still not creating a firm definition of CC, researchers were discovering what it is not and thus defining it by exclusion. That is to say, CC was seen as different from WTC which is a step towards understanding it better. This is a vital step in researching the three theories which were very intertwined in the beginning of studying them. This is most evident in the WTC and CA sections since they are the older theories and WTC in a way stems from CA.

It took almost two decades for the construct of self-perceived communication competence to take shape. In the beginning it was strictly related to how other people perceive someone and was had a strong relation to cognitive skills. First, it was defined as how knowledgeable a person appeared in his command of a language. Then how appropriate his or her communication behavior was. And finally, to how competent a person perceived himself or herself to be as a communicator. Once the construct was formed, its measure emerged.

In the late 1980s the measure for the self-perceived communication competence construct was developed by McCroskey and McCroskey (1988) and used by researchers interested in SPCC since then. The self-perceived communication competence measurement, however, was based on an earlier understanding of CC – people's ability to pass on information (McCroskey & McCroskey, 1988). Using the newly developed SPCC measure, Richmond et al. (1989) expanded the research on self-perceived communication competence by concluding that it not only had strong correlation with willingness to communication but also with communication apprehension. Seeing SPCC highly related to the other two concepts is another point which illustrates the intertwined theoretical development of the three theories. However, up until that point, research on SPCC was strictly oriented to the U.S. Once the measure for SPCC was formed, research began to expand into other

cultures and personal characteristics and preferences. At first, researchers interested in SPCC compared Fins to Americans (Sallinen-Kuparinen et al., 1991). Some looked at at-risk students in the U.S. (Chesebro et al., 1992) as well as academically gifted students (Rosenfeld et al., 1995), Chinese in Taiwan and Americans (Hsu, 2004), Americans and Taiwanese (Hsu, 2007), Chinese and Americans (Lu & Hsu, 2008), Thai people (Dilbeck et al., 2009), Swedish and American (Mansson & Myers, 2009), Iranian (Zarrinabadi, 2012) and French people (Croucher, 2013a).

Since cultures are in contact more than ever before, being able to communicate has become even more valuable. Therefore, exploring different cultures' communication traits and behavior is integral to understanding them better. When it comes to students though, their perception of their communication competence and their willingness to communicate are vital for their success. That is, both personally in terms of creating different relationships and networks and academically in terms of reaching educational goals.

Only a few of the studies relating to SPCC have concentrated on differences between first and second language self-perceived communication competence (Burroughs et al., 2003; Jung & McCroskey, 2004; Richmond et al., 2008). In the majority of the studies a connection between SPCC, willingness to communicate and communication apprehension can be observed. Therefore, looking into the development of the theories on willingness to communicate and communication apprehension is an integral part of understanding the SPCC measure and communication behavior in general.

Willingness to Communicate

Similar to the SPCC construct, WTC was first known as a predisposition towards communication and was called the Unwillingness to Communicate construct. More specifically, it was a predisposition which represented "a tendency to avoid or de/value communication" (Burgoon, 1976, p. 60). This definition is yet another echo of how related the three theories discussed in this study are. After all, communication apprehension is defined as the fear of real or anticipated communication. Further evidence is that when discussing unwillingness to communicate, Burgoon (1976) talks about five more terms connected to it among which is CA. To put it differently, the first definitions of the constructs were very similar and almost measuring the same thing. Throughout the years they drifted apart and started measuring different things.

In the late 1980s the construct of *willingness to communicate* shifted towards an understanding of a general personality trait when it comes to talking (McCroskey & Richmond, 1987). Furthermore, some scholars have suggested that WTC is more of a cultural trait; however over the years the argument grew heavier on the point that WTC is more dependent on context, rather than culture (Barraclough et al., 1988). This is due to the fact that situations such as previous

encounters, mood and motivation for communication are the usual suspects when it comes to measuring whether a person *feels like talking* (Barraclough et al., 1988).

Unwillingness to communicate (UTC) was mentioned in studies relating to both SPCC and CA. McCroskey (1982) when discussing a reconceptualization of CA talks about unwillingness to communicate as a term relating to, but broader and encompassing CA. In other words, he saw UTC as an umbrella term and CA as a specification of it. "Unwillingness to communicate is concerned with one of the reasons that may not do so [communicate effectively]; and CA is concerned with one of the reasons that people may be unwilling to communicate" (McCroskey, 1982, p. 141).

The first measure that was closest to measuring WTC was developed by Burgoon (1976) and, as expected, called the 'Unwillingness-to-Communicate Scale'. Soon after, Mortensen, Arntson and Lustig (1977) developed the Predispositions toward Verbal Behavior scale (PVB) which was supposed to measure people's predispositions to communicate. However, the scale was developed in a moment in time, when WTC was still seen as an umbrella term for CA. Essentially, UTC and CA were very similar and the scale ended up measuring something similar to anxiety. This resulted in a very high correlation between PVB and CA and therefore called for a new, valid, scale of UTC.

That new scale was developed by McCroskey and Baer (1985) and renamed the Willingness to Communicate Scale. Just as the SPCC one it included the same four communication contexts and three types of receivers (McCroskey & Baer, 1985). The WTC scale was used later by McCroskey and Richmond (1987), who concluded that lower levels of WTC lead to less effective communication and negative communication competence perceptions. Furthermore, research showed that in an educational environment, "students with a high level of willingness to communicate characteristically have all the advantages" (McCroskey & Richmond, 1987, p.152). In other words, WTC also was seen as a major reason for communication failure or success. U.S. research found that instructors do not have a passive opinion of students who are less willing to communicate, they even develop negative expectations. The same conclusions have been observed for peers as well – students that are more willing to communicate tend to have more friends (McCroskey & Richmond. 1987). These findings clearly illustrate why a better understanding of what causes low levels of WTC is needed in research. Pinpointing the problem could lead to raising the WTC in classrooms in order to give foreign students a chance at better academic achievements.

The generalizability of research on willingness to communicate was questioned by Barraclough et al. (1988) as they set on to compare the U.S. with Australia and found out that high willingness to communicate differed per culture. Furthermore, WTC is said to differ per context and receiver, however if the general level of WTC is high, the correlations are also higher (McCroskey & Baer, 1985). In plain English, one person or culture could be more willing to communicate in a dyad with strangers as opposed to a small group with friends, but they are still relatively willing to

communicate in general. Over the years the same results have been observed for numerous American and international studies relating to self-perceived communication competence and willingness to communicate. For example, Sallinen-Kuparinen et al. (1991) concluded that Micronesians were the least willing to communicate out of the countries testes so far (Finland, USA, Australia, Sweden, Micronesia), followed by Finnish students. All the countries had the same results when it came to willingness to talk to strangers and friends – where everyone was least willing to communicate with strangers and most willing when it came to friends (Sallinen-Kuparinen et al., 1991). The WTC construct and scale went through numerous tests until they were seen as completely valid (McCroskey, 1992). The difficulty was in differentiating between CA and WTC, since they also shared many common behavioral traits, like shyness, for example.

However, it was not until the 21st century that scholars became interested in measuring willingness to communicate in a second language (Burroughs et al., 2003; Clément, Baker & MacIntyre, 2003; Jung & McCroskey, 2004; Richmond et al., 2008). A few studies found that some cultures are more willing to communicate in their native tongues than other cultures (Burroughs et al., 2003). For example, "Micronesian students with regard to their first language (not English) were significantly less willing to communicate than U. S. students responding with their first language (English)" (Burroughs et al., 2003, p.235). Those studies were still very culture oriented though, so their findings cannot be as useful as a study done in a mixture of cultures, which is the typical environment of students following programs abroad.

Finally, going back to the idea that WTC or UTC was an umbrella term for CA and is proven to be related to it in more current research (Hsu, 2010; Mansson & Myers, 2009), the CA construct will be scrutinized in the following section of this chapter.

Communication Apprehension

The definition under which most research on CA is done recently states that CA is the "individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (p.78). Studies on communication apprehension have augmented since the early work (McCroskey, 1982). The first, and oldest, conceptualization of CA is stage fright (Clevenger Jr, 1959), which makes sense; public speaking has been important since at least ancient Greece. Specifically fear, or anxiety when communicating orally, has been of interest to researchers since the early 1930s (McCroskey, 1977) and communication apprehension, especially, was the concern of more than 200 studies from the 1970s until the 1980s (McCroskey, 1982). Besides stage fright (Clevenger, 1959), conceptualizations of communication apprehension included reticence (Philips, 1968), feeling shy (Zimbardo, 1977) or audience sensitivity (Paivio, 1964) (as cited in McCroskey, 1977). And as discussed in the previous section, CA was seen as a more specific reason

for avoiding communication under the broad definition of unwillingness to communicate (McCroskey, 1982).

In the following year, McCroskey (1983) once again attempted to reconceptualize CA and also discussed what the causes of CA are. Among them were novelty and unfamiliarity which connect straight to the introduction chapter of this thesis and the relevance of the research. International students experience novelty and unfamiliarity and those cause them to experience communication apprehension. McCroskey (1983) resolves that high CA affects communication competence and could potentially have a long-lasting effect on communication behavior. "A major conclusion we can draw from this conceptualization of CA and communication learning is that high CA is highly associated with ineffective communication" (McCroskey, 1983, p. 37). Once the general definition of CA was agreed upon, some researchers began analyzing CA in different cultures (McCroskey, Fayer & Richmond, 1985). Other researchers, realizing the harm of high levels of CA set out to find a treatment for it (McCroskey & Beatty, 1986). A definite answer on the matter was not reached.

However, in terms of connections between the theories, research in Australia illustrated a strong correlation between communication apprehension and self-perceived communication competence (Barraclough et al., 1988). The research was further proof that individuals with high communication apprehension levels prefer withdrawing from communication altogether (Barraclough et al., 1988).

Some scholars studying communication apprehension in a first and second language have used levels of the other two theories in the first language to test whether they could be predictors of CA in a second language (Jung & McCroskey, 2004). As seen self-perceived communication competence, willingness to communicate and communication apprehension are strongly interconnected, and specifically SPCC is observed to have a positive relationship with WTC and a negative one with CA (Barraclough et al., 1988). Furthermore, it was found that those relationships vary between cultures but keep their general direction. That is, one culture could be more willing to communicate with a small group of friends rather than a dyad of strangers, but in general the willingness to communicate remains as a trait across contexts and receivers (Dilbeck et al., 2009; Zarrinabadi, 2012). In addition, differences between first and second languages were observed and showed that people's self-perceived communication competence, willingness to communicate and communication apprehension varied when speaking their native tongue.

Furthermore, even though studies have researched mainly students, majority of studies have concentrated on different cultures (therefore not necessarily on different languages) and not on nonnative languages per se. Therefore, further research is needed in order to better understand the variation in communication traits when students communicate in their native as well as

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nonnative languages in order to better understand and overcome the difficulties they face when living in a foreign country. What is more, learning about the predictive powers of communication traits is beneficial for concentrating on what is causing change in them. To illustrate this point, imagine that someone's willingness to communicate cannot predict their communication competence but can predict their fear. Therefore, it would make sense for international students to concentrate on bettering their WTC in order to fight the communication apprehension. The next section explores the predictive powers and correlations between the variables in order to find similar information.

Results

Now that the three theories have been explored, a more in-depth discussion of their findings is in order. For all three theories studies were initially concerned with cultural differences and only recently there has been interest in language differences. In addition, some studies were concerned with differences between types of students (Chesebro et al., 1992; Rosenfeld et al., 1995). Sallinen-Kuparinen et al. (1991) set out to discover differences in communication traits between Americans and Finnish people. They discovered that when it came to self-perceived communication competence and communication apprehension, Fins and Americans felt the same way. Differences were found in their willingness to communicate. Sallinen-Kuparinen et al. (1991) also compared their results to previous ones based on Swedish, Australian and Micronesian people. For all five nations, self-perceived communication competence had the highest scores, followed by communication apprehension and willingness to communicate. The WTC results had the most variation out of the three between different nationalities. Hsu (2004) did a study on communication apprehension in the U.S. and Taiwan concluding that culture and (thus) personal traits play a major role in people's communication anxiety. Later, Hsu (2007) repeated the study this time including WTC and SPCC among other measures. The Taiwanese were more apprehensive, less confident and less willing to talk compared to the Americans. Mansson and Myers (2009) compared Swedish and American participants and found that Americans' results were once again higher. The most recent studies were interested in Iranians (Zarrinabadi, 2012) and French (Croucher, 2013a). Zarrinabadi (2012) was concerned with context and receivers differences of Iranian students as well as total score differences between the cultures researched so far. Croucher (2013a) compared Catholic Christians to Muslims as part of studying SPCC, WTC and CA differences in France. Those studies, while all valuable for building and testing the three theories, have been majorly concerned with cultural differences and U.S. results. The majority of them have used students as their units of analysis, however their research questions have not asked about students per se. In fact, they have aimed at making inferences about the general population based on students. Furthermore, recent

studies have not taken into consideration the fact that international students' numbers have been raising rapidly.

A few studies done so far are similar to the one at hand in that they were interested in correlations and prediction powers of the three instruments within and across cultures. This section provides a detailed illustration of those studies, given that they provide a solid background of the theories' associations and the methods used in order to explore them. Furthermore, a comprehensive exploration of what has been done so far means understanding what is missing in the theory which would serve as further proof for the chosen research questions.

As indicated, most of the studies have been dealing with different cultures and various types of students, however some of those studies have a stronger connection to the case at hand and some of their results might be useful in comprehending it. The first such study is one by McCroskey et al. (1985) who set out to explore differences between U.S. and Puerto Rican students. McCroskey et al. (1985) investigated whether SPCC in the second language could predict CA in that second language as well as how predictive CA in the first language was for CA in the second one. First, they found that second language SPCC and CA were significantly correlated and their association was higher than the one for first language. Second, they found that CA in the first language was a better predictor of CA in the second one than SPCC in second language.

Richmond et al. (1989) on the other hand, wanted to find the predictability power of a few communication traits on SPCC. They gathered participants for two studies – one of them included anomie and alienation, self-esteem, WTC, CA, introversion and neuroticism and to the other sociability and argumentativeness were added as predictors. Results indicated that native WTC and CA are strong predictors of native CA. However, the study did not provide any cross-language predictions.

As mentioned briefly before, it was not until two decades ago that scholars became somewhat interested in measuring WTC, SPCC and CA in a nonnative language. Burroughs et al. (2003) tested Micronesian students and reported Pearson correlation results for first and second language differences. For SPCC and WTC the results were as expected – both instruments were higher in students' first language. However, there was no difference in communication apprehension ($r = 76.7$ for first and $r = 76.7$ for second language).

Furthermore, most scholars who compared language differences compared them within the same environment of studying them. That is, students were mainly questioned about their native and nonnative languages in their native language country. For example, Baker and MacIntyre (2003) were concerned with immersion and nonimmersion students whose native tongue was English and who were studying French. Their analysis shed some light on the SPCC, WTC and CA relations in a second language. Nonimmersion students barely speak their second language in class,

whereas immersion ones are required to speak it in and outside of classes – much like following an international study program. Baker and MacIntyre (2003) found that WTC in a second language is correlated with WTC in a first language and CA in the second. For nonimmersion students SPCC and WTC had a moderate correlation in a second language. When it came to immersion students' nonnative language WTC was correlated with CA but not SPCC. Furthermore, CA in the second language for all students was higher in their second language and it was especially so for the immersion students. "A negative experience, though, weighed more heavily on the immersion students, possibly because they expected better performance of themselves" (Baker & MacIntyre, 2003, p. 90).

      Jung and McCroskey (2004) were interested in predicting nonnative CA with native CA and SPCC. Furthermore they wanted to find out whether native SPCC or native CA would be a better predictor of nonnative CA. The later won (r = .87) compared to native SPCC (r = -.58) (Jung & McCroskey, 2004). CA in the native language was better in predicting CA in the foreign one even when it compared to years of speaking the nonnative language or time spent in the country where it is spoken. Jung and McCroskey's (2004) research is one among few reason for the third research question proposed here. RQ3 aims at filling the gap of lack of knowledge on native WTC's and SPCC's prediction powers over nonnative CA. More specifically, as can be seen so far researchers have tried to measure the predicting powers of native CA and WTC or native CA and SPCC on nonnative CA, but never combined native SPCC and WTC.

      One study was interested in predicting foreign language CA based on WTC (Liu & Jackson, 2008). However, this study was concerned with English language classroom anxiety and used the earlier Unwillingness to Communicate scale. The results indicated moderate positive correlation between the two as well as Unwillingness to Communicate as a predictor for foreign language CA based on a regression analysis.

      Another study, even though interested in cultural differences, found that international students, who lived in a foreign country, were more willing to communicate compared to their peers who lived back home (Lu & Hsu, 2008). The students analyzed in the study were Americans who lived in China compared to Americans living in the U.S. and Chinese living in the U.S. compared to Chinese living in China. Even though, those findings related to students' first language, the results were rather interesting. In general, students living in a foreign country showed higher levels of WTC. "These findings suggest that immersion experiences in a different culture have a positive influence on WTC" (Lu & Hsu, 2008, p.85). Lu and Hsu's (2008) suggestion was supported earlier by MacIntyre, Baker, Clément and Donovan (2003) who suggested that people living in a foreign country were more positive about communicating with internationals compared to people who do not or have not lived abroad. This finding also suggests that WTC could be a context-based trait, not

a behavioral one or communicational at all. As briefly mentioned in the introduction chapter, it is possible that the traits are more context-driven, however if no proper context research has ever been done it cannot be said so for sure. This is another reason why this research is also done in an educational environment with a high percentage of international students.

In the same year, Richmond et al. (2008) conducted a study which investigated the correlations between CA, shyness, assertiveness, responsiveness, compulsive communication, SPCC and WTC. The study, even though concerned with a second language as well as first, did not provide any results of a cross-language analysis. They found that all the positive communication traits such as responsiveness, SPCC and WTC were higher in the first language compared to the second one. From the three theories this study is concerned with, the correlations in first language indicated that both SPCC and WTC had a significant association with CA in the first language (r = .62 for SPCC and CA and r = -.48 for WTC and CA) (Richmond et al., 2008). The same was true for the results of the correlations between them in second language (r = .65 for SPCC and CA and r = -.54 for WTC and CA) (Richmond et al., 2008).

Teven et al. (2010) were the last researchers so far interested in correlations between the SPCC, WTC and CA measures. They set out to discover which self-perceived communication traits (out of six) could best predict SPCC. Among the six were CA and WTC. CA and WTC were also the strongest predictors of SPCC (r = -.62, p < .001 for CA and r = .68, p < .001 for WTC) (Teven et al., 2010). Furthermore, CA had a strong correlation with WTC (r = -.51, p <.001).

Based on these results of previous studies three hypotheses were proposed for the current study and those are the following:

$H0_1$: There is no significant (positive/negative) correlation between SPCC, WTC and CA in native language.

$H1_1$: Both SPCC and WTC significantly correlate with CA in the native language.

$H0_2$: There is no significant (positive/negative) correlation between SPCC, WTC and CA in nonnative language.

$H1_2$: Both SPCC and WTC significantly correlate with CA in the nonnative language.

$H0_3$: There is no significant (positive/negative) correlation between SPCC and WTC in native language and CA in nonnative language.

$H1_3$: Both SPCC and WTC in native language significantly correlate with CA in the nonnative language.

Only a few studies were interested in exploring the differences in contexts and receivers which exist within measures. As briefly mentioned in the Introduction chapter of this thesis, the instruments of the three constructs possess contexts and SPCC and WTC are also divided by receivers. The contexts are divided into public speaking, meetings, dyads and small groups and the receivers are friends, acquaintances and strangers. Very few studies have been concerned with finding differences between them. In addition, the ones who have explored some of those differences have done so only in terms of cultural differences. For example, differences between communicating in the different contexts and receivers have been found across different cultures which has added to the theory that those are indeed communication traits. However, studies of differences between languages could also explore the possibility of them being context-based. Therefore, the first research question in this study seeks to address the issue of differences in preference for contexts and receivers for the three instruments in native and nonnative language.

Contexts and Receivers

The first study which looked into exploring differences between contexts and receivers was by Allen, O'Mara and Andriste (1986). This was also the only study which was interested in exploring second language differences, although it involved studying a second language and not living in a foreign country where one has to speak it. They found that participants from four different regions differed in their context preferences when it came to speaking a second language (English). For example, Asians and Latin Americans were more scared to speak in small groups or in public compared to Europeans or Middle Easterners. Asians, were more anxious about interpersonal communication in their native tongue, while Latin Americans were uncomfortable in any context when it came to speaking in their nonnative language.

Dilbeck et al. (2009) set out to compare differences in Thai students' self-perceived communication competence and its sub-scores for contexts and receivers. The researchers were also interested in comparing overall SPCC scores of Thailand with previously researched counties. Dilbeck et al. (2009) found that in Thailand students' SPCC is highest when talking with acquaintances and the lowest for a friend which is the exact opposite for American students (Dilbeck et al., 2009). Even though Dilbeck et al. (2009) found some interesting results, the country score after all provide no information on languages.

Finally, Zarrinabadi (2012) found differences in SPCC, WTC and CA across contexts and receivers. Both Thai and Iranian students felt competent when talking with acquaintances in (small) groups and/or dyads. Interestingly, Thai students felt less competent when they were communicating with friends, whereas Iranians did not prefer strangers and public speaking. Overall, conclusions were pointing at the fact that cultures matters when it comes to communication

context and receivers preferences.

The reviewed literature indicated that three studies so far were concerned with exploring variations between contexts and receivers (Allen et al., 1986; Dilbeck et al., 2009; Zarrinabadi, 2012). Even more, only one of them was somewhat connected to a foreign language (Allen et al., 1986). Given the lack of studies on this topic and the relevance of it for helping international students' acculturation and therefore better academic achievement, the first research question was proposed and namely '*How do preferences for receivers and contexts in willingness to communicate, self-perceived communication competence and communication apprehension vary in native and nonnative languages?*'

Exploring the research on self-perceived communication competence, willingness to communicate and communication apprehension even further showed that only some research has been done in terms of understanding the correlations and predictive powers of the constructs. Studies showed that SPCC was related to both WTC and CA (McCroskey & Richmond, 1987; Richmond et al., 1989). Furthermore, quite a few studies illustrated the predictive powers of some communication traits in the first and second language. For example, McCroskey et al. (1985) found that SPCC in a second language and CA in a first language can predict CA in a second language. Additionally, CA in the first language was a better predictor of CA in the second one compared to SPCC in the second one. Jung and McCroskey (2004) discovered the same results. Richmond et al. (1989) wanted to predict native CA based on native WTC and CA. They concluded that both native WTC and CA are good predictors of native CA. Although Richmond et al. (2008) illustrated the correlations between SPCC, WTC and CA in first and second language, no study so far has combined SPCC and WTC in order to predict CA through a regression analysis. It could be seen that the dominant model so far has been to predict nonnative CA based on either (non)native SPCC or (non)native WTC.

Therefore, the second and third research questions proposed in this study are asking '*What are the variations in communication traits within the use of native and nonnative languages in an educational environment?*' and '*How well do Self-Perceived Communication Competence and Willingness to Communicate predict Communication Apprehension within and across languages?*' They aim to expand the research on correlations between the theories and fill the gaps in the research on predicting nonnative CA.

Method

In this chapter, following the theoretical framework, the method used for answering the three research questions is illustrated. First, this method chapter begins by explaining why quantitative methods, and specifically a survey, are used to tackle the above mentioned research questions. Second, the participants and sampling method chosen for this research are described. Third, the three instruments representing the operationalization of the research topic are elaborated on. Those instruments include the Self-Perceived Communication Competence scale (SPCC), the Willingness to Communicate scale (WTC) and the Personal Report of Communication Apprehension (PRCA-24). Fourth, the statistical analyses applied to the data are outlined to describe the process of deriving results.

Research Method – Survey

The research questions mentioned above call for the use of quantitative methods since they allow for measuring phenomena through analyzing numerical data (Muijs, 2004). The purpose of choosing quantitative methods revolves around increased generalizability of theory. Through quantitative research, results generate statistical evidence that empirically tests for validation. Furthermore, the generalizability of the quantitative method allows for making inferences about a larger number of participants while keeping the research generalizable. As described in the introduction chapter of this thesis, international students face certain problems when communicating in a nonnative language (Barraclough et al., 1988; Dillon & Swann, 1997; Jung & McCroskey, 2004; Zhou et al., 2008). To be able to generalize the results of this study means that implications connected to the wider world could be discovered. Furthermore, they could be applied to other fields to help expand the research on the communication traits.

The specific quantitative method used for this study is a survey. A survey is "particularly suited for canvassing opinions and feelings about particular issues" (Muijs, 2004, p.39). It is the finest method for "collecting original data" when the population, in this case international students, is too large to be questioned (Babbie, 2007, p.270). Essentially, this research revolves around a valuable understanding of communication traits of participants in the context of native and nonnative language use. The three instruments which will help canvass the opinions of the participants taking part in this study are the SPCC, WTC and CA scales. The SPCC instrument aims at providing information on how participants perceive their communication competence. The WTC one reflects on people's desire to initiate communication and the CA scale measures their fear of communication. The survey distributed for this research can be found under Appendix A.

Participants and Sampling

The proposed research has to do with collecting data in an international educational environment. This is done in order to be able to expand and also add to the culturally – centered research which exists already. Therefore, the target units of analysis for this study were international students enrolled in a program that uses English as the language of instruction. The data was collected through a self-administered online and offline survey which falls under the convenience sampling method (Croucher, 2013b). The online survey was distributed using the online software Qualtics. To determine if participants were qualified demographic items were included to ask about their nationality and native language as a measure of qualification. Participants who come from an English speaking background were excluded, as the theoretical assumptions about English as a foreign language of instruction do not apply. The biggest percentage of international students was Dutch (30%).

The sample was drawn from different networks of students in order to avoid bias. For example, the survey was distributed through online social media platforms and forums to different university groups. Through both online and offline surveys 224 responses (N = 224) were collected in total. 24 surveys were collected offline and 200 online using the online survey software Qualtrics. Using Qualtrics also allowed for easier cleaning and transferring of the data into an SPSS file. The online survey method also allowed for efficiency in data collection, since the link was shared in different social groups, fit for the target sample. Out of the 224 participants 16 did not indicate their gender and 17 did not indicate their age. Out of the 208 left, 146 participants were female (70.2%) and 62 were male (29.8%). And out of the 207 left 17.4% were between 15 and 20 years old, 72.5% were between 21 and 25 years old and 10.1% were between 26 and 30 years old. Finally, the sample was truly representative of different nationalities or a mixture of cultures and their use of a nonnative language – the surveyed students came from 30 different countries. However, even though a lot of nationalities were included in the survey, the sample does not represent a perfectly balanced mix. The highest percentages were Dutch (34.6%), Bulgarian (20%) and German (10%). The rest 35.4% of the respondents came from Armenia, Austria, Belgium, Brazil, Croatia, Czech Republic, Denmark, Estonia, France, Greece, Hungary, Iran, Italy, Lithuania, Luxemburg, Mexico, Poland, Republic of Korea, Romania, Russia, Slovakia, Spain, Switzerland, Taiwan, Turkey, Ukraine and Venezuela.

Instruments

The three instruments used in this study as the operationalization of the SPCC, WTC and CA theories are the self-perceived communication competence (SPCC), willingness to communicate (WTC) and Personal Report of Communication Apprehension (PRCA-24) scales. The survey was

based on the already existing statements from the three Likert-type scales. However, they were modified to suit the purpose of this research. The modification is explained for each instrument. Overall all three instruments possess high face validity and reliability since all three of them have been used by numerous researchers throughout the years.

Likert-type scale. The Likert-type scale is more commonly used as a 5 or 7 -scale response category. It presents an interesting way of analyzing the results given that by nature, it is an ordinal scale – the responses can be easily ranked from 'strongly agree' to 'strongly disagree'. "The particular value of this format is the unambiguous ordinality of response categories" (Babbie, 2007, p.188). Oridnality here is meant as the quality of the scale to measure precisely in categories, however to still leave the participants with freer choices. In this study, the scale ranged from 0 to 100, as to provide a more specific understanding of the range of accuracy. This also allowed for looking at the scale as interval or even ratio since it was possible that people felt completely incompetent (zero). With a range of 0 as 'nothing' and 100 as 'completely', students were asked to indicate their perceptions of their communication traits.

Self-Perceived Communication Competence (SPCC). The first instrument used in the study is the Self-Perceived Communication Competence measure, developed by McCroskey and McCroskey (1988). More recently, some researchers have used the SPCC instrument in order to measure cultural variables' relation to communication traits (Croucher, 2013a), how cultures value SPCC (Zarrinabadi, 2012), or whether cultural background affects communicative attributes (Mansson & Myers, 2009). It is a 12-item Likert-type scale instrument (McCroskey & McCroskey, 1988). Essentially, the SPCC instrument aims to measure respondents' perceptions about their own communication competence. The instrument involves four contexts and receivers. The instrument produces scores from 0 to 100 for four communication contexts, namely public speaking, meetings, dyads and small groups and for three kinds of receivers, namely friends, acquaintances and strangers. The measurement holds a strong reliability (Cronbach's Alpha = 0.85) and face validity given the long history of its replication.

Willingness to Communicate (WTC). The willingness to communicate scale was first developed by Heston and Andersen (1972) under the name of 'the Unwillingness-to-Communicate Scale' and was a 30-item Likert scale (as cited in Burgoon, 1976). The WTC scale produces a score from 1 (strongly disagree) to 5 (strongly agree). It has gone through various changes throughout the early years and later reexamined to measure the 'willingness to communicate scale' (McCroskey & Baer, 1985). Researchers have used it, among other things, to measure commutation traits relations among languages (Richmond et al., 2008), communication orientations (Hsu, 2007), and differences between people's willingness to communicate (Lu & Hsu, 2008). The Willingness to Communicate instrument that will be implemented in this study possesses strong face validity due

to its long history of replication (McCroskey & Richmond, 1987), similar to the SPCC one. It has also shown very high Alpha reliability scores between 0.85 and over 0.90 (McCroskey, 1992). It was developed by McCroskey and Richmond (1987) as a 20-item Likert scale instrument including 8 filler items. For the purpose of this research the 8 dummy variables were excluded and participants were asked to only answer 12 items on a scale from 0 to 100 (same as the SPCC instrument). The WTC instrument, just as the SPCC one, possesses four communication contexts (public speaking, meetings, dyads and small groups) and three kinds of receivers (friends, acquaintances and strangers).

        Personal Report of Communication Apprehension (CA). The communication apprehension measure is called the Personal Report of Communication Apprehension or PRCA-24. The scale has 24 items, which also uses a scale from 1 (strongly disagree) to 5 (strongly agree) (McCroskey, 1982). However, for the purpose of this research the scale was changed to 0 (strongly disagree) – 100 (strongly agree). Unlike the Self-Perceived Communication Competence and the Willingness to Communicate instruments, the Communication Apprehension one is only based on four types of context. There are six items for every type of context (public speaking, meetings, dyads and small groups). Similar to the other two instruments, PRCA-24 is found to be highly reliable (Alpha reliability over than 0.90) (Barraclough et al., 1988; Levine & Mccroskey, 1990; McCroskey, 1982). As discussed in the second chapter of this paper, the Communication Apprehension measure is older than the other two instruments. It has been implemented when researching communication apprehension of at-risk students (Chesebro et al., 1992), in relation to willingness to communicate and self-perceived communication competence (Buroughs et al., 2003; Mansson & Myers, 2009).

Statistical Analysis: Test for Concurrent Validity

        Using Qualtrics allowed for directly downloading an Excel file of the data which was organized and moved to an SPSS Statistics data sheet. Since most responses were recorded online, only a small number needed to be put into SPSS manually. The data was then coded into meaningful variables. For example the coded variable for question 1, statement 1 about native language stating "Present a talk to a group of strangers" was named *NPCgrS* (N = native, PC = SPCC, gr = small group and S = strangers). One set of communication trait variables was generated for native, and the other set of communication trait variables was generated for nonnative language. The rest of the questions were coded following the same logic. Afterwards, it was made sure that they were all turned into numerical values and had 'scale' or interval/ratio as a level of measurement. The demographic variables were labeled and coded with corresponding number for gender, age, nationality and native tongue (i.e. male = 1/female = 2, 15 – 20 = 1, Dutch = 1, etc.).

Model Descriptives. First of all, averages and standard deviations were reported in order to inspect the data before analysis could begin. In order to do so, all the variables of the native SPCC items were computed into a new variable. The same was done for WTC and PRCA-24 and for nonnative language. Afterwards, the items for the different subscores (contexts and receivers) followed, for both native and nonnative languages. Those variables were analyzed one by one for their means and standard deviations which were calculated in-part by hand since the SPSS result was not divided by the number of items that were initially put into the newly computed variables.

The means of the variables and their sub-scores were also calculated as the first step of answering the first and second research questions, namely RQ1: *How do preferences for receivers and contexts in willingness to communicate, self-perceived communication competence and communication apprehension vary in native and nonnative languages?* and RQ2: *What are the variations in communication traits within the use of native and nonnative languages in an educational environment*? Further examination of the data with the help of graphs was inspected to detect any presence of extreme outliers. Finally, an examination of the shape of the data assisted in determining if they fit the statistical assumptions associated with normal distribution.

Initially a Cronbach's Alpha reliability was estimated using SPSS in order to find out the internal consistency of the three measures and their sub-scores. Cronbach's Alpha is used in order to determine the degree to which the items in the survey are consistent with one another (Salkind, 2011). Cronbach's Alpha was also calculated for their sub-scores. The sub-scores are the communication contexts (public speaking, meetings, dyads, small groups) and receivers (friends, acquaintances and strangers). One exception is the PRCA-24 (Communication Apprehension) instrument which did not possess items to measure receivers, and so the instrument only produced reliability estimates of the communication contexts.

Overall, the SPCC and WTC instruments showed high overall and sub-score reliability. The PRCA-24 instrument, on the other hand, indicated an initial low reliability (Alpha = 0.38 for native and 0.29 for nonnative). After observing the data and the survey, it was discovered that the negatively worded items in the survey had to be reversed in SPSS. This was done after finding which items are not positively-worded in the Personal Report of Communication Apprehension instrument. First the scale was changed as to create lower numbers and to make the reversing process easier (1=0-9, 2=10-19, 3=20-29, 4=30-39, 5=40-49, 6=50-59, 7=60-69, 8=70-79, 9=80-89 and 10=90-100). Afterwards the correct values were reversed (1=10, 2=9, 3=8, 4=7, 5=6). All other variables had to be recoded into new variables with the same numbers (from 0-100 to 0-10) for a consistent representation of the results. The Cronbach's Alpha test was run again with corrected direction of item values that produced a highly reliable (0.92 for native and 0.93 for nonnative language).

Paired Sample T-Test. A Paired Sample T-Test was used as the second step of answering the first and second research questions proposed in this study (RQ1: *How do preferences for receivers and contexts in willingness to communicate, self-perceived communication competence and communication apprehension vary in native and nonnative languages?* and RQ2: *What are the variations in communication traits within the use of native and nonnative languages in an educational environment?*). It was implemented in order to determine whether the differences between means of communication traits and their sub-scores in the native and nonnative languages were statistically, significantly different. In addition, the contexts' and receivers' mean scores were also tested in order to find significant differences. A Paired-Sample T-Test is used when the scores are not independent or when the research possesses several measurements of the same units of analysis (Pallant, 2010). In this case, the latter applies. In other words, the same participants (in the same point in time) were asked to give responses (to the same questions under two different conditions) for two different measures – their communication traits in native and their communication traits in nonnative language use. The Paired sample T-test holds four assumptions which need to be met before proceeding with the analysis (Pallant, 2010). The first assumption that the Paired-Sample T-Test holds is that the dependent variable is measured on a continuous scale, which is the case in this study. The second assumption which needs to be taken into consideration is that the independent variable needs to consist of two measures of the same group. In this case, the participants were asked to report about their communication traits under two different conditions – native and nonnative language use. As discussed earlier, those measurements could be asking respondents to fill out the questionnaire at the same time (different points in time are for predictive validity) for two different cases (use of native and nonnative language). Lastly, the third and fourth assumptions state that there should be no outliers and that the data needs to be normally distributed. Those assumptions were already met, since they involve the preliminary analysis of the data.

Bivariate Pearson's Correlation. A bivariate Pearson's correlation was carried out in order to provide one of the answers to the third research question '*How well do Self-Perceived Communication Competence and Willingness to Communicate predict Communication Apprehension within and across languages?*' and/or to test the three hypotheses proposed in the theoretical framework. Essentially, this correlation analysis is used to measure the strength of the relationship (Pallant, 2010) within and across the three instruments. The test holds four assumptions: (1) the data needs to be interval/ratio, (2) the relationship needs to be linear, (3) no outliers should be found and (4) normal distribution should be present (Pallant, 2010). All of the assumptions are satisfied in this study.

The data was collected for two types of measures from the same population sample. A

bivariate Pearson's correlation was calculated in SPSS in order to explore the correlation between the criteria variables (Self-Perceived Communication Competence, Willingness to Communicate and Personal Report of Communication Apprehension). The tested hypotheses are the following:

OLS Multiple Regression. An ordinary least squares multiple regression analysis using the enter method was run in SPSS Statistics in order to add to the answer to the third research question – '*How well do Self-Perceived Communication Competence and Willingness to Communicate predict Communication Apprehension within and across languages?*' The OLS Regression explored the contribution of two independent variables on a single dependent variable. Three models were formed in order to explore the predictions of communication traits within and across languages.

Model 1 tested whether Self-Perceived Communication Competence together with Willingness to Communicate can predict Communication Apprehension in native language.

Model 2 tested whether Self-Perceived Communication Competence together with Willingness to Communicate can predict Communication Apprehension in nonnative language.

Model 3 tested whether Self-Perceived Communication Competence together with Willingness to Communicate in native language can predict Communication Apprehension in nonnative language.

The Multiple Regression "makes a number of assumptions about the data, and it is not all that forgiving if they are violated" (Pallant, 2010, p. 150). The first assumption is that the dependent variable should be measured on an interval or ratio level, while the independent variable should either be continuous or categorical. These assumptions have already been met. Furthermore, the data should be normally distributed and it should have a linear relationship. When the Linear Regression analysis was run using SPSS, through visual inspection, Histograms and Normal P-P Plots were chosen in order to provide evidence for those assumptions. The generated graphs showed normal distribution and linear relationships between all of the variables. Furthermore, the data should hold the assumptions that it possesses homoscedasticity and no multicollinearity. Checking for multicollinearity was the process which needed the most precision. First, the table of correlations was inspected and did not show low correlations between the independent variables. Correlations higher than .7 point to multicollinearity (Pallant, 2010). For the first and last models (between native language and across native and nonnative language), all the

values were well under .7. However, for the second model between nonnative language the correlation between the two independent variables (nonnative language self-perceived communication competence and nonnative language willingness to communicate) was *r* = .73. Even though this value is slightly above .7, it still needs to be taken into consideration when interpreting the results of the analysis. Second, the Tolerance and VIF (Variance inflation factor) values needed to be checked in the Collinearity Diagnostics table. "VIF values above 10 would be a concern here, indicating multicollinearity" (Pallant, 2010, p. 158). The VIF values of the three models were well below 10. Model 1 native SPCC *VIF* = 1.37 and native WTC *VIF* = 1.37. Model 2 nonnative SPCC *VIF* = 2.13 and nonnative WTC *VIF* = 2.13. Model 3 native SPCC *VIF* = 1.31 and native WTC *VIF* = 1.31 . Model 1 native SPCC *Tolerance* = .73 and native WTC *Tolerance* = .73. Model 2 nonnative SPCC *Tolerance* = .47 and nonnative WTC *Tolerance* = .47. Model 3 native SPCC *Tolerance* = .77 and native WTC *Tolerance* = .77. And finally, Durbin-Watson test was computed in order to find out the independence of errors. The test should have values around 2 in order to meet the assumption of independent errors (Nerlove & Wallis, 1966). The values of the test were as follows: Model 1 = 2.17, Model 2 = 2.08 and Model 3 = 1.97.

Results

Since the previous chapter explained that the assumptions of each analysis are met, this chapter delves straight into interpreting the results of those analyses. The preliminary analysis showed that the data are normally distributed and no significant outliers were observed. It was determined that the assumptions of all the tests were met before proceeding. The chapter begins with the model descriptives section where the means, standard deviations and Cronbach's Alpha coefficients are reported. The section provides a table including descriptives for the three instruments and their sub-scores. Following are the results of the Paired Sample T-Test which tested whether the differences in the mean scores which were found were statistically significant. The results of the bivariate Pearson's Correlation and OLS Multiple Regression Analysis were then illustrated in consideration of the theory and also in terms of adding to the already existing theory.

Model Descriptives

The preliminary analysis of the averages and standard deviations showed that the data is normally distributed. Cronbach's Alpha was calculated in order to find whether enough data has been collected and whether the instruments are consistent. Table 4.1 provides the Cronbach's Alpha coefficients, averages and standard deviations for total Self-Perceived Communication Competence, Willingness to Communicate and Communication Apprehension and their sub-scores for receivers and contexts in native and nonnative language.

All three instruments showed high reliability estimates. The Alpha coefficients, means, and standard deviations scores were similar to the ones found in previous studies (Richmond et al., 1989). For total SPCC native and nonnative Cronbach's Alpha was 0.96 (see Table 4.1). For WTC total reliability was Alpha = 0.93 also for native and nonnative. This result is similar to the one found in the initial testing of WTC's reliability (Alpha = 0.92) (McCroskey & Baer, 1985). For CA the total native language Alpha score was 0.92 and total nonnative language score was 0.93. The sub-scores of the three instruments showed high Alpha reliability estimates as well ranging from 0.73 to 0.94. There was one exception which was the score for the dyad item on the WTC instrument, where the reliability was low (Alpha = 0.57 for native and 0.54 for nonnative language). In other words, all of the total scores and sub-scores excluding the dyad for willingness to communicate had a high internal consistency coefficient. It could be stated then, that the dyad sub-score for WTC did not measure what it was meant to – how participants felt about their wish to communicate with another person one-on-one.

The majority of the mean scores for total SPCC, WTC and CA and their sub-scores in native

and nonnative language were above *M* = 7.50. The majority of the standard deviations of the SPCC and WTC instruments were below *SD* = 2. This indicated low spread and good accuracy of the data. The mean scores of the sub-scores were following the same patterns as the ones for the total scores. Native language sub-scores were higher than nonnative. Also SPCC had the highest sub-score means and CA the lowest. When it came to SPCC receiver sub-scores, international students felt best about talking with friends (*M* = 9.47, *SD* = 1.08 and *M* = 8.99, *SD* = 1.44 for native and nonnative respectively and the same applies to the following results), followed by acquaintances (*M* = 9.05, *SD* = 1.26 and *M* = 8.25, *SD* = 1.73) and then strangers (*M* = 8.50, *SD* = 1.84 and *M* = 7.81, *SD* = 1.93). In terms of contexts, dyad (*M* = 9.31, *SD* = 1.05 and *M* = 8.71, *SD* = 1.35) was the most preferred one, followed by small group (*M* = 9.17, *SD* = 1.12 and *M* = 8.50, *SD* = 1.50) and then by a meeting (*M* = 8.80, *SD* = 1.43 and *M* = 8.04, *SD* = 1.70) even though public would have been the expected lowest mean score. For their willingness to communicate students chose friends (*M* = 8.97, *SD* = 1.49 and *M* = 8.62, *SD* = 1.57) over acquaintances (*M* = 7.85, *SD* = 1.92 and *M* = 7.60, *SD* = 2.01) and there was no statistical difference for strangers' mean scores. In terms of WTC's context sub-scores small group (*M* = 8.19, *SD* = 1.73 and *M* = 7.90, *SD* = 1.88) won over meeting (*M* = 7.56, *SD* = 1.94 and *M* = 7.41, *SD* = 1.88) and meeting over public (*M* = 7.48 *SD* = 2.17 and *M* = 7.20, *SD* = 2.26). There was no statistical difference for willingness to talk in a dyad. On the other hand, the CA instrument had only sub-scores for receivers and the only statistically significant ones were for dyad (*M* = 7.23, *SD* = 2.19 and *M* = 6.73, *SD* = 2.43) and public (*M* = 5.73, *SD* = 2.70 and *M* = 5.43, *SD* = 2.65). Essentially, on average, international students are more confident about their self-perceived communication skills and their willingness to communicate compared to their fear of communication in native and nonnative languages.

The differences, although most of them significant, were not too big. For SPCC the biggest differences were between the scores of talking with an acquaintance (*M* = 9.05 for native and *M* = 9.25 for nonnative language) and stranger (*M* = 8.50 for native and *M* = 7.81 for nonnative language). So the biggest difference between contexts and receivers in native and nonnative language when it comes to international students' SPCC is seen when they talk one-on-one and with strangers. The lowest difference was 0.48 for talking with a friend (*M* = 9.47 for native and *M* = 8.99 for nonnative language). For WTC the small group communication had the highest mean difference (*M* = 8.19 for native and *M* = 7.90 for nonnative language) and stranger had the lowest (*M* = 6.44 for native and *M* = 6.45 for nonnative language). Willingness to talk in both languages differs mostly when it comes to communicating in a small group. Fear of communication in a dyad had the largest mean difference altogether (M = 7.23 for native and M = 6.73 for nonnative language) and small group the lowest (M = 6.25 for native and M = 6.06 for nonnative language.

Table 4.1. Cronbach's Alpha coefficients, Averages and Standard Deviations for Total Self-Perceived Communication Competence (SPCC), Willingness to Communicate (WTC) and Communication Apprehension (CA) and Their Sub-Scores for Receivers and Contexts in Native and Nonnative Language.

	Cronbach's Alpha		*M*		*SD*	
	Native Language	Nonnative Language	Native Language	Nonnative Language	Native Language	Nonnative Language
Total SPCC	0.96	0.96	8.94	8.35	1.52	1.48
Receiver						
Friend	0.83	0.87	9.47	8.99	1.08	1.44
Acquaintance	0.92	0.94	9.05	8.25	1.26	1.73
Stranger	0.94	0.93	8.50	7.81	1.84	1.93
Context						
Dyad	0.73	0.80	9.31	8.71	1.05	1.35
Small group	0.83	0.86	9.17	8.50	1.12	1.50
Meeting	0.85	0.85	8.80	8.04	1.43	1.70
Public	0.90	0.90	8.85	8.14	1.55	1.80
Total WTC	0.93	0.93	7.74	7.55	1.75	1.74
Receiver						
Friend	0.87	0.86	8.97	8.62	1.49	1.57
Acquaintance	0.88	0.90	7.85	7.60	1.92	2.01
Stranger	0.87	0.90	6.44	6.45	2.37	2.45
Context						
Dyad	0.57	0.54	7.82	7.72	1.66	1.64
Small group	0.77	0.81	8.19	7.90	1.73	1.88
Meeting	0.78	0.76	7.56	7.41	1.94	1.88
Public	0.84	0.87	7.48	7.20	2.17	2.26
Total CA	0.92	0.93	6.54	6.04	2.22	2.29
Context						
Dyad	0.74	0.77	7.23	6.73	2.19	2.43
Small group	0.77	0.79	6.25	6.06	2.37	2.53
Meeting	0.75	0.79	6.20	5.98	2.46	2.68
Public	0.78	0.79	5.73	5.43	2.70	2.65

Paired Sample T-Test

Table 4.2 illustrates the paired sample t-test results for SPCC, WTC, CA and their sub-scores in native and nonnative languages. The test showed that there were statistically significant differences or variations between the mean scores for the three communication traits in native and nonnative language. Communication competence was higher in native language (M = 108.78, SD = 14.65) compared to nonnative (M = 100.19, SD = 17.76), t (119) = 5.09, p = 0.000, 95% CI [5.24, 11.92]. Willingness to communicate was also higher in native language (M = 94.50, SD = 20.28) compared to nonnative (M = 90.43, SD = 20.83), t (118) = 2.08, p = 0.040, 95% CI [0.20, 7.95]. Interestingly, communication apprehension was also higher in native language (M = 160.30, SD = 53.72) compared to nonnative (M = 145.17, SD = 55.02), t (119) = 5.21, p = 0.000, 95% CI [9.38, 20.89]. To put it differently, on average, students perceive themselves as more competent

communicators in their mother tongue, they were also more willing to communicate in it but they were also more anxious in their native language.

A few of the differences in the mean scores of the sub-scores of the instruments were not statistically significant. Those were the WTC's stranger (*M* = 26.27, *SD* = 9.35 for native and *M* = 25.70, *SD* = 9.75 for nonnative language), *t* (118) = .69, *p* > .05, 95% *CI* [-1.07, 2.22] and dyad (*M* = 23.76, *SD* = 4.95) for native and *M* = 23.09, *SD* = 4.90 for nonnative, *t* (118) = 1.31, *p* > .05, 95% *CI* [-.29, 1.45] sub-scores, and CA's small group (*M* = 38.03, *SD* = 14.70 for native and *M* = 36.36, *SD* = 15.19 for nonnative language), *t* (119) = 1.72, *p* > .05, 95% *CI* [-.26, 3.61] and meeting (*M* =37.42, *SD* = 14,96 for native and *M* = 35.85, *SD* = 16.06 for nonnative language), *t* (119) = 1.70, *p* > .05, 95% *CI* [-.26, 1.70] sub-scores.

Table 4.2. Paired Sample T-Test Results for SPCC, WTC, CA and Their Sub-Scores in Native and Nonnative Languages.

	Native Langauge		Nonnative Language			95% CI			
	M	*SD*	*M*	*SD*	*N*	Lower	Upper	*t*	*df*
SPCC**	108.78	14.65	100.19	17.76	120	5.24	11.92	5.09	119
Receiver									
Friend**	38.03	4.10	35.96	4.58	120	1.07	3.08	4.08	119
Acquaintance**	36.57	4.23	32.95	6.92	119	2.52	4.71	6.54	118
Stranger**	34.49	6.38	31.23	7.71	120	2.00	4.51	5.16	119
Context									
Dyad**	28.04	2.83	26.13	4.04	120	1.20	2.62	5.33	119
Small group**	27.71	2.92	25.47	4.47	119	1.54	2.95	6.31	118
Meeting**	26.64	3.69	24.08	5.08	119	1.70	3.41	5.90	118
Public**	27.06	3.60	31.20	7.74	119	-5.34	-2.96	-6.77	118
WTC**	94.50	20.28	90.43	20.83	119	0.20	7.95	2.08	118
Receiver									
Friend**	36.35	5.47	34.38	6.27	118	.68	3.25	3.03	117
Acquaintance*	32.19	7.30	30.30	8.04	119	.44	3.34	2.58	118
Stranger	26.27	9.35	25.70	9.75	119	-1.07	2.22	.69	118
Context									
Dyad	23.67	4.95	23.09	4.90	119	-.29	1.45	1.31	118
Small group*	25.03	4.77	23.58	5.61	118	.40	2.48	2.75	117
Meeting*	23.17	5.42	22.11	5.60	118	.06	2.06	2.09	117
Public*	23.04	6.17	21.52	6.77	119	.35	2.69	2.58	118
CA**	160.30	53.72	145.17	55.02	120	9.38	20.89	5.21	119
Context									
Dyad**	44.52	12.77	40.37	14.58	120	2.26	6.07	4.27	119
Small group	38.03	14.70	36.36	15.19	120	-.26	3.61	1.72	119
Meeting	37.42	14.96	35.85	16.06	120	-.26	3.39	1.70	119
Public*	34.83	16.57	32.59	15.92	120	.64	3.82	2.79	119

Significance levels: **p* < .05, ***p* < .001

Pearson's Correlation

Table 4.3 provides the Pearson's correlation results for SPCC, WTC and CA in native and nonnative language. Even though it seems that data are missing on first glance, this is due to the fact that the hypotheses asked only for the data at hand. Not all possible correlations between the instruments were calculated since the scope of the research did not ask for it.The Pearson bivariate correlation test showed a significant, moderate positive correlation between the native SPCC, WTC and CA. This finding is aligned with the theory by Richmond et al. (1989) who found that SPCC had a strong correlation to WTC and CA. As a result, HO_1 stating that there is no correlation between SPCC, WTC and CA in native language was rejected. In addition, it was found that Willingness to Communicate in a native tongue had stronger association to Self-Perceived Communication Competence ($r = 0.52$, $p < .05$) than to Communication Apprehension ($r = 0.36$, $p = 0.000$). The SPCC correlation score was lower than what have been found in previous studies ($r = 0.63$, $r = 0.74$, $r = 0.59$) (Richmond et al., 1989). In other words, willingness to communicate and self-perceived communication competence are more strongly related between themselves compared to their ties to fear of communicating.

Native Self-Perceived Communication Competence shares a strong positive correlation with native Willingness to Communicate ($r = 0.52$, $p < .01$). The indication is that the more participants perceive themselves as high in the competence trait, the more they also become willing to communicate in their native language. Native Self-Perceived Communication Competence shares a moderate positive correlation with native Communication Apprehension ($r = 0.36$, $p < .01$). The more students' perceptions of their communication competence rise, their communication apprehension also rises but it rises lower than their willingness. And native Communication Apprehension has a moderate positive correlation with native Willingness to Communicate ($r = .40$, $p < .01$). Essentially, the more students' are willing to communicate, their fear rises as well, even though a little.

The second alternative hypothesis stating that there is a significant correlation between SPCC, WTC and CA in nonnative language was also accepted. All three instruments were significantly correlated and their association was higher than the one observed in native language. Nonnative language WTC and nonnative SPCC share a strong positive correlation ($r = 0.73$, $p = 0.000$). The more students want to communicate in a foreign language, the more competent they perceive themselves to be in it. Nonnative CA and nonnative SPCC had a moderate positive correlation ($r = 0.54$, $p = 0.000$). The more students' fear, the more they perceive themselves as competent. Nonnative CA and WTC had a strong positive correlation ($r = 0.64$, $p = 0.000$). In other words, as fear rises, so does willingness maybe to counter the fear and overcome it.

The third hypotheses referred to either a significant correlation between SPCC and WTC in

native language and CA in nonnative language or no difference. These findings were split in two. That is to say, native SPCC and nonnative CA had a significant, low positive association (r = 0.21, p = 0.019) while native language WTC and nonnative language CA's relationship was not significant (p = 0.056). Essentially, international students' willingness to communicate in their native language is not connected to their fear of communication in their nonnative language. And their nonnative fear of communication had a very weak correlation to their self-perceived communication competence in native language. In other words, fear in communication in a foreign language, leads to a small rise of self-perceived communication competence in the native one. As one experiences communication apprehension in a foreign tongue, he or she maybe realizes they he or she is good in another tongue and therefore the SPCC rises.

Table 4.3. Correlation Matrix Between Self-Perceived Communication (SPCC), Willingness to Communicate (WTC) and Communication Apprehension (CA) in Native and Nonnative Language.

	1	2	3	4	5	6
1 Native SPCC (r)	-					
2 Nonnative SPCC (r)		-				
3 Native WTC (r)	.52*		-			
4 Nonnative WTC (r)		.73*		-		
5 Native CA (r)	.36*		.40*		-	
6 Nonnative CA (r)	.21**	.54*	.18	.64*		-

Significance levels: * $p < .01$, ** $p < .05$.

OLS Multiple Regression

Before proceeding with the OLS multiple regression analysis run in SPSS for this study the data was checked for an appropriate level of measurements of the variables, normal distribution, linear relationships, homoscedasticity and no multicollinearity. All of those assumptions were met with one slight exception. The correlation between the two independent variables in Model 2 (nonnative language self-perceived communication competence and nonnative language willingness to communicate) was slightly above .7 (r = .73) which indicated a possibility for multicollinearity. In addition, even though all VIF values were well below 10, with the highest one belonged to the second model and reaching 2.13. These results call for caution when interpreting the results of the second model.

Model 1

The first model of the regression analysis set out to discover whether native language Self-Perceived Communication Competence together with Willingness to Communicate can predict Communication Apprehension in native language. The results of the OLS Regression analysis

indicated that native WTC is a better predictor of native CA than native SPCC. In other words, the regression model of native communication apprehension as the dependent variable and native willingness to communicate and native self-perceived communication competence as the independent ones is significant, F (1,138) = 16.425, p <.001. The model shows a low prediction of native CA based on native WTC and SPCC of only 19.2% ($r2$ = .192). Willingness to communicate in native language has the strongest unique contribution to explaining native communication apprehension $b*$ = 0.30, t = 3.31, p < 0.001, 95% Cl [0.31, 1.21] while native SPCC remains constant. Native SPCC's prediction power is weaker, but also significant, $b*$ = 0.20, t = 2.26, p < 0.05, 95% Cl [0.09, 1.27]. They both have a moderate correlation with native CA.

To put more simply, when it comes to international student's fear of communicating in their native language, their willingness to communicate can predict their fear better compared to their self-perceived competence in that language. Although both native SPCC and native WTC are significant predictors of native CA, together they do not explain much of what causes native CA.

Model 2

Model 2 tested whether nonnative language Self-Perceived Communication Competence together with Willingness to Communicate can predict Communication Apprehension in nonnative language. The results showed that nonnative language willingness to communicate is a better predictor of nonnative language communication apprehension for two reasons. The first reason is that nonnative SPCC was not significant (p > .05). And the second is that, even it was, its value was way smaller than the nonnative WTC one which can be seen in Table 4.4. All things considered though, the regression model of nonnative communication apprehension as the dependent variable and nonnative willingness to communicate and nonnative self-perceived communication competence as the independent ones was significant, F (2,117) = 43.322, p <.001. The model shows a moderate prediction of nonnative CA based on nonnative WTC and SPCC of 42.5% ($r2$ = .425). Willingness to communicate in nonnative language has the strongest unique contribution to explaining nonnative communication apprehension $b*$ = 0.54, t = 5.22, p < 0.001, 95% Cl [0.87, 1.94].

In other others, the more competent a student believes she or he is when communicating in nonnative language does not predict the fear of communicating in that language. Some students might have very little knowledge of a language and realize it, therefore their perceived competence is low. However, willingness to communicate increases, the prediction of apprehension becomes more predictable. For every 1 point of WTC going up, CA increases by 1.41. One interpretation of those results is that as willingness goes up, fear goes up too, since international students' are aware of their low competence.

Model 3

The last model tested whether Self-Perceived Communication Competence (IV) together with Willingness to Communicate in native language (IV) can predict Communication Apprehension in nonnative language (DV). Model 3 was barely statistically significant, F (2,116) = 3.23, p = .043 and the independent variables were not significant predictors of the dependent one. The model showed an incredibly low prediction power of only 5.3% ($r2$ = .053). This discovery leaves the theory on predicting nonnative CA with native CA, WTC and SPCC with Jung and McCroskey's (2004) finding that native CA is the best predictor of nonnative CA so far.

Table 4.4. Results of OLS Regression Analysis Predicting Native and Nonnative Communication Apprehension Between and Across Languages

	Model 1 (Native SPCC and Native WTC to predict native CA)	**Model 2** (Nonnative SPCC and Nonnative WTC to predict Nonnative CA)	**Model 3** (Native SPCC and Native WTC to predict Nonnative CA)
Native SPCC	.203*		.169***
Native WTC	.297**		.094***
Nonnative SPCC		.150***	
Nonnative WTC		.535**	
$r2$	.192	.425	.053
N	141	120	119

Notes: Reported effects are standardized (Beta) coefficients.
Significance levels: * p < .05, ** p < .001, *** p > 0.5

Discussion and Conclusion

Discussion

The first and second research questions this study set out to answer were concerned with how preferences for receivers and contexts in willingness to communicate, self-perceived communication competence and communication apprehension vary in native and nonnative languages and what were the constructs' total variances. The mean scores of the sub-scores followed the same logic of the ones for the total scores. That is to say, SPCC was higher than WTC and WTC was higher than CA in general. Essentially, on average, international students are more confident about their self-perceived communication skills and their willingness to communicate compared to their fear of communication in native and nonnative languages. Given that high SPCC and WTC scores lead to better educational success (McCroskey & Richmond, 1987; Zarrinabadi, 2012), this finding adds a positive angle to communication traits in international educational environments. Furthermore, students with high levels of WTC have been proved to gain multiple advantages from it (McCroskey & Richmond, 1987).

Additionally, SPCC, WTC and CA were all higher in native language compared to nonnative. And the same can be said for their sub-scores. That is SPCC's, WTC's and CA's context and receiver scores are all higher in native language compared to nonnative. Also, SPCC's sub-scores are higher than WTC's and WTC's are higher than CA's. International students feel the same about their willingness to talk to strangers and in a dyad and their fear of talking in a small group or a meeting in native and nonnative language. The friend sub-scores were the highest ones in native and nonnative language. Differences have been found before but they have been strictly cultural. For example, in Thailand students' SPCC is highest when talking with acquaintances and the lowest for a friend which is the exact opposite for American students (Dilbeck et al., 2009). The results in this study are rather novel to the research connected to SPCC, WTC and CA in native and nonnative language, since the majority of the studies have concentrated on cultural differences and a few on finding out context and receiver differences (Croucher, 2013a; Dilbeck et al., 2009; Zarrinabadi, 2012).

The self-perceived communication competence of international students in native and nonnative language was highest when they were talking to friends and in a dyad. It could be advised then than international programs could create a more friendly approach to student – teacher relations and a concentration on more one–on–one meetings and group work might be beneficial. Small group was the next more preferred context so smaller tutorial groups might lead to higher SPCC. Friends were also preferred as receivers for international students' willingness to

communicate and students were also mostly willing to talk in a small group. Again, small tutorials when it comes to teaching international students' would be preferred if it can improve students' WTC, given that some studies show that low WTC leaves negative impressions on teachers (McCroskey & Richmond. 1987). Additionally, concentrating on context findings, or drawing conclusions on how to base learning around contexts when it comes to WTC makes more sense compared to base in cultural differences. This is due to the fact that recently the argument grew heavier on the point that WTC is more dependent on context, rather than culture (Barraclough et al., 1988) and also because in a highly international environment there is no one culture on which learning propositions can be based on.

As mentioned above, the CA average for native language was higher than the one for nonnative language. At first glance, this finding seems surprising; however students are more aware in their second language. In other words, people speak their native language instinctively, however a foreign language presents compound difficulties and therefore people are more aware when speaking it. Communicating in a second language has been shown to negatively impacts students' relationship with peers, classmates and instructors (Jung & McCroskey, 2004). The difficulties are likely a result of more thought involved when speaking in nonnative tongue and therefore people become more aware of potential errors in competence and their fear and are working towards overcoming it. For example, fear of speaking in public is an obvious condition where observation of nervousness and perceived incompetence reflect manifestation of such communication traits. However, communication apprehension has the lowest average out of all the results. Burroughs et al. (2003) found that CA scores were higher than WTC and WTC was lower than SPCC scores. The findings in this study show high SPCC and WTC and low CA, therefore part of the CA is not out of the ordinary based on the theory. When a student is presented with a situation they might fear and feel uncomfortable in, it is possible they realize it and try to fight it in order to feel more competent and succeed. This awareness of the fear might lead to overcoming it. In other words, students can fear a communication event, yet move on to achieve desired communication outcomes anyway.

Speaking a foreign language has a set purpose, especially in an educational environment. To put it simply, when people communicate in their native language, they do so usually automatically. Studying a foreign language, however, is very purposeful – there is a reason why another language was needed and which one at that, too. It does not matter whether the reason is work, education, love, etc. Given that fear of communication might lead international students' success to suffer, it makes sense that trying to overcome this fear is essential for academic and personal life achievements (Wiemann & Backlund, 1980; Zhou et al., 2008). On the one hand, researchers also indicated that anxiety leaves students less willing to communicate (Barraclough et al., 1988; Dillon & Swann, 1997; Jung & McCroskey, 2004). On the other hand, the majority of the average scores of

WTC and SPCC are well above *M* = 7.5 and their *SD*s are around 1, therefore they are higher than CA. So, even though CA has an unexpected positive correlation with WTC and CA and it is higher in native language, some suggestions of why this is are at hand. Much research has been done in this direction, however none of it in such a varied mixture of cultures where language was truly studies and culture was not a major concern.

International students' fear is higher in their native language rather than in their foreign tongue in this study. Furthermore, this was the highest observed decrease of 15.13 points between native and nonnative language CA mean scores. This means that international students had the highest variance within native and nonnative language when it came to their fear of communication. These results were intriguing since it would be logical to assume that students would be more scared of communicating in their nonnative tongue rather than in their native one and also because previous research indicates that CA has been lower in native language (Baker & MacIntyre, 2003). That study, however, was done while researching immersion and nonimmersion students, or students who were neither following an international program, nor living abroad. Some researchers have reported no difference in CA levels (Burroughs et al., 2003). And this study, however, was done with one culture forced to communicate in a second language, therefore not representative of a mixture of cultures and their feelings about communicating in native and nonnative languages.

The large confidence interval observed in this study might suggest greater uncertainty about the estimate of the true mean of the Communication Apprehension instrument. That is to say that the results of CA mean differences are not as certain as the WTC and SPCC ones. In terms of theory though it was interesting to find a significant difference in mean scores for CA, given that another study similar to this one found no differences in CA native and nonnative language scores (Burroughs & Marie, 1990). Another explanation for this, besides the awareness of speaking a nonnative language, could be the mentioned earlier high percentage of Dutch students, who are very bilingual. However, their means did not appear as outliars in the inspection of the graphs of the data and no other outliars were detected.

These results shed some light on the preferences and variations for communication traits in an international educational environment. The reason why more understanding in this field is needed is part of the general understanding that the world is becoming a global village. The amount of international students following programs in foreign countries is quickly rising (OECD, 2013). The problems such as acculturation and culture shock that international students face might reflect poorly on their achievements in that foreign country. Understanding the needs of international students better might lead to helping them achieve their personal and academic goals easier if not at all. Plenty of scholars agree on this point, however, the reality is that majority of research is still concentrated on U.S. research or one reflecting specific cultures (Barraclough et al., 1988;

Burroughs et al., 2003; Chesebro et al., 1992; Croucher, 2013a; Dilbeck et al., 2009; Hsu, 2004, 2007; Lu & Hsu, 2008; Mansson & Myers, 2009; McCroskey, 1982; McCroskey & Baer, 1985; Richmond et al., 1989; Rosenfeld et al., 1995; Sallinen-Kuparinen, et al., 1991; Zarrinabadi, 2012; Zimmermann, 1995).

In the same spirit of expanding research and helping to generalize it the third research question proposed in this study asked *How well do Self-Perceived Communication Competence and Willingness to Communicate predict Communication Apprehension within and across languages?* In order to attempt at providing an answer to that question bivariate Pearson's Correlation were run in SPSS. The first alternative hypothesis testing for a significant positive and/or negative correlation between SPCC, WTC and CA in native language was accepted. Native SPCC had a strong positive correlation with native WTC and a moderate one with native CA. Native WTC had a moderate positive correlation with native CA. $H1_2$ testing for a significant (positive/negative) correlation between SPCC, WTC and CA in nonnative language was also accepted. Nonnative SPCC had a very strong positive correlation with nonnative WTC and strong positive one with nonnative CA. Nonnative WTC had a strong positive correlation with nonnative CA. $H1_3$ checking for a significant (positive/negative) correlation between SPCC and WTC in native language and CA in nonnative language was partially accepted and rejected. That is to say, native SPCC had a weak positive correlation with nonnative CA, however native WTC's and nonnative CA's correlation was not significant. These findings corroborate the theory by Baker and MacIntyre (2003), Burroughs et al. (2003), Liu and Jackson (2008), McCroskey et al. (1985), Richmond et al. (1989) and Richmond et al. (2008) that SPCC, WTC and CA are correlated. Unlike what some theory suggests (Jung & McCroskey, 2004; McCroskey & Baer, 1985), CA in this study was positively correlated to both SPSS and WTC in both languages. The possible explanation provided earlier is applicable in this analysis as well. If correlations were even higher in nonnative language, then it could be the case that because international students' are aware of their fear, it rises. And as it rises, they work in order to overcome it and so their SPCC and WTC rise as well.

Essentially, the more students are willing to communicate, their fear rises a little. These discoveries oppose the research by Jung and McCroskey (2004) that SPCC or WTC in native language would have a negative relationship with native CA. However, perceived competence meant higher willingness to communicate as Barraclough et al. (1988) suggested. Furthermore, they also found very strong association between PRCA (previous instrument for CA) and SPCC. Even though correlation does not imply causation, it could be suggested that when students' fear rises, in order to overcome it, their willingness rises too. Sallinen-Kuparinen et al. (1991), for example, who compared Finnish, Swedish, American, Australian and Micronesian people, discovered that their communication apprehension was lower than their willingness to communicate in their native

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languages. Furthermore, Sallinen-Kuparinen et al.'s (1991) research indicates biggest variations between the WTC scores, which means they could be very trait-like for cultures. So, in a mixture of cultures the results of WTC are different, and in this case, higher than CA.

MacIntyre and Charos (1996) concluded in their research that successful communication in a second language depended on SPCC and WTC among other predictors such as frequency of talking in the second language, etc. What researchers so far have not been concerned with is a concentration on nonnative language communication per se. For some of the participants in this study English is even a third language. This could be another possible explanation for some of the results of the CA instrument. The more languages one speaks, the more they might realize that overcoming fear is crucial for a successful communication (MacIntyre& Charos, 1996). Furthermore, the highest percentage nationality from the participants were Dutch (30%). Dutch people learn English from an early age and sometimes even talk English to themselves. So few people speak Dutch that movies rarely get translated and in order to form business relationships with the rest of the world the Dutch need to keep up with their English skills. This leads to a low communication apprehension in their second language, since they consider it almost a first language.

The second step of finding out prediction powers within and across languages was conducting an OLS Multiple Regression analysis. A regression analysis concerned with communication traits' predictability was executed by Richmond et al. (1989) in order to predict SPCC based on CA among other factors including self-esteem, introversion, etc. They found that WTC and CA are the best predictors of SPCC from the chosen communication traits with CA being a better predictor than WTC. Jung and McCroskey (2004) discovered that native CA is a better predictor of nonnative CA than native SPCC. McCroskey and Baer (1985) tested nonnative SPCC and native CA in order to predict nonnative CA and also found that native CA is better at predicting nonnative CA.

The gap so far is in figuring out whether native SPCC and native WTC can predict nonnative CA. Also whether nonnative self-perceived communication competence and nonnative willingness to communicate can predict nonnative communication apprehension. In general, a combination of SPCC and WTC as predictors is missing, since most scholars, out of the few, have been concerned with native CA. In this study the first model which was tested was whether self-perceived communication competence together with willingness to communicate can predict communication apprehension in native language. First of all, the model was significant, but it only explained 19.2 percent of the variance. Which means that a lot more is explained by unknown factors. In addition, native WTC was a better predictor of native CA compared to native SPCC. This indicated that international students' willingness to communicate in their native language was a better predictor of their fear of talking in that language rather than their self-perceived communication competence in it.

The second model was formed in order to figure out whether self-perceived communication competence together with willingness to communicate can predict communication apprehension in nonnative language. This model statistically significant as well, however, it was twice as predictive as the first one. 42.5 percent of the prediction of nonnative CA was explained by nonnative SPCC and nonnative WTC. Once again WTC was a better predictor than SPCC, however for two different reasons. Nonnative SPCC's power to predict nonnative CA was not significant. And even if it was, it's *b** value was a lot smaller than WTC's. On the other hand, results showed that nonnative WTC is a good predictor of nonnative CA (*b** = 0.54). In both models in the literature so far, whenever nonnative SPCC was predicting nonnative CA, native CA turned out to be a better predictor (Jung & McCroskey, 2004; McCroskey & Baer, 1985). That is to say, both Jung and McCroskey (2004) and McCroskey and Baer (1985) when comparing nonnative SPCC and native CA as predictors of nonnative communication apprehension, found that fear in communicating in a first language was better at predicting the fear in a second language, compared to the self-perceived communication competence in that second language. Richmond et al. (1989) compared native CA with native WTC, therefore a lack of knowledge on nonnative WTC's prediction power can be observed and also of its combination and comparison to nonnative SPCC.

The results of the second model added some knowledge in this direction, showing that when it comes to nonnative CA, only international students' willingness to communicate in that second language makes a difference. These results are not far-fetched from reality too. If someone perceived himself or herself as a competent communicator in English (as his or hers nonnative language) but was apprehensive towards communicating in English, then nothing would drive him or her to overcome that fear. However, if that person was willing to talk, he or she would end up practicing English more and that could lead to overcoming the fear.

The last, third model of the OLS Multiple regression analysis tested whether self-perceived communication competence together with willingness to communicate in native language can predict communication apprehension in nonnative language. The model was barely significant to begin with, with a significance value of just *p* = .043. Furthermore, native language SPCC and native language WTC were not statistically significant predictors of nonnative CA. Additionally, even if they were both of their predictive powers would have been below *b** = .169. This is probably why together they ended up explaining only 5.3 percent of the variance.

These last findings led to the conclusion that from the three communication traits in native language, so far research has shown that only native communication apprehension is good at predicting nonnative CA (Jung & McCroskey, 2004; McCroskey & Baer, 1985). This also provides evidence of why communication apprehension is seen as a communication trait.

Limitations and Suggestions for Future Research

These results automatically lead to another conclusion – which is that future research could concentrate on finding out what else predicts nonnative CA better or even best when it comes to language differences and not cultural ones. While exploring different cultures is beneficial for their own learning of a nonnative language, for a multicultural educational environment studying language differences is more helpful. Furthermore, most of the research done so far on first and second language differences has been done in terms of a course of the second language. Essentially, students studying a second language in their native language country have been mostly analyzed. Future research concentrating on nonnative language should try and replicate the participants of this one, in terms of having a vastly international participation in the research.

Furthermore, consequent research could measure which instrument better predicts nonnative CA out of native and nonnative self-perceived communication competence, willingness to communicate and communication apprehension. Their cumulative prediction can be measured so as to see how much of nonnative CA is explained by them and what room is left for other factors.

In addition, some qualitative research could help to understand what predicts nonnative communication apprehension better. While the three instruments used in this study have been replicated numerous times, they are still superficial in that they are quantitative measurements which do not go deeper into understanding the issue at hand. Using mixed methods or only interviews could provide some useful feedback to future research in order to analyze the problem of communication apprehension better. Additionally, interviews could add to the idea of self-perception results since a deeper understand of what that means could also be added to the existing body of research. This should probably be done instrument by instrument at first, given the sheer volume of data that would be generated. After all, this is how research on the three instruments has been done so far. Construct by construct, they were tested until it can be possible for them to be easily replicated in studies like this one, for example.

Furthermore by using interviews a limitation of this study as well as others like it might be avoided. One problem is the fact that correlations do not mean causality and even though the regression models aimed at reducing that limitation, it is still a prominent one. Especially given that the communication apprehension correlation results indicated a positive correlation with both self-perceived communication competence and willingness to communicate. An explanation for this occurring is needed and it is possible that an in-depth interview research could provide some answers to this conundrum.

Another limitation is the fact that some of the findings in this study are novel to the theory of self-perceived communication competence, willingness to communicate and communication apprehension. The third regression model and the fact that the study is done in a truly international

educational environment suggest that those particular results could not be compared to previous ones. Therefore a replication of the study in other highly multinational educational environments is needed in order to better understand the findings and their meaning.

Conclusion

This paper expanded the research in communication traits to a more international environment. Students from 30 countries took part in the study, resulting in data truly concerned with exploring languages, rather than culture. Furthermore, the study added valuable findings and filled some of the gaps which existed concerning the prediction of nonnative communication apprehension. First of all, it was discovered that international students were more willing and felt more competent when communicating with friends in dyads or small groups. This led to the idea that international programs should probably create smaller group work and communication in order to benefit foreign students the most. Second of all, it was seen that SPCC, WTC and CA had a statistically significant variation between native and nonnative language. International students' self-perceived communication competence, willingness to communicate and communication apprehension were higher in their native language. One explanation for the later was that since students' were aware of their nonnative language SPCC and WTC being lower than the native language ones, they work harder in order to overcome their fear. Another explanation was the fact that 30% of the participants were Dutch, who often perceive their English skills are close to perfect since they grow up surrounded by it. Finally, this research found that willingness to communicate in the native language predicts communication anxiety in the same language the best. Also, the research suggests that anxiety to communicate in the native language predicts anxiety in the nonnative one the best since nothing else proved significant enough.

Research similar to this one is needed in order to provide knowledge of the communication traits which are concerned with international students' adaption to their new countries of residence. The numbers of international students are rising rapidly and some of them will become permanent residents of those countries. For their academic and personal success and even for the countries' success providing help to their acculturation is vital. What is more, international universities employ international teachers and therefore understanding of the needs of the students could lead to better teaching practices. Research in this direction might seem abundant to some scholars but the truth is that there is still a lack of complete understanding of the problems international students face.

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Appendix A

You are invited to participate in research about communicating in native and nonnative languages

Please do not fill out the survey if you study in your native tongue as it does not apply to you.

Your participation in this study will take approximately 10 minutes. You may discontinue your participation at any time.

The information must remain anonymous, therefore do not identify yourself in any way. Your individual privacy will be maintained in all published and written data resulting from the study.

For questions about the study, please contact:

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Erasmus University Rotterdam

Please identify your:

Gender:	
Age:	
Nationality:	
Native language:	

Please respond to the following questions according to your

NATIVE and **NONNATIVE LANGUAGES.**

For the situations presented below, please indicate **how competent YOU BELIEVE you are**

when it comes to communicating in each of those situations from 0 to 100.

Presume that 0 is completely incompetent and 100 is competent.

Situation	Native language	Nonnative language
Present a talk to a group of strangers.		
Talk with an acquaintance.		
Talk in a large meeting of friends.		
Talk in a small group of strangers.		

Talk with a friend.		
Talk in a large meeting of acquaintances.		
Talk with a stranger.		
Present a talk to a group of friends.		
Talk in a small group of acquaintances.		
Talk in a large meeting of strangers.		
Talk in a small group of friends.		
Present a talk to a group of acquaintances.		

Twelve situations where a person might **CHOOSE TO COMMUNICATE OR NOT TO COMMUNICATE** are presented below. Presume you have completely free choice. Indicate the percentage of times you would choose to communicate in each type of situation.

<u>Presume that 0 is never and 100 is always.</u>

Situation	Native language	Nonnative language
Present a talk to a group of strangers.		
Talk with an acquaintance while standing in line.		
Talk in a large meeting of friends.		
Talk in a small group of strangers.		
Talk with a friend while standing in line.		
Talk in a large meeting of acquaintances.		
Talk with a stranger while standing in line.		
Present a talk to a group of friends.		
Talk in a small group of acquaintances.		
Talk in a large meeting of strangers.		
Talk in a small group of friends.		
Present a talk to a group of acquaintances.		

Below are a few statements concerning **FEELINGS ABOUT COMMUNICATING WITH OTHERS.**

Please indicate the percentage to which you (dis)agree with each statement.

<u>Presume 0 is strongly disagree and 100 is strongly agree.</u>

Statement	Native Language	Nonnative language
I dislike participating in group discussions.		
Generally, I am comfortable while participating in group discussions.		
I am tense and nervous while participating in group discussions.		
I like to get involved in group discussions.		
Engaging in a group discussion with new people makes me tense and nervous.		
I am calm and relaxed while participating in group discussions.		
Generally, I am nervous when I have to participate in a meeting.		
Usually, I am comfortable when I have to participate in a meeting.		
I am very calm and relaxed when I am called upon to express an opinion at a meeting.		
I am afraid to express myself at meetings.		
Communicating at meetings usually makes me uncomfortable.		
I am very relaxed when answering questions at a meeting.		
While participating in a conversation with a new acquaintance, I feel very nervous.		
I have no fear of speaking up in conversations.		
Ordinarily I am very tense and nervous in conversations.		
Ordinarily I am very calm and relaxed in conversations.		
While conversing with a new acquaintance, I feel very relaxed.		
I'm afraid to speak up in conversations.		
I have no fear of giving a speech.		
Certain parts of my body feel very tense and rigid while giving a speech.		
I feel relaxed while giving a speech.		
My thoughts become confused and jumbled when I am giving a speech.		
I face the prospect of giving a speech with confidence.		
While giving a speech, I get so nervous I forget facts I really know.		

Thank you for participating in my survey!