

Korean Learners' Long-Term Individual Networks of Practice

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Abstract

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This dissertation examines investment in language learning, especially investment over the entirety of a learner's target language-related journey. It investigates investment, in terms of positive and negative relationships and experiences, both at one point in time and over time, as well as how investment may be linked to a measure of acquisition of the target language. Two groups of Korean learners, Korean as a foreign language learners and Korean as a heritage language learners, were the target populations.

These research questions were approached from both quantitative and qualitative angles. Two quantitative studies measured both groups of Korean learners' production and comprehension of subject and object Korean externally-headed relative clauses. The initial study found that both groups performed similarly on both tasks, and the follow-up study used participants' test scores to correlate linguistic performance with a measure of investment.

Two qualitative studies focused on investigating both groups of Korean learners' investment in learning the target language via interviews and extended diagrams of the participants' individual networks of practice. The extensions included measures of how much time was spent with each node by the focal participant, how much of the relationship with each node was in Korean, as well as what material resources were used. The results showed the breadth of types of relationships, material resources, group memberships, activities, and other Korean-related exposures both groups experienced. Participants also shared their perspectives on which parts of their networks helped and hurt their language learning progress and their sustained motivation to learn. The initial study focused on networks at one point in time, and a follow-up study asked participants to share their long-term individual networks of practice, which covered the duration of their Korean language learning journeys.

Finally, data from the follow-up Korean relative clause test and the follow-up long-term individual network of practice study were combined to investigate a possible connection between language acquisition and long-term investment. Participants' descriptions of their long-term individual networks of practice were assigned numerical scores based on the number of positive and negative reported experiences. The results of a linear regression showed a positive correlation between more positive experiences and a higher test score, indicating that emotional valency in long-term language learning investment may be related to target language acquisition.

Dedication

For my family, past, present, and future

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Mental health for graduate students is often given lip service, but I believe its importance is vastly underestimated and insufficiently addressed. One of the most difficult actions to take is to help yourself when your own brain tells you it's unnecessary. I applaud everyone who has been able to do so and I implore everyone else, whether you think you need it or not, to seek or receive help. I wouldn't be in my right mental or physical state without Jennifer Edwards.

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Chapter 1. Introduction

In this introductory chapter I attempt to bring together and briefly describe the various aspects of the current study as well as lay out the content of the following chapters. First, I discuss the motivation for the current study: the reasons for choosing to investigate Korean as a target foreign language and heritage language, Korean learners' language learning investment, Korean relative clauses as a measure of syntactic proficiency, as well as individual networks of practice (INoPs). Second, I give a preview of the essential points of the rest of the chapters, including the three central studies in Chapters 3 through 5.

1.1 Motivation for the current study

This study brings together many components of the language learning experience: foreign and heritage language learning contexts, a less commonly taught language (Korean), identity and investment, relative clauses, and individual networks of practice (INoPs). In this section, I lay out the motivations behind choosing each of these components and summarize the pertinent facts relevant to the current study.

1.1.1 Korean as a heritage language learners (KHLLs) and Korean as a foreign language learners (KFLLs)

There are two groups of language learners, with distinct profiles, that take focus in the current study. Korean as a heritage language learners (KHLLs) are defined as having been exposed to Korean in the home environment from a young age, and Korean as a foreign language

learners (KFLLs) are defined as having first been exposed to Korean as adults, having already fully acquired their first language. It is commonly assumed that KHLLs have an advantage over KFLLs when learning the target language, especially in some aspects (e.g. phonology) (Montrul, 2010). KHLLs also have, by definition, family or heritage connections to the target language that KFLLs do not. Potential differences and similarities between KHLLs and KFLLs in their investment in and motivation to study the target language are still not well understood, however.

The current study looks at the connections that KHLLs and KFLLs make throughout their Korean learning journeys in order to investigate the two groups' investment and identities as language learners and aims to further our knowledge about these two types of learners. Additional information of interest will be how these learners perform on a measure of syntax acquisition (specifically, externally-headed relative clauses), which will add breadth to the investigation and contribute to our knowledge of KHLLs and KFLLs as language learners.

1.1.2 Korean

The target language of the current study is Korean (in the foreign language as well as heritage language context). In the United States, Korean is a growing foreign language in terms of student enrollment in Korean classes and number of Korean classes offered across the country (Jee, 2015). Between 2009 and 2013, Korean language enrollment rose 45% in university classes in the U.S., even though language studies overall declined 6.7% in the same period. Currently, there are more than 12,230 students in Korean classes and over 154 colleges now offer Korean classes (up 70% from a decade ago) (Gordon, 2015). This dramatic increase in Korean class enrollment has been attributed to the Korean Wave (in Korean: 한류, *hallyu*). This is the term used to describe the increase in popularity of South Korean pop culture (TV shows, dramas,

movies, music, etc.) in east and south Asia and around the world in recent years. One of the biggest cultural exports in the Korean wave has been K-pop, “a term commonly used by foreign audiences to describe trendy South Korean pop music produced and performed by Korean musicians” (Ju and Lee, 2015: 335).

Korean as a heritage language (KHL) is spoken by thousands of people in the United States and as such has one of the larger heritage speaker populations. By one estimate, “there are over 1,000 community-based Korean language schools in the U.S., and over 60,000 students are enrolled in these schools” (Park, 2008: 108). This makes research on KHL important and applicable to a large population. Despite the generous number of Korean learners, Korean remains a less commonly taught language and does not have much literature behind it as compared to other languages.

In addition to the large numbers of Korean learners, another reason to investigate KFL and KHL is Korean’s fundamental syntactic differences from English, especially with relative clauses (the syntactic structure under study here). These differences, namely case particle marking and phrase headedness, allow syntactic acquisition of Korean relative clauses to be clearly analyzed. That is, we will be able to see if the learners have acquired the correct case markings and headedness for Korean relative clauses.

1.1.3 Identity and investment

The current study uses the theoretical framework of identity and investment to help see the richness of the participants’ Korean language journeys. Previous research on identity and investment has shown that there is much more to learners’ motivation to learn and use a language than simply being motivated or unmotivated; these previous conceptualizations of language

learners do not leave any space for the notion that motivation can change over time, or indeed moment to moment, dependent on particular circumstances. A nuanced concept of investment (Norton-Peirce, 1995; Norton and Toohey, 2011) allows for viewing participants' relationships to the target language as varied, complex, and dependent on the power inequalities in their social relationships. Norton and Toohey argue that language learners' identities are not static, but rather are constantly changing and these evolving identities influence investment in language learning practices within language classrooms as well as broader communities.

Although research has been done on identity and investment in second language learning, there is a need for more multi-layered information about the characteristics of material and social resources such that they encourage participants' positive and sustained investment in a target language or such that they discourage participants' sustained participation and contribute to negative associations with language learning identities. This is where the current study is situated, in order to contribute to the field's understanding of language investment among KHL and KFL learners.

1.1.4 Relative clauses (RCs)

RCs have several advantages that make them good candidates for a language acquisition investigation. First, they are acquired relatively late in the acquisitional process (even for monolingual Korean children), indicating that they are complicated structures. Second, there are clear differences between English and Korean RCs that lend them to investigation. Briefly, English and Korean RCs have opposite directionality (right- and left-branching, respectively), and English and Korean use different mechanisms to denote subject and object grammatical functions (word order and case marking, respectively). These characteristics result in disparate

surface structures that can be seen in Korean learners' linguistic performance and easily characterized.

Because they are complicated structures that are acquired late in development, there is reason to expect that heritage learners of Korean may have incompletely learned these structures. That is, because Korean as a heritage language learners start using English at a young age and then gradually transfer to English as their dominant language, they may learn some late-acquired structures of Korean incompletely or they may have trouble with these structures later on when re-learning Korean because of attrition. This potential problem that Korean heritage learners may have with relative clauses makes the study of the acquisition of relative clauses interesting; although the hypothesis is that Korean heritage learners will have an advantage over Korean foreign language learners in acquiring this structure, it is possible that they will have more problems with relative clauses than another structure that would have been easily acquired and solidified before they were exposed to English as children.

The current study will use relative clauses as an insight into the participants' Korean syntactic proficiency. It will allow us to see part of the bigger picture of their syntactic development. We will be able to make broad observations connecting scores on a syntax measure to overall attitudes, motivations, and other aspects of the learners' Korean journeys via their long-term individual networks of practice, although these measures are not detailed enough to provide us with concrete correlations between syntactic or overall language development and Korean learning journeys in general.

1.1.5 Individual networks of practice (INoPs)

Social networks and INoPs are imperative to the study of second language acquisition because it is not enough to study the learner in isolation from society, or to study the learner's motivation (for example) as divorced from the learner's social context. It is important to look at learner characteristics and acquisition in the learner's social context because all aspects of language learning, social networks included, are in a dynamic relationship with each other and in order to understand something about a learner's identity and investment in a target language, it is important to understand something about their social network (and vice versa). If learners do not form social relationships with people and have opportunities to interact in the target language through those relationships, they may not be as successful in their language learning as otherwise (Norton & Toohey, 2001).

Additionally, the framework of INoPs allows the research to focus on the learner at the center of their own language learning journey. It allows space and reason for elicitation of the learner's own descriptions and perspectives (the qualitative aspect of the current study). It encourages the learners themselves to engage in reflection and therefore potentially contribute to the field's knowledge of how learners' identities and investment are discussed and characterized by learners themselves. Similarly, by including material resources in the INoPs (not just social connections), a more rich and complete view of the learner's environment is developed.

1.2 Summary and layout of the proposed study

The proposed study aims to examine how Korean as a foreign language learners' (KFLLs') and Korean as a heritage language learners' (KHLLs') identities as learners and

investment in Korean look over time, in a broad sense. KFLLs and KHLLs participated in semi-structured qualitative interviews about the nature of their Korean learning journeys, from the time they started learning until present. Along with these discussions, participants' attitudes toward Korean learning and motivations to start learning as well as ultimate goals for their learning were discussed. The investigation also includes a measure of participants' syntactic proficiency (Korean externally headed relative clauses) testing both comprehension and production. Individual Networks of Practice (INoPs) are used as a framework to discern the social relationships and material resources that shape participants' identities and investment and how they change over time.

Ten Korean learners participated in two relative clause tests, two years apart (the initial and follow-up tests) as well as participated in interviews about their long-term individual networks of practice (LINOps, an extension of INoPs to look broadly at social connections throughout the learners' lives). The initial syntax tests occurred after almost one year of study in a heritage Korean series for KHLLs and after almost two years of study in Korean as a foreign language classes for KFLLs (Chapter 3). The LINOps interviews occurred immediately following the follow-up syntax tests (Chapter 5). A mostly separate group of Korean learners participated in INoP interviews but did not take the relative clause tests (Chapter 4).

1.2.1 Chapter 2. Korean as a foreign language (KFL) and Korean as a heritage language (KHL) Literature Review

This chapter lays out the previous research on KFL and KHL learning. KFLLs are defined as learners who were exposed to Korean only after their first language had been well-established (for example, as a teenager). KHLLs, on the other hand, are defined as learners who

used Korean in the home as children before learning and becoming dominant in the language of their surroundings (in this case, English) and who have chosen to study Korean as English-dominant bilinguals. Korean was chosen as the focus language in this study because interest in learning KFL has been increasing in recent years due to the Korean Wave (한류, *hallyu*), and consequently enrollment in Korean classes at universities has been rising. Additionally, there are many community-based Korean language schools primarily used by KHL children to learn basic Korean literacy, which means that KHL is a robust heritage language with many potential KHLLs at the university level (the setting of the current study).

1.2.2 Chapter 3. Korean relative clause acquisition

This study investigated the performance of intermediate-level Korean as a foreign language learners (KFLLs) and Korean as a heritage language learners (KHLLs) on a narrow measure of Korean syntactic proficiency: a production task and a comprehension task on Korean externally-headed relative clauses (KRCs). Previous studies on this subject (O'Grady, Lee, & Choo, 2001; Kim, 2004; Lee-Ellis, 2011; Lee, 2014) never tested both production and comprehension of KRCs by intermediate learners, but did test production and comprehension separately, and also found conflicting patterns of subject KRC or object KRC preferences in different studies. Therefore, this study sought to answer the following research questions:

1. Do HL learners have an advantage over FL learners in acquiring Korean externally-headed relative clauses at the intermediate level?
2. Are there differences between the two groups in production vs. comprehension?
3. Are there differences between the two groups in subject vs. object relative clauses?

Eleven KHLLs, 15 KFLLs, and 5 Korean-dominant speakers participated in the relative clause test. The learners of Korean were either close to the end of their second year of foreign language classroom study (the KFLLs) or close to the end of their first year of heritage language classroom study (the KHLLs). The test was modeled on Lee-Ellis's (2011) production task and O'Grady, Lee, and Choo's (2001) comprehension task. The results of the relative clause test showed no significant difference between the overall accuracy of KHLLs and KFLLs, although the trend showed KFLL learners to be slightly more accurate. Additionally, KFLLs and KHLLs performed similarly on both the production and comprehension tasks, and participants overall performed more accurately on subject KRCs compared to object KRCs. This result called for a follow-up investigation of the same structures, undertaken in the study in Chapter 5 with some of the same participants, taking a version of the same test, two years later.

1.2.3 Chapter 4. Korean learners' individual networks of practice (INoPs)

This chapter's study focuses on investigating Korean as a foreign language learners' (KFLLs') identities as language learners and investment (Norton-Peirce, 1995) in the target language, Korean, through their individual networks of practice (INoPs; Zappa-Hollman and Duff, 2015; Zappa-Hollman, 2007). The original studies with INoPs targeted academic discourse socialization; this study instead focuses on identity and investment; it also expands INoPs to include 1) measures of the amount of time the learner spent with their INoP connections, 2) the amount of Korean vs. English used in those connections, and 3) the presence of materials (as opposed to social relationships) in learners' INoPs. The research questions were:

1. What are the natures of the social relationships and material resources in Korean learners' INoPs?

2. How do the learners' INoPs help us to understand the learners' identities and investment in Korean?

Thirteen KHLLs and KFLLs responded to a survey asking them to list their Korean-learning INoP connections and the five learners with the most developed INoPs were selected for semi-qualitative interviews in which the learner's INoP was diagrammed and the learner was asked to expand upon certain nodes. Two learners' INoP diagrams were presented as the results of the study, as well as excerpts from their interviews detailing their perspectives on various aspects of their Korean-learning situations, including their most and least helpful and motivating INoP nodes. The methodology in this chapter, along with the KRC tests presented in Chapter 3, was used as a jumping-off point for the study in Chapter 5 which further extended INoPs and began to combine learners' INoPs with their KRC test performance.

1.2.4 Chapter 5. Korean learners' long-term individual networks of practice (LINOps) and relative clause acquisition

The aim of this study was to provide a starting point for further research to bring together both quantitative and qualitative aspects of KFLLs' and KHLLs' Korean learning journeys. Using INoPs (as in Chapter 4) as a base, this study expanded INoPs into long-term individual networks of practice (LINOps) to cover the broad expanse of Korean learners' full Korean language learning journeys, that is, from the time they were first exposed to Korean until the present. It also used a modified version of the KRC syntax test in Chapter 3 to test a narrow measure of the learners' acquisition of Korean syntax. The study asked three research questions:

1. What is the nature of KFLLs' and KHLLs' LINOps?

2. Which relationships or resources do KFLLs and KHLLs think are more or less helpful? What are the characteristics of these relationships or resources that make them more or less helpful, from the learner's perspective?
3. Is there a potential correlation between a measure of syntactic proficiency and the nature of the learners' LInoPs?

The ten Korean learners in this study (4 KFLLs, 6 KHLLs) had originally participated in the KRC test study presented in Chapter 3, and two of them (Ben and Emily) had participated in the LInoP study presented in Chapter 4 (although only Ben's results were presented there). Two years later, for this study, the participants all took a modified version of the original KRC test. Therefore, this study took advantage of the ability to compare the participants' scores on the KRC tests taken two years apart. The participants also discussed their LInoPs during semi-structured qualitative interviews just after they took the follow-up KRC test. During the discussions, the Korean learners reconstructed a sketch of their LInoPs and expanded upon aspects of their LInoPs related to the research question.

The results of the LInoP discussions showed that even with only ten participants, Korean learners' Korean learning journeys varied widely with a few predictable exceptions (the enrollment in college language courses, for example). The themes that emerged from the comparison of LInoPs, however, also showed similarities within the KFLL and KHLL groups, for example, awkward relationships with language partners (for KFLLs) and attendance during childhood in Korean weekend schools (for KHLLs). When a rough measure of LInoP valence (positive or negative) was correlated with the participants' accuracy scores on the follow-up KRC test, a statistically significant relationship was found wherein the more positive the valence of the LInoP, the higher the overall accuracy score on the KRC test. This study did not provide enough data to correlate with the LInoPs in an robust and generalizable way, however, and thus is only a preliminary study that shows the potential for future research to link measures of

socially-focused nature of language learning and investment with measures of language proficiency. That is, the scores from the relative clause surveys in this study are a very tiny glimpse into the syntactic proficiency of the participants, and do not tell us anything about the overall (syntactic or general) proficiency of the learners' Korean. But, it is a stand-in to show us something about how the research could be quantified at a larger scale to see more interesting results.

The implications of the studies from Chapter 3-5 are that Korean learner identity and investment are variable and subject to individual experiences with learners' social contacts and material resources. Learners' investment in continuing to study and use Korean waxes and wanes over time, and some learners stop studying or using Korean altogether for various reasons. In this chapter, the implications and significance of the research into learners' LInoPs and their scores on the syntax survey are discussed.

Chapter 2. Korean as a foreign language (KFL) and Korean as a heritage language (KHL)

Second language acquisition (SLA) has been contemplated, discussed, and researched for millennia, but the formal study of the subject in the western tradition, focused especially on theories of how people may acquire a second language, began in the middle of the twentieth century (Thomas 2013). There are many theories on how second languages are acquired that are being researched and discussed today (for an overview, see Mitchell, Myles, & Marsden 2013). Any language may be acquired as a second language and therefore research in second language acquisition encompasses many target languages in as many different learning perspectives.

The current studies touch on both qualitative and quantitative aspects of KFL and KHL acquisition. Quantitatively, the current studies measure the accuracy of KFLs and KHLs on relative clause constructions. Qualitatively, the current studies examine a group of Korean learners' motivations to study Korean (and how those motivations change over time) as well as the learners' changing investment in Korean learning, as evidenced by which social and material resources they make use of (the learners' INoPs). This focus on investment, and how the investment shows change over time in the students' motivations to continue (or not continue) to learn Korean, is based on the notion of investment in Bonny Norton's work (Norton Peirce, 1995; Norton, 2000a; Norton, 2013). It primarily views investment as an extended notion from motivation; investment ties together language learning and the learner's identity, and especially makes space for the learner to have a complex identity and multiple desires related to the learning that change constantly over time (Norton 2000b; see Chapter 4). Considering the notion of investment to see how learners' motivations change over time is related to another goal of this study, which is to collect data on and obtain a broad view of the activities, experiences, material resources, and social connections that appear in learners' journeys, and learn how they impact

the learning journey through the perspective of the learners. Although the reasons students choose to study Korean have been reported on (see sections 2.1.3 and 2.2.3 below), those studies were not able to present a clear distinction between KFLL and KHLL learners' motivations, and those studies also did not show how motivations can change over time or how motivations are often very nuanced.

In order to investigate the above aspects of Korean language acquisition, in this chapter I present a portion of the previous literature on SLA, that which focuses on Korean as the target language from two distinct perspectives: foreign language acquisition by English speakers (section 2.1), and heritage language acquisition by English-speakers of Korean heritage (which is not strictly second language acquisition; section 2.2). Section 2.3 connects the cited literature to the current studies and discusses the gaps in the literature as the basis for the current studies.

2.1 Research on Korean as a foreign language (KFL) and KFL learners (KFLLs)

The most-studied target language for foreign language acquisition research is English. Many K-12 schools and postsecondary institutions offer English language learning instruction, and enrollment in those classes outnumbers enrollment for any other language class. Nevertheless, there has been a growing body of research on how English-speaking students acquire other languages. Since 1958, the Modern Language Association (MLA) has collected and published statistics on postsecondary school student enrollments in the most popular language courses that are not English. These statistics do not separate out students learning Korean as a foreign language and those learning it as a heritage language, but they do show that combined, the students make Korean one of the most popular languages to offer and study for

postsecondary institutions. In this section, I briefly define and review the research on learning Korean as a foreign language (KFL) in the United States and the profiles of KFL learners (KFLLs).

2.1.1 Overview of learning Korean as a foreign language (KFL) and Korean as a foreign language learners (KFLLs) in the United States

Korean is classified as a Category IV language (also described as “super-hard”) for English speakers by the Foreign Service Institute’s School of Language Studies. The same category includes Arabic, Japanese, Mandarin, and Cantonese, and is described as languages that are “exceptionally difficult for native English speakers.” With no prior knowledge of these languages, it would take an English speaker on average 2,200 class hours to reach “Professional Working Proficiency” (FSI’s Experience with Language Learning).

Nevertheless, in the United States Korean is a growing foreign language in terms of student enrollment in Korean classes and number of Korean classes offered across the country (Jee, 2015). Between 2013 and 2016, enrollments in Korean classes at United States postsecondary institutions increased by 13.7% (from 12, 256 to 13,936) even though language class enrollments overall fell in that same period by 9.2% (and in the period between 2009 and 2016, fell 15.3%). In fact, Korean and Japanese were the only two languages (out of the 15 studied) to post increasing enrollments. As of Fall 2016, Korean was the 11th-most-studied language (not including English), and since 1958, Korean has had the highest percentage change of enrollments (a 53,500% increase, from 26 in 1958 to 13,936 in 2016) (Looney and Lusin, 2018).

Part of this dramatic increase in Korean class enrollment may be attributable to children

of Korean heritage taking up classes (see section 2.2 below). For KFLLs, however, with no Korean heritage, part of this increase in enrollment is undoubtedly due to the Korean wave (한류, *hallyu*), the term used to describe the increase in popularity of South Korean pop culture (TV shows, dramas, movies, music, etc.) around the world in recent years. One of the biggest cultural exports in the Korean wave has been K-pop, “a term commonly used by foreign audiences to describe trendy South Korean pop music produced and performed by Korean musicians” (Ju and Lee, 2015: 335). Many of the participants in the current study indicated that they were first interested in K-pop (or other contemporary Korean media) first, and then decided to learn Korean. Of course, other reasons contribute to learners’ desire to enroll in classes, and this is taken up in section 2.1.3 and in Chapter 4.

2.1.2 Profile of foreign language learners (FLLs)

FLLs have first exposure to the target language after their first language has been well-established. Their first exposure to the target language is therefore much later than HLLs, who are exposed to the target language first from birth or a very young age (and exposure may continue throughout life). FLLs start out learning the target language with no heritage connections to the language such as close relatives who speak the language. Often, FLLs’ first intensive exposure to the target language is when they begin taking language classes, such as in middle school, high school, or university, especially in the U.S. context. Since FLLs choose which foreign language class they take, (usually) among many options, FLLs may already have an idea of what the language looks like or sounds like when they start classes, although this is not always the case. FLLs may have encountered aspects of the target language speakers’ culture

or have friends that speak the target language, for example, but have never heard or seen the language itself in any substantial form. Therefore, FLLs have myriad motivations to sign up for FL classes.

2.1.3 Motivations of KFLLs

There are many simply stated motivations that KFLLs give when asked “Why do you want to study Korean?” or “What motivates you to learn Korean?” Separating out the reasons that KFLLs or KHLLs choose to study Korean, however, is not simple based on the literature. For example, many studies (Lee, 2014; Liu & Shibata, 2008; Damron & Forsyth, 2012; Howard, Reynolds, & Deák, 2009; Thomas, 2010) do not separate out the reasons given by KHLLs and KFLLs. Lee (2014) only asked first-year Korean course students and did not reference any heritage-related reasons, so we may assume that the participants were only KFLLs. However Howard, Reynolds, and Deák (2009) and Thomas (2010) only asked first-year Korean course students and did mention some heritage-related reasons, so the distinction is less clear there. Damron and Forsyth (2012) reported that about half of their survey-takers self-identified as heritage learners, but still did not separate motivations into KHLL and KFLL categories. Furthermore, Howard, Reynolds, and Deák (2009) grouped Korean with other languages, such as other truly less commonly taught languages and other highly politicized languages, which obscures the identification of reasons participants may have given for choosing Korean. Here I summarize the most commonly given reasons across studies, but for a more in-depth discussion of these reasons and the methods used to collect them, see Nam (2017).

KFLLs may choose to study Korean because they are interested in some aspects of

traditional or contemporary Korean culture (Lee 2014). Pictures of hanbok (한복, traditional Korean clothing) appear in restaurants, stores, books, products, and on TV; Korean food (especially Korean barbecue) is an increasingly popular choice when going out to eat. As mentioned above in section 2.1.1, music (K-pop), TV shows, and movies make up a large portion of Korea's cultural exports, and the Korean wave has reached many people around the world who would not have otherwise remarked on Korea or Korean culture. Gangnam Style (강남스타일), a song by the popular Korean artist Psy, went viral in late 2012 and many people who otherwise would have heard nothing about Korean music may have been inspired to listen. Because of this, one of the motivations for people to sign up for Korean language classes is a desire for cultural understanding (Liu and Shibata, 2008); in one study, 22% of students surveyed said they were highly motivated to study Korean because of an interest in pop culture (Damron and Forsyth, 2012).

Another reason to study Korean is social contact. Korean is one of the most widely spoken immigrant languages in the U.S. along with Spanish and others (Howard, Reynolds, and Deák, 2009) and so many people living in the U.S. know Koreans or people who speak Korean. They may have been exposed to a bit of culture here or there, like a meal at a Korean friend's house, but the main reason that they would end up studying Korean would possibly be to be able to communicate with Korean people (Thomas, 2010).

Another reason for people to study Korean is for business opportunities and future job prospects (Lee, 2014), however, some KFLs in a study by Choe (2013) said that Korean has a low utilitarian value and there are limited opportunities to use it (these students continued to study Korean for other reasons, such as a strong cultural interest).

Finally, some studies have shown that there are also less targeted, more general reasons

to study Korean. Some students may have a general interest in foreign languages and other cultures, or have a general interest in Korean as a less commonly known and taught language, or have a general interest in Korean because they heard that it is a difficult language to study (Thomas, 2010; Murphy et. al., 2009). The top two reasons for studying Korean as reported in Damron and Forsyth's 2012 study were "it looked interesting" and "it's an important language."

2.2 Research on heritage languages, Korean as a heritage language (KHL), and KHL learners (KHLLs)

Heritage learners in general are a unique group of language learners, distinct from both FL learners and monolingual minority language speakers. Generally, they are born into a family of people who speak a minority language in their country, or move to a country in which the language is a minority language during early childhood. The children's parents are either monolingual or dominant in the minority language, and so the children's linguistic environment consists of only, or mostly, the minority language until they start school, during which their environment begins to include much more of the majority language (Montrul, 2013).

Although HL speakers may have the above situation in common, there is still wide variation among them in their HL skills. Their proficiency depends on a number of factors, including but not limited to age of exposure to the majority language, language identity, and amount of continued exposure to the heritage language compared to the majority language. Typically, however, the trajectory of the language dominance (for both the minority and majority language) is similar across HL speakers. After being essentially monolingual in the minority language during the first several years of their lives, the children begin to use the majority

language more than the minority language in school and therefore become more dominant in the majority language over time (Montrul, 2013). There may be a period of roughly balanced bilingualism (Kohnert and Bates, 2002), but then the minority language stops developing and the majority language is by far the more comfortable language and the language that the children will continually use (the dominant language) (Kohnert, Bates, and Hernández, 1999). This results in a situation where the children are not as proficient in the minority language as their parents or other minority language monolinguals.

If these children enroll in classes or otherwise formally start studying the minority language later in life, especially after the majority language has become their dominant language, they may be considered HL learners (HLLs). HL learning, although similar to, is not considered second language learning (SLA) since HLLs' first language was the HL, and the majority language is technically their second language (even though it becomes the dominant, and sometimes the only, language for HL speakers). Compared to FLLs, HLLs typically have more native-like phonological speech characteristics, but HLLs' performances on vocabulary, inflectional morphology, and syntactic (e.g. case and agreement morphology, long-distance dependencies, relative clauses) measures vary widely across HLLs (Montrul, 2010).

One survey designed to get a profile of heritage language learners' background, practices, views, goals, and attitudes with regards to their heritage languages was conducted by the National Heritage Language Resource Center (NHLRC) and was reported on by Carreira and Kagan (2011). The survey collected responses from 1,732 students who were learning 22 heritage languages in college courses; the surveyors made a concerted effort to include responses from students taking less commonly taught heritage languages (e.g. Thai, Hindi/Urdu, Japanese, and others) as well as ones that are commonly taught (e.g. Spanish, Mandarin, Cantonese,

Russian, and others). Across all heritage languages, the majority of the respondents were early sequential bilinguals, meaning that they acquired the HL before acquiring English, usually acquiring English when they started school. The majority of respondents also primarily had exposure to the HL at home but limited exposure to the HL outside of the home. They rated their own listening skills in the HL as strong, but their own reading and writing skills in the HL as relatively weak compared to native speakers of the HL. The respondents had mostly positive views and anecdotes to share about knowing or learning their HL, and the top reason they gave for studying the HL was to connect to other speakers of the language in the U.S. (Carreira & Kagan, 2011).

Most language-specific research on heritage language classes in postsecondary institutions has been focused on Spanish as a heritage language as Spanish is the most widely-spoken heritage language in the U.S., and because Spanish is the most widely-taught foreign language at all levels of education in the U.S. (Carreira, 2014; 2017). However, see section 2.2.1 below for information on KHL programs.

2.2.1 Overview of learning Korean as a heritage language (KHL) and KHL learners (KHLLs) in the United States

KHL is spoken by thousands of people in the U.S. and as such has one of the largest speaker/learner populations in the U.S. The major concentrations of Koreans and Korean Americans in the U.S. are in Los Angeles, New York, and Chicago, although smaller communities exist in many other cities and towns (Zhou & Kim, 2006). There have been several waves of immigration of Koreans to the U.S., and the most recent wave, starting around 1965, has resulted in the highest number of Korean immigrants to the U.S. to date. In 1960, Korean

was the first language of only 8,550 foreign born people in the U.S., but by 1970 that number had already increased to 34,748 (Wiley & Bhalla, 2017). In 1970, there were less than one hundred thousand Korean immigrants in the U.S., yet that number grew to more than 1.2 million immigrants by the year 2000 (Zhou & Kim, 2006). Since 2000, this trend has continued, and in 2015 Korean immigrants accounted for 2.4% of the entire population of U.S. immigrants (Zong & Batalova, 2017). Between the years of 2006 and 2010, Korean was counted as the 7th most commonly spoken language in the home, other than English (Wiley & Bhalla, 2017).

One of the most popular ways that KHLLs receive instruction in Korean before attending a postsecondary institution is by going to a community language school. By one estimate, there are over 60,000 students who attend Korean community language schools at over 1,200 such schools (Park, 2008; Lee & Shin, 2008). Sometimes called Korean Weekend Schools (Park, 2008) or Korean language schools (Zhou & Kim, 2006), these programs mainly provide classes in Korean to KHLLs, and are typically the KHLL's only formal instruction in Korean. Classes are usually held on Saturdays, for several hours in the morning, or Sunday evenings after church services. Depending upon the size of the population being served, these programs may provide many classes at a variety of levels of Korean language proficiency and may have students from kindergarten up until 12th grade. However, many of the students are usually very young and are there to become literate in Korean or preserve their Korean speaking abilities (Park, 2008).

These programs can be run by secular organizations, but over three-quarters of them are run by Korean Christian churches, with volunteers as the language instructors. These churches are therefore the single-most important provider of Korean language education in the U.S. for children in K-12, and this system works to reach many KHLLs because a majority of

contemporary Korean immigrants to the U.S. are Protestant and attend weekly church services (Zhou & Kim, 2006; Lee & Shin, 2008).

Another way that some KHLLs (and a small number of KFLLs) may receive Korean language instruction before attending a postsecondary institution is through dual immersion programs in Korean and English. This is a program where both English and Korean are integrated into the regular school day as languages of instruction, and there are many different ways in which both may be incorporated. There are very few of these programs compared to community language schools, however (Lee & Shin, 2008).

When KHLLs become older, one of the most popular ways for them to study Korean is by taking classes offered by a postsecondary institution. Carreira (2014, 2017) surveyed HL programs at postsecondary institutions; the survey was a broad search for information about the heritage language student population sizes, curricula, policies, procedures, and other information on postsecondary institution programs that offer at least some type of specific HL instruction. Thirteen responding institutions stated that they had Korean language programs. Out of those, nine reported that they offered one or more courses in Korean that was specialized for KHLLs (the others would only have KFL courses). Most of these programs offer only one or a couple of levels of KHL. Out of the nine programs that offered at least one KHL course, one program offered four or more KHL courses: UCLA. In UCLA's program, the largest of the responding programs, the typical HL class size was above 20, and KHLLs accounted for 25-50% of the overall student body taking Korean courses.

2.2.2 Profile of KHLLs

Following the definition of HLLs above in section 2.2 referencing Montrul (2013), KHL speakers in the U.S. are typically children who were born in Korea and whose family moved shortly thereafter to the U.S., or who were born in the U.S. to a predominantly Korean-speaking family (their parents and extended family are either monolingual or dominant in Korean). They grew up speaking only or mostly Korean in their homes, with little or no exposure to or learning of English, the majority language of the country. Then, around the age of 3-5 years old, they started preschool, kindergarten, or first grade in an English-speaking school. Over time they acquired English and, even though they still spoke Korean in the home with one or both parents, English became their dominant language, that is, the one they were more comfortable with using and would use for most aspects of their lives (friends, school, jobs, perhaps speaking with siblings, etc.).

During this time, some KHL speakers attend Korean weekend school or another similar community based language classes, typically offered by Korean community churches. These schools typically offer instruction in Korean, starting with the alphabet and basic literacy skills, for KHL speaking children at various skill levels from elementary school age through to high school age. At the postsecondary level of education, these children may opt to take KFL or KHL classes, if offered. If KHL speakers take language classes in Korean, they may be referred to as KHL learners (KHLLs).

One definition of a heritage learner includes both those who have some proficiency in the minority language (such as described above), but also includes those who have no linguistic proficiency, but instead have some ethnic or cultural connection to the language. Under this definition, Korean children adopted by English-speaking families, children with only one

Korean-speaking parent (for whom Korean is not the predominant language of the home), and third or fourth generation Korean Americans (also for whom Korean is not the predominant language of the home), for example, would also be defined as KHLLs (Lee & Shin, 2008). For the current study, I adopt the definition that would include only those with some Korean proficiency, as described by Montrul (2010, 2013) and summarized above.

Carreira and Kagan (2011) reported on a nationwide survey of 1800 college-age HLLs representing 22 different HLs, for the purpose of investigating their linguistic profiles, goals, and attitudes. From their study we can get a picture of certain facts about the average KHLL attending a postsecondary institution, based on responses from 134 KHLLs. Of these KHLLs, 75.9% were born in the U.S., and a further 19.8% arrived in the U.S. before age 11. As children, 80.3% of respondents were read to in Korean by family members, but as a group, the KHLLs were one of the least likely groups (compared to HLLs of other languages) to read in the HL in college. Out of all the HL groups, KHLLs had the highest rate of participation in a community or church school growing up (72.3%), and their participation in community events was also high (50.4%), which illustrates how impactful the Korean church or community language schools are, since they reach such a large percentage of KHLLs overall. A surprising fact about second-generation KHLLs is that an overwhelming majority of them (77%) said that they speak only or mostly English to their parents after the age of five, even though their parents speak almost only Korean (Min, 2000).

When asked to rate their Korean language skills, 78.2% rated their own listening skills as intermediate to advanced, but rated their own speaking skills as low to intermediate, showing that the average KHLL has much more confidence in aural rather than oral skills. As for literacy, 84.8% said their reading skills were low to intermediate, and 89.9% said their writing skills were

low to intermediate, showing that literacy skills are the ones that KHLLs are least confident in (Carreira & Kagan, 2011).

2.2.3 Motivations of KHLLs

Many reasons that motivate KFLLs to study Korean (see section 2.1.3 above) may also apply to KHLLs. KHLLs choose to enroll in Korean classes, whether specifically classes for KHLLs or KFL classes, for a variety of reasons, and their goals for studying Korean may be just as varied as those of KFLLs, with the broader inclusion of motivations and goals related to having Korean heritage or family members. Carreira and Kagan (2011), who surveyed only KHLLs, reported that the most cited top priority for KHLLs to study Korean was to fulfil a language requirement (72.9%). The other often-cited goals for studying Korean included to communicate better with family and friends in the U.S. (64.4%), to learn about cultural and linguistic roots (54.2%), and to communicate better with family and friends abroad (51.7%).

Howard, Reynolds, and Deák (2009), who surveyed both KFLLs and KHLLs, found that many students have career aspirations related to Korea or Korean, and they also mention that one major motivation for students learning Korean is related to heritage or family motivations. Talking with Korean-speaking relatives was also mentioned as a motivation to study Korean by respondents in Thomas (2010). Murphy et. al. (2009) found that, for learners of less commonly taught languages (including Korean), family or heritage related reasons for studying were more commonly cited than for learners of more commonly taught languages.

Yang (2003) looked at motivations of learners of Chinese, Japanese, and Korean, and categorized learners' motivations for study into seven motivational orientations (integrative,

instrumental, heritage-related, travel, interest, school-related, and language use). Integrative and instrumental motivational orientations were first introduced by Gardner (1985) and have been applied to many studies looking at motivations for learning languages. An integrative motivational orientation is defined as the learner wanting to meet or converse with many diverse people, or wanting to understand other people and their ways of life, and an instrumental motivation is defined as the learner believing that learning the language would result in more or better job opportunities, or believing that learning the language would make the learner better educated (Gardner, 1985).

Yang's study found that, across all three languages, learners were most strongly driven by interest in the target language, intellectual satisfaction, and an integrative orientation. By and large, these learners were not driven to study by language requirements or an instrumental orientation, which is interesting as many of the above studies cite jobs and careers as a potential motivating factor. However, this study differs from the above studies in that it includes the motivations of students for several languages (not just Korean). Also, in contrast to the motivations of students across all three target languages, the participants who studied Korean were more likely to have a school-related motivational orientation. A school-related orientational motivation in this study included reference to language requirements, an easy grade, the reputation of language classes, and/or evaluations of the teachers. For the Korean learners in this study, 74% of them were identified as KHLLs. Perhaps because of this, the most often-cited reasons to study Korean by participants in this study related to having a heritage-related motivational orientation. This encompassed reasons related to the learner's ethnic background, parental encouragement, or friends using the language.

Liu and Shibata (2008), who looked at Chinese, Japanese, Korean, and Vietnamese

learners in California, found that the Korean learners in their study often reported cultural understanding or other integrative reasons as their motivation to study Korean. Heritage-related reasons to study Korean were not often cited for Korean learners, however. This is an interesting result as it contrasts with many studies mentioned above, in which for KHLLs, heritage-related reasons rank high on the list. The caveat here was that heritage-related reasons for studying Korean in Liu and Shibata's study were relatively, not absolutely, low, compared to Chinese and Japanese HLLs.

2.3 Rationale for current studies (research literature gap/implications)

One of the goals of the current study is to offer a more nuanced view of the reasons students choose to study Korean. Many previous studies have focused on the stated reasons given as motivation by Korean learners to study Korean, for example, "to learn about Korean culture" or "to communicate with my family in Korean" (see sections 2.1.3 and 2.2.3 above). These surveys have contributed answers to the question of why students choose Korean, but have stopped short of considering motivation as anything more than a clear-cut distinction or of considering the fact that reasons can be manifold, some more important than others, and can change over time. The current study aims to address this by studying each participant's journey of studying Korean, from the time they were first exposed to Korean or inspired to start, and following through to the present day. Specifically, students of Korean are asked what their motivation was when they started, and what their motivation is now (if they are still learning). To add to that, the process of documenting the students' social and material practices over the time that they studied Korean (their INoPs, which allude to how they are invested in learning) allows

us a window to judge how the student's motivation changes over time, especially how some reasons become more or less important, or suddenly appear or disappear altogether. In addition to a more holistic view of students' stated reasons to study Korean, the current study focuses more on investment in the language learning, rather than on motivation as a binary distinction and rather than on the stated motivational reasons being the most important and essential point of focus of the student's desire to study.

Another goal of the current study is to ascertain more about how KFLLs' and KHLLs' Korean learning journeys differ, and therefore how similar or dissimilar their needs are to make the most out of studying Korean. The above studies cited in section 2.2.3 have focused on the characteristics of KHLLs such that they would have different needs compared to KFLLs when starting to study Korean (especially in a classroom), but much of this has focused on the beginning of study in a postsecondary classroom, where the assumption is that the KFLL has had no prior experience with Korean and the KHLL has at least intermediate aural, and at least low oral and literary proficiency. But how do KFLLs' and KHLLs' needs and desires change over time, especially after they are past the first year or so of postsecondary level study, when the KFLLs have had some time to study the basics? Do KFLLs and KHLLs need to continue to be separated throughout the course of postsecondary study; do their needs stay so distinct? Or, do the needs of the two groups become more similar over time, or are there other benefits of having both groups in the same classroom later on? By taking both KFLL and KHLL participants for the current study, we aim to determine a bit more of the intermediate and advanced level stages of learning in the postsecondary classroom for both groups.

A further aim of the current study is to provide a finer view of the profiles of KHLLs by using in-depth interviews as a data collection method rather than surveys that aim to reach a

higher number of people, but that frequently reduce the participants' characteristics into a set of predetermined categories with no room for nuance (see section 2.2.2 above). HLLs are such a large group with so many varied characteristics and backgrounds that it would be impossible to see the entire breadth of the population, but the current study looks to acquire in-depth information on a smaller number so that we can access their background information on an individual basis. This will also allow the KHLL participants to provide their own views, with their own words, of their experiences and feelings as KHLLs, instead of just ticking boxes giving information such as when they first started learning English and if they attended a Korean community language school, for example. With the addition of asking the KHLL participants how their journeys have changed over time, that is, from birth until present, we will also be able to push past a notion of heritage language learning as remaining at the same level of motivation and proficiency because their motivation to study the target language is tied to their families which is a static part of their lives.

In the next chapter (chapter 3), I introduce the quantitative current study on the acquisition of Korean relative clauses by KHLLs and KFLLs. Although it does not investigate learners' investment in or motivation to learn the language, it lays the groundwork for understanding the differences and similarities between KFLLs and KHLLs in one aspect of language acquisition at the intermediate learning level (written production and oral comprehension of relative clauses).

Chapter 3. Korean relative clause (KRC) acquisition

Age of acquisition has been shown to be a very significant factor in mastery of grammatical structures of a language (e.g. Johnson & Newport 1989, Herschensohn 2007), yet early bilinguals who are heritage learners may show variable mastery (Montrul 2008, 2016). For example, Montrul has shown similarities and differences between heritage speakers and adult L2 learners of Spanish. The current study shifts focus to Korean language to determine if Korean as a heritage language learners (KHLLs) show an advantage over Korean as a foreign language learners (KFLLs). The main goal of the current study is to investigate the differences in acquisition of Korean externally-headed subject and object relative clauses (SRCs and ORCs)¹ by both KHLL and KFLL Anglophone learners of Korean. KHLLs are defined as having been exposed to Korean in the home environment from a young age, and KFLLs are defined as having first been exposed to Korean as adults, having already fully acquired their first language. Korean has two types of relative clauses: externally-headed using the relative clause marker *-un/nun* - *은/는* to link the relative clause and the head noun phrase, and internally-headed using the head noun phrase placeholder *-kes* - *것*. The current study focuses on subject and object externally-headed relative clauses in Korean and leaves an investigation of the internally-headed relative clauses for further research at a later date.

Subject and object relative clauses acquired by Anglophone learners of Korean were chosen as the focus construction for the current study because there are clear differences between English and Korean that lend the constructions to investigation. Briefly, the directionality of

¹ Relativization of other arguments as well as adjuncts is possible in Korean (as in other languages as well). The current study focuses on relativizations of subject and object arguments only, as the most cross-linguistically common relative clause types, and leaves other positions for future research.

English and Korean relative clauses are opposite (right- and left-branching, respectively), and English and Korean use different mechanisms to denote subject/object grammatical functions (word order and case marking, respectively). These characteristics result in disparate surface structures that can be seen and easily characterized. For further discussion, see section 3.1 below.

The current study focuses on comparing KHLLs and KFLLs because KHLLs' profiles are still not well understood, especially in how they differ from typical KFLLs who already have an established first language before acquiring the second. The current study aims to build on previous research to further establish what we know about heritage learners. For further discussion on KHLLs and KFLLs, see Chapter 2.

The chapter is organized into six sections. Section 1 lays out the background information for the investigation and discusses the reasons for choosing subject and object relative clauses (hereafter, simply relative clauses). It includes a discussion of the syntax of relative clauses in both English and Korean, focusing on case particles vs. word order, subject vs. object relative clause differences, directionality/branching, and establishing a simple syntactic analysis for both. Section 2 introduces several past studies concerning the acquisition of relative clauses by KHLLs and KFLLs. Section 3 establishes the research questions, participants, and methods for the current study, as well as the results and discussion of the results. Section 4 discusses the limitations of the experiment, Section 5 suggests improvements and extensions for further research, and Section 6 concludes.

3.1 Overview of English and Korean externally-headed relative clauses (EHRCs)

Externally-headed relative clauses (EHRCs) have several advantages that make them prime candidates for a language acquisition investigation. They are acquired relatively late in the

acquisitional process for Korean monolingual speakers, indicating that they are complicated structures. According to Cho (1999), “relative clauses have been claimed to emerge relatively late in the course of development, based on children’s spontaneous productions which contained few sentences with relative clauses. Also in experiments, children appeared to systematically misconstrue sentences containing relative clauses” (p. 29). Cho also reports that internally-headed relative clauses (IHRCs) are acquired much earlier than EHRCs, which emerge late. Because they are complicated structures that are acquired late in development, there is reason to expect that KHLLs may have incompletely learned these structures, or may have learned them late and then attrited. That is, because KHLLs start using English at such a young age and then use English as their dominant language, they may learn some complicated structures of Korean incompletely or they may have trouble with these structures later on when re-learning Korean because of attrition. This potential problem that KHLLs may have with EHRCs makes the study of the acquisition of these RCs interesting; although the hypothesis is that KHLLs will have an advantage over KFLLs in acquiring this structure, it is more possible that they will have more problems with EHRCs than another structure that would have been easily acquired and solidified before they were exposed to English as children.

Additionally, EHRCs are easy to investigate because English and Korean EHRCs are clearly different from each other in two ways, both of which must be acquired by the learner in order to produce and comprehend grammatical RCs: (1) the difference in head directionality, and (2) the difference in how subject relative clauses (SRCs) vs. object relative clauses (ORCs) are distinguished. In such an investigation into the acquisition of RCs, the investigator can clearly see if a learner is still relying on transfer from English in order to construct or interpret a relative clause in Korean if the learner is using English head noun phrase directionality (head-initial) and

if the learner is using the English mechanism to distinguish between SRCs and ORCs (word order). On the other hand, the investigator can see that the Korean EHRC mechanisms have been acquired by the learner if the learner correctly uses Korean head noun phrase directionality (head-final) and if the learner is using the Korean mechanism to distinguish between SRCs and ORCs (case marking). In the following subsections, I give more details on these two differences between English and Korean that allow the acquisition of EHRCs to be easily and clearly investigated.

3.1.1 English relative clauses

English RCs are distinct from Korean RCs in that they (1) are head-initial, instead of head-final, and (2) exhibit differences in word order within the RC, which indicates whether the head is the subject or the object of the RC. Below, I discuss directionality and word order in English RCs, as well as present a syntactic analysis of English RCs and summarize what English users must implicitly know about RCs in order to produce and interpret them correctly.

3.1.1.1 Directionality

English relative clauses are head-initial (Flynn 1987, p. 66). This means that the head of the relative clause precedes the complementizer ‘that’ as well as the rest of the relative clause (with a gap in the position where the head noun phrase would appear in the declarative version of the sentence). Therefore, we expect that English speakers who are learning Korean come to the table with their directionality parameter assigned to “head-initial” (right branching) and must learn to reassign that parameter to the appropriate Korean setting (described in section 3.1.2.1

below). In example (1) below, the initial noun phrase “the orange” in the sentence is the head of the relative clause “that the boy liked” and it is also the subject of the matrix sentence “the orange was not for sale.”

- (1) The orange that the boy liked was not for sale.

3.1.1.2 Subject and object RCs (SRCs, ORCs)

English makes use of word order to distinguish between subject and object relative clauses (SRCs, ORCs). Within a monotransitive RC, the placement of the subject or object NP relative to the verb indicates whether the RC is an SRC or an ORC.

In all English RCs the head noun phrase is initial, followed by the complementizer ‘that’ or ‘who/which’. In SRCs, the order of the verb and the remaining object noun phrase (in the case of a transitive verb) is VERB-NP (there is a gap before the verb, where the subject would be if it were a declarative sentence—SVO). In ORCs, the order of the verb and the remaining subject noun phrase is NP-VERB (there is a gap after the verb, where the object would be if it were a declarative sentence). This is illustrated in (2) below.

- (2) A. Declarative sentence (SVO): The cat licked the dog
B. SRC (HEAD NP-‘that’-VERB-NP): The cat that licked the dog
C. ORC (HEAD NP-‘that’-NP-VERB): The dog that the cat licked

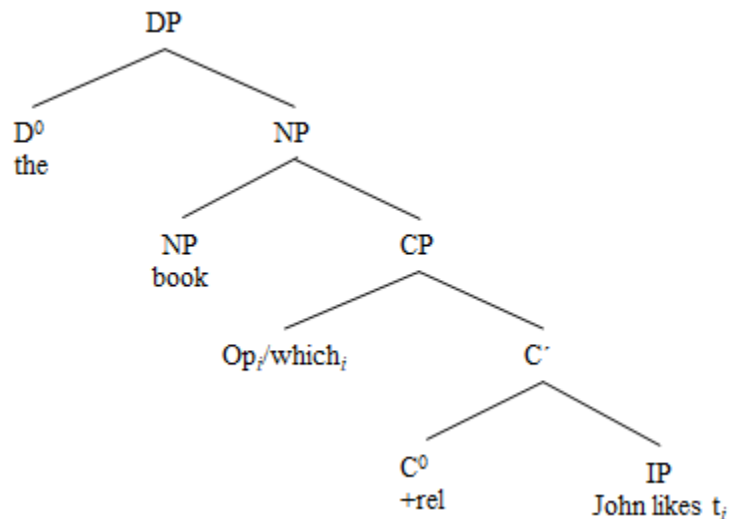
3.1.1.3 Syntactic analysis

Many analyses have been proposed to represent the syntactic structure of RCs in English. The analysis I will focus on for the purposes of this chapter is one head external analysis as originated by Quine (1960), Montague (1974), Partee (1975), Chomsky (1977), Jackendoff (1977); the version I discuss here was consolidated and presented more recently by Bhatt (2002)². The reason I focus on a head external analysis is that the same analysis had been proposed and shown to fit Korean RCs (KRCs) by Han (2013; but called the Operator Movement Analysis; see section 3.1.2.3 below).

The head external analysis for English RCs (Bhatt, 2002) can be illustrated as in example (3) below from Bhatt (2002), and its corresponding tree for visual representation in (4).

(3) Head external analysis example (from Bhatt 2002, p. 44)
 the book [_{CP} Op/which_i John likes t_i]

(4) Visual representation of (3) above (from Bhatt 2002, p. 44)



In this analysis, the head of the RC ('the book) is generated in a position outside of the RC CP. Within CP, there is movement of the relative pronoun 'which' from its clause-internal


² Other proposals include the head raising analysis (Kayne, 1994) and the matching analysis (Sauerland, 1998), among others.

position to [Spec, CP]³. The relative pronoun ‘which’ is linked to the head noun phrase ‘the book’ via intersective modification (Bhatt 2002).

Evidence from the subjacency condition gives support to this type of analysis. For example, in (5) below, the movement of ‘whom’ to [Spec, CP] crosses the boundaries of an NP within an IP, which results in ungrammaticality due to the complex NP constraint. (The # below a bracket indicates a violation of subjacency.) This evidence from the subjacency condition indicates that movement is involved in the formation of RCs in English.

(5) Example from Haegeman (1994, p. 208)

*[_{NP} the man [_{whom}_i [_{IP} Emsworth made [_{NP} the claim [_t_i that [_{IP} he will invite t_i]]]]]]]



3.1.1.4 What English speakers know about RCs

To summarize the above sections, I review the important points here. First, English speakers (including KHELLs for whom English is their dominant language) form RCs in English with the head noun phrase and relative pronoun (or complementizer ‘that’, or neither) preceding the relative clause. That is, they have assigned the English parameter setting (head initial, right branching) to RC formation. Second, English speakers differentiate between SRCs and ORCs for transitive verb RCs by paying attention to the word order of the verb and the noun phrase within the RC. If there is a noun phrase before the verb in the RC, they know that the head noun phrase (at the beginning, before the complementizer or relative pronoun) of the RC has the grammatical

³ This analysis can easily accommodate instances when there is no overt relative pronoun (such as in the sentence ‘the man Emsworth will invite’) by having a null operator be generated in the same clause-internal position and move up to [Spec, CP] instead of the overt relative pronoun ‘whom’. In relative clauses using ‘that’ (‘I know the man that Emsworth will invite’), ‘that’ would be generated as the head of C, and a null operator would still get generated in its clause-internal position and move up to [Spec, CP].

function of ‘object’ within the RC. If there is a noun phrase after the verb in the RC, they know that the head noun phrase of the RC has the grammatical function of ‘subject’ within the RC. Last, English speakers have a syntactic representation of RCs that may resemble a head external analysis as detailed above in section 3.1.1.3. This syntactic analysis was chosen in order to mirror the syntactic analysis that will be shown for Korean RCs in section 3.1.2.3, for ease of comparison.

3.1.2 Korean relative clauses (KRCs)

Korean RCs are distinct from English RCs in that they (1) are head-final, instead of head-initial, and (2) exhibit differences in which case-marking particle is used within the RC, which indicates whether the head is the subject or the object of the RC. Below, I discuss directionality and case marking in Korean RCs, as well as present a syntactic analysis of Korean RCs and summarize what Korean users must implicitly know about RCs in order to produce and interpret them correctly.

3.1.2.1 Directionality

In Korean, the RC directionality parameter is the opposite of English. Whereas in English, RCs are head-initial (right branching), in Korean, RCs are head-final (left branching). This means that the head of the RC comes at the very end of the RC, after the relativizer ‘n’⁴. In

⁴ There are three variants for the KRC marker *-un/nun/l* (below). For simplicity, I will refer to this relativizer throughout the paper as ‘n’. The difference in the variants corresponds to the change in tense; *-nun* marks the present, *-n* marks the past, and *-l* marks the future. There are further variations on the syllable based on the preceding syllable’s final consonant or lack thereof, but these are the basic forms.

(i) 영화를 보는 여자
yenghwa.lul po.nun yeca

the example below, ‘koyangi’ (*cat*) is the head noun phrase; it comes at the end of the string after the relativizer, which succeeds the verb.

- (6) 강아지를 핥은 고양이
 kangaji-lul halt-un koyangi
 puppy-ACC lick-rel.PAST cat
 ‘the cat that licked the puppy’

3.1.2.2 Subject and object KRCs

The way that one may distinguish between SRCs and ORCs in Korean is different than in English. Whereas in English word order is the differentiating factor (see section 3.1.1.2 above), in Korean it is the case marking system. Word order cannot be used to distinguish between SRCs and ORCs in Korean because both the subject and the object noun phrases would precede the transitive verb in a KRC (default word order in Korean is SOV; in both SRCs and ORCs in Korean the order of the verb and noun phrase is first, noun phrase, second, verb; immediately succeeded by the relativizer ‘n’ and then the head noun phrase). Therefore, once one of the noun phrases (either the subject or the object) moves to the right of the CP and appears at the end of the clause after the relativizer attached to the end of the verb, it is only the case marking on the RC-internal noun phrase that determines the grammatical functions of the internal noun phrase and the head noun phrase as either the subject or object of the RC verb.

-
- (ii) movie.ACC see.PRES-REL woman
 ‘The woman who sees the movie’
 영화를 본 여자
 yenghwa.lul po.n yeca
- (iii) movie.ACC see.PAST-REL woman
 ‘The woman who saw the movie’
 영화를 볼 여자
 yenghwa.lul po.l yeca
- movie.ACC see.FUT-REL woman
 ‘The woman who will see the movie’

In a Korean SRC the in-situ object carries the accusative case marker ‘ul/lul’⁵. This indicates that the in-situ noun phrase is functioning grammatically as the object, and therefore the noun phrase in the head noun phrase position (at the end of the RC after the verb) is the subject of the RC (and the whole RC is called an SRC). An example of this can be seen in (7) below. In a Korean ORC, on the other hand, the in-situ subject carries the nominative case marker ‘i/ka’⁶. This indicates that the in-situ noun phrase is functioning grammatically as the subject, and therefore the noun phrase in the head noun phrase position is the object of the RC. An example of this can be seen in (8) below. In either case, once the RC with its head noun phrase is situated within a larger sentence, the head noun phrase of the RC then takes a case marker according to its own grammatical function in the larger sentence.

(7) Korean SRC

강아지를 핥은 고양이
kangaji.lul halt.un koyangi
puppy.ACC lick.PAST-REL cat
‘the cat that licked the puppy’

(8) Korean ORC

강아지가 핥은 고양이
kangaji.ka halt.un koyangi
puppy.NOM lick.PAST-REL cat
‘the cat that the puppy licked’

Because of these differences in distinguishing between SRCs and ORCs in both English and Korean, English speaking learners of Korean need to develop sensitivity to case marking and not word order in order to correctly produce and comprehend RCs.

3.1.2.3 Syntactic analysis

⁵ If the noun phrase ends in a consonant, the form ‘ul’ appears; if a vowel, the form ‘lul’ appears.

⁶ If the noun phrase ends in a consonant, the form ‘i’ appears; if a vowel, the form ‘ka’ appears.

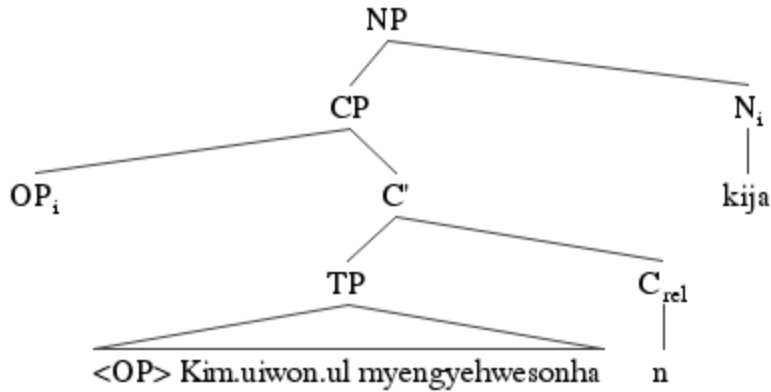
Han (2013) evaluates the possible syntactic structures that may be attributed to Korean RCs. The author provides evidence from one theoretical and one empirical experiment, showing that the head-raising analysis (originally from Kayne [1994]) and the operator binding analysis (as applied to Korean by Choo [1994] and Kwon [2008]) do not correctly predict RC constraints in Korean, whereas a head external analysis (as applied to Korean by Han [1992, 2013] and also called an operator movement analysis) does. For example, neither SRCs nor ORCs allow extraction from islands, nor permit resumptive pronouns, as predicted by a head external/operator movement analysis⁷. For the purposes of this investigation, I will adopt the head external/operator movement analysis (as presented by Bhatt [2002] and Han [2013]), facilitating an analysis of parameter resetting for English-speaking learners of Korean. I refer the reader to Han (2013) for an extensive discussion of the various analyses that may be applied to KRCs, and a discussion of their strengths as well as weaknesses.

The operator movement analysis was proposed for and applied to Korean by Han (1992) and Han (2013). In this analysis, the head noun phrase of the RC is base-generated outside of the RC. Within the RC, there is a gap at the base position of the head noun phrase argument. An operator is base-generated in place of the head noun phrase, and then the operator moves overtly from its base-generated position to the specifier position of the RC. Importantly, there is a movement relationship between the trace and the specifier position of the CP inside the RC. The tree structure of this analysis is given below in (9).

(9) Operator movement (adapted from Han [2013], p. 322)

[___	Kim-uiwon-ul	myengyehwesonha-n]	kija
		Kim-senator-ACC	defame-REL	reporter
		‘the reporter who defamed Senator Kim’		

⁷ For the duration of the discussion of the syntax of Korean relative clauses I will refer to the analysis as “operator movement,” but it is essentially the same as the “head external” analysis applied to English in a previous section.



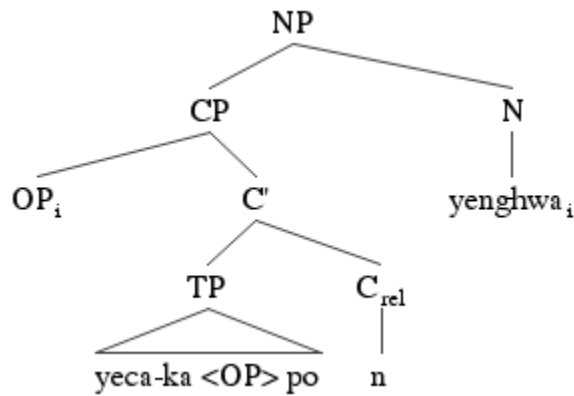
This analysis makes the prediction that we will see movement effects (similar to the subjacency condition mentioned for the head external analysis of English in section 3.1.1.3) due to the movement relation between the gap and the operator in specifier position. This movement analysis predicts that since movement has already taken place in the structure (specifically, the operator to [Spec, CP]), the embedded clause has become an island, and as such further movement out of it would be ungrammatical (for example, relativizing another element out of the embedded clause). This analysis also makes the prediction that resumptive pronouns will not be available in RCs, since resumptive pronouns can only replace null pronouns, and cannot replace traces.

There is some controversy as to whether or not relativization out of an island is grammatical in Korean, as well as whether or not resumptive pronouns in an RC are grammatical in Korean. There are mixed grammaticality judgments in the literature, as reported by Han (2013). However the author determines that relativization out of an island is in fact ungrammatical, and that resumptive pronouns in RCs are also ungrammatical, on the basis of empirical evidence. Ultimately, two experiments were performed to determine which analysis (the operator movement analysis or the operator binding analysis) is correct for Korean. The experiments were two magnitude estimation task experiments. The first experiment tested 23

is generated as an operator, which moves up to [Spec, CP] and is co-indexed with the head noun phrase. That is, the difference between (10) and (11) is that the operator links to the embedded subject in (10) but to the embedded object in (11). In both cases, the operator links an element from the embedded clause to the overt head noun phrase in the matrix clause.

(11) Korean ORC (adapted from Han [2013])

여자가 본 영화
 [Op_i [yeca-ka <Op_i> po-n]] yenghwa_i
 woman-NOM see-PAST.REL movie
 ‘The movie (that/which) the woman saw’



3.1.2.4 What English-speaking learners of Korean need to learn about RCs

To summarize, I review the important points here. First, Korean target language learners must learn to assign the setting of the head directionality parameter to the correct Korean setting: head-final (left branching). This means that the head noun phrase, following the relativizer, comes after the relative clause CP, as opposed to in English, where it comes before. Second, Korean learners must learn to make use of the Korean case system in order to distinguish between SRCs and ORCs. That is, they must use the accusative marker for the noun phrase in the RC if the head noun phrase is the subject, and they must use the nominative marker for the noun

phrase in the RC if the head noun phrase is the object. This is different from the word order rules that aid them in English. Third, Korean learners may acquire a syntactic structure representing RCs that is similar to but distinct from the English structure. In addition to the directionality and case marking differences between English and Korean, they also show different morphological reflexes of the relativizer to appear. In English, RCs may have an overt relative pronoun instead of an operator, or they may have just the null operator, or they may have a complementizer ('that') all of which are in CP. In Korean, however, there is only one option: having the complementizer 'n' attaching to the end of the verb (although 'n' does have three reflexes corresponding to tense, they would all appear in the C head position in the syntactic representation).

3.1.3 Summary and predictions

To summarize, English and Korean rely on different elements to form both SRCs and ORCs. Specifically, English is right-branching and so the RC head noun phrase is clause-initial. Korean is left-branching and so the RC head noun phrase is clause-final. English employs word order to denote subject and object grammatical functions within the RC, and Korean employs case markers. The syntactic representations of RCs between the languages bear major similarities, and the only real difference is that English has a few variants that speakers may choose from, whereas Korean has only one RC structure that only varies according to tense (which also varies in the English relative clause, but as part of the verb itself instead of the RC complementizer).

The predictable difference between KFLLs and KHLLs is that KHLLs have been exposed to KRCs throughout their lives in the home environment, even if their dominant

language has been English since the onset of schooling. KFLs, however, have only been exposed to KRCs since they were adults, well after their first language was established. Therefore, the prediction pertaining to RC acquisition is that KHLLs should have an advantage in producing and comprehending KRCs, in that they should be able to produce and comprehend them after less formal instruction and do so more accurately than KFLs, even when general proficiency level is controlled for. Specifically, KHLLs should make less errors on head directionality and case marking in KRCs, which are the two principal differences between English and Korean RCs. The assumption is that KHLLs have already at least somewhat acquired the appropriate RC mechanisms (even if they have been acquired imperfectly, or even if they have attrited [Montrul, 2010]). Since English and Korean RCs may plausibly have essentially the same syntactic structures (a head external / operator movement analysis), the only aspects of Korean RCs that learners absolutely need to acquire are the correct assignment for the directionality parameter (Flynn, 1987), and the word order mechanism needs to change to the case marking mechanism.

3.2 Previous research on the foreign and heritage language acquisition of KRCs

The acquisition of RCs in KFL and KHL has been the subject of some previous literature. Most of the research has centered around the acquisition of RCs by KFLs as opposed to KHLLs. Within that literature, a main subject of discussion is if the noun phrase accessibility hierarchy (NPAH; Keenan & Comrie, 1977) applies to the acquisition of RCs in Korean (O'Grady *et al.*, 2003; Eckman, 2007; J Hawkins, 2007; R Hawkins, 2007; Kwon *et al.*, 2010; and Lee-Ellis, 2011). The NPAH was originally introduced as a typological universal that turned

into an acquisition concept. The original observation was that languages that allow relativization of objects, for example, also allow relativization of subjects (but not necessarily vice versa; Keenan & Comrie, 1977). Turned into an acquisitional concept, the idea is that SRCs are easier to acquire and process than ORCs, because SRCs are more frequently allowed cross-linguistically, and object relativization only exists in a language if subject relativization also exists. Experimental findings on the NPAH effect have been mixed (see Lee-Ellis [2011] for a discussion).

Apart from the literature that has focused on the NPAH, some studies have directly focused on comparing KFLs' and KHLLs' KRC acquisition, and they form the foundation for the current study. The following several studies have focused on KHLLs and KFLs as participants in RC acquisition studies. What follows are short summaries of their studies, including their research focus, participants, experimental methodologies, and findings.

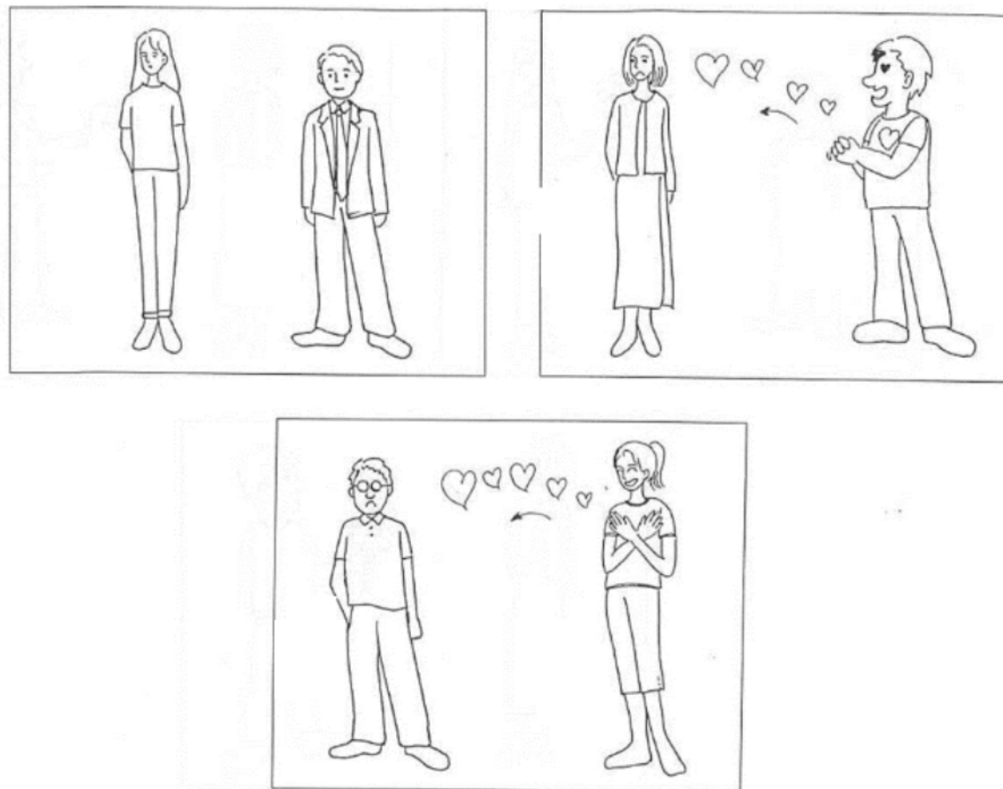
3.2.1 O'Grady, Lee, and Choo (2000; 2001)

The (2001) study focused on how effective KHLLs and KFLs were at using morpho-syntactic clues (case marking) to comprehend RCs in a picture selection task. The participants were 16 KHLLs in an accelerated second-semester Korean course (which they were allowed to enroll in after an assessment interview), 25 KFLs in a second-semester course, and 20 KFLs in a fourth-semester course at an American university.

Participants were given a booklet with several sets of pictures. Each set of pictures contained three drawings, with two figures in each drawing, and a transitive verb evident in the drawings. Each individual figure could be referenced uniquely, that is, the participants should

have been able to choose one figure out of the whole set referenced by an unambiguous relative clause. See the example below in figure (12).

(12) Picture set from O'Grady, Lee, and Choo (2000; 2001)



The participants listened to a tape recording of either an SRC or an ORC for each picture. The SRC or ORC identified only one figure in each picture, and participants had to circle the correct figure. Animacy clues were neutralized; that is, each picture set had only humans or animals so SRCs and ORCs were equally likely to identify any one of the figures in the picture (previous research indicated that SRCs usually pick out humans or animate objects and ORCs usually pick out inanimate objects, and the authors wanted to guard against this bias). There were nineteen phrases tested in total: 8 SRCs, 7 ORCs, and 4 indirect object RCs. Three transitive

verbs were used and distributed among the SRCs and ORCs: 좋아하다 *cohahata* ‘to like’, 싫어하다 *silhehata* ‘to dislike’, and 보다 *pota* ‘to see’. The indirect object RCs all used the verb 주다 *cwuta* ‘to give’. For the example picture above, if the participant heard the recorded phrase “남자를 좋아하는 여자” *namca-lul cohaha-nun yeca* ‘the woman who likes the man’, then the participant would circle the woman in the third picture of the set.

There were two conclusions from this experiment. First, that the KHLLs did not perform statistically significantly better overall than the KFLLs (and both groups made both error types, shown below); second, that all participants performed better overall on interpreting SRCs than on interpreting ORCs (O’Grady *et al.*, 2001). The study also identified two main error types made by participants: reversal errors and head errors. A reversal error is when the participant misinterprets the case marker on the embedded argument and therefore interprets a subject relative clause as a direct object relative clause (or vice versa). An example of this error type is shown in (13) below. A head error is when the participant interprets the embedded argument as the head of the relative clause and the head of the relative clause as the embedded argument, effectively switching the head from its correct phrase-final position to the more English-like but incorrect phrase-initial position. An example of this error type is shown in (14) below.

(13) Reversal error (O’Grady *et al.*, 2001; p. 288)

Correct interpretation:

남자가 좋아하는 여자
 [namca-ka ___ cohaha-nun] yeca
 man-NOM like-PRS woman
 ‘the woman who the man likes’

Erroneous interpretation:

남자를 좋아하는 여자
 [___ namca-lul cohaha-nun] yeca
 [man-ACC like-PRS woman
 ‘the woman who likes the man’

(14) Head error (O’Grady *et al.*, 2001; p. 288)

Correct interpretation:

남자가 좋아하는 여자
relative clause *head*
[namca-ka __ cohaha-nun] yeca
man-NOM like-PRS woman
'the woman who the man likes'

Erroneous interpretation:

남자 좋아하는 여자
head *relative clause*
namca [__ cohaha-nun yeca]
man like-PRS woman
'the man who likes the woman'

O'Grady *et. al.* position their work as the first step in the study of comparing KHLLs' and KFLLs' acquisition of KRCs. The current study expands on this study by adding a production component to it, as other authors did (see the following sections). By testing participants on both comprehension of and production of KRCs, we may obtain a fuller picture of the ease or difficulty for each group. Additionally, the current study adds a group of participants as a control group: participants who grew up with Korean as their first language and who learned English only as a foreign language, and whose dominant language has always been Korean. By adding this group of participants, any particularly difficult questions may be weeded out and a more faithful judgment of the participants' ability, compared to a Korean-dominant language user, may be discerned.

3.2.2 Kim (2004)

This study focused on the extent to which KHLLs and KFLLs use case particles and word order to interpret RCs, similar to O'Grady *et al* (2001). The author was interested in if transfer of word order from English into Korean would affect KHLLs and KFLLs differently. Taking a step further from O'Grady *et al* (2001), the author also categorized participants into

beginning, intermediate, and advanced groups of learners to see if the effects of transfer differed according to proficiency level.

The participants in this experiment were 13 KHLLs, 7 KFLLs, and 5 Korean-dominant speaker control participants. The test group consisted of 8 beginner, 5 intermediate, and 7 advanced learners. The proficiency level was determined by which level of class the learner was attending at university (100-level, 200-level, or 300-level). The experiment was a replication of O'Grady *et al.*'s (2001) picture selection comprehension task, where participants circled an item in a set according to the recorded RC they heard on tape.

In contrast to the findings of O'Grady *et al.* (2001), this study found that KHLLs shared characteristics with both other groups: KFLLs and Korean-dominant speakers. The study identified that KHLLs were like KFLLs in that they did not rely on case markers to differentiate between SRCs and ORCs; both KHLLs and KFLLs made errors in using the case marker to correctly interpret RCs (reversal errors, as described above). However the KHLL participants were like Korean-dominant speakers in that they did not rely on English word order and therefore avoided head errors, which the KFLL participants made (head errors, also called English transfer errors, as described above; Kim, 2004). Similar to O'Grady *et al.*'s (2001) findings, this study found that all groups were more accurate on SRCs than on ORCs. Kim (2004) also concluded that as proficiency increased, total accuracy also increased.

Part of this study's results differ from the results of O'Grady *et al.*'s previous study, and because of this conflict of results the current study endeavors to replicate the same task to provide more data on the question.

3.2.3 Lee-Ellis (2011)

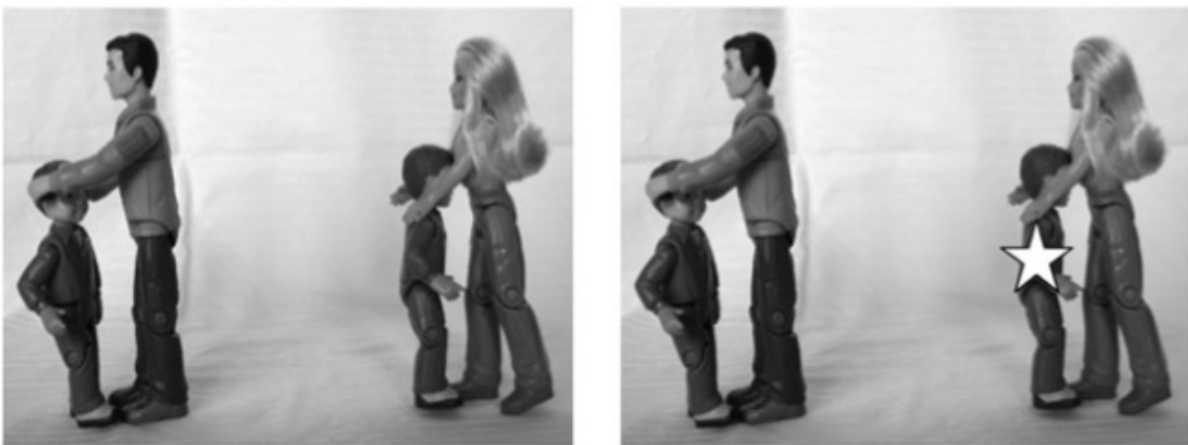
Lee-Ellis' (2011) study differs from other studies discussed above in that it did not compare KHLLs to KFLLs, and it chose to test (oral) production of KRCs instead of (aural) comprehension. Instead, this study used KHLLs as its only test group to study potential NPAH effects, animacy effects, and topicalization effects in production of KRCs (Korean-dominant speakers were also included, serving as a control group). KHLLs were selected over KFLLs as the focus of a production study because they have two potential advantages over the KFLL group: 1) they have been in a Korean-speaking environment since birth, so they have had more exposure to RCs in their input, and 2) they are thought to rely less on explicit/taught knowledge, and more on intuitive/subconscious knowledge, which is desirable for this experiment testing competence and processing.

There were 21 KHLL participants and 13 Korean-dominant speaker controls for this experiment. The KHLLs in this experiment reported speaking Korean 5-40% of the time in current daily life as well as speaking Korean almost exclusively until three or four years old when formal schooling in English began and their dominant language became English. The Korean-dominant speakers in this experiment were all late L2 learners of English enrolled in graduate programs at an American university.

The methodology for this experiment was an oral production task. The materials used were similar but not identical to the materials used in the picture selection task in previously discussed experiments. Instead of hearing a sentence and circling the appropriate referent, participants saw a set of pictures where one figure in the picture was marked with a star. The researcher held a set of the same pictures and told the participant that the researcher's pictures didn't have the star on them. The participant's task was to tell the researcher where the star was

for each set of pictures. So, for each set of pictures, participants answered the question “Where is the star?” and the target answer was an RC construction; the head of the RC was the figure marked by the star, and the noun phrase embedded in the RC would have to be given by the participant in order to disambiguate the answer from other possible answers in the figure set. The stars on the pictures were designed to elicit SRCs or ORCs, in situations with animacy clues or with no animacy clues, and relativizations on topicalizations. An example of a set of pictures appears below.

(15) Example of picture set from Lee-Ellis (2011, p. 66)



The results of the experiment are as follows. At the individual level, participants showed either a subject preference, no preference, or an object preference in formulating RCs. A subject preference (or, advantage) means that the participant was more accurate in forming SRCs over ORCs. The participants with an SRC preference or no preference had higher overall accuracy on the test, whereas the participants with an ORC preference had lower overall accuracy. The

participants with a higher overall accuracy level showed no preference for either SRCs or ORCs in topicalized conditions.

These results mean that the higher overall accuracy on SRCs by all participants found in previous studies (O'Grady *et al.*, 2001; Kim, 2004) in comprehension tasks may not hold for production tasks. Whereas the previous studies found a subject preference in all groups, including in the KHLL group, for this study the KHLL group was mixed and the determining factor for having a subject preference was overall accuracy level on the test. That is, some KHLLs, as well as the Korean-dominant speakers, had a subject preference or no preference (as expected from the results of the previous studies), but other KHLLs actually showed an object preference. Because these results do not match up with previous results, this experiment merits replication. Since this study only tested the subject advantage for a production task, whereas previous studies tested the subject advantage for a comprehension task, the current study aims to reduplicate both experiments together to see if a subject advantage appears across participants when both types of task are tested. The current study will also test both KHLL and KFLL participants, so the two groups may be compared.

3.2.4 Lee (2014)

This study employed a replication of the experimental methodology in O'Grady *et al.* (2001) and subsequently Kim (2004). For this study, Lee focused on the role of accuracy as a controlled variable, which was not discussed in earlier studies. That is, she looked at the overall accuracy on the task by participants and used that as a variable to explain the amount of transfer

(evidenced by transfer errors, also called head errors) between the two participant groups (KHLLs and KFLLs). Like previous experiments, Lee also analyzed the data to look for a gap position effect (if SRCs would be easier than ORCs) and an animacy effect (if animate subjects and inanimate objects were easier to comprehend than vice versa).

The participants in this study were 26 KFLLs and 38 KHLLs, as well as 5 Korean-dominant speakers as a control group. Both the KFLLs and KHLLs were at the beginning level, in the second semester of a Korean course in university. The methodology was an offline comprehension task as explained above in the discussion of O'Grady *et al.* (2001). Beginners were chosen for this experiment because the focus was to see if transfer from English would affect the two groups differently, and transfer tends to affect learning in the initial stages of acquisition (and possibly diminish with further instruction). For the current study, intermediate learners were chosen instead of beginners so as to give the students more time to be exposed to the target structure (relative clauses) and focus on if any difference between KHLLs and KFLLs which may have manifested in the early stages would disappear by the intermediate level.

Although the accuracy scores for both groups indicated that there was a preference for SRCs over ORCs, the result was not statistically significant, so this study failed to find a difference between SRCs and ORCs as was found in previous studies. This study did find an animacy effect; that is, participants were more accurate on test items where the arguments were non-reversible (there was only one sensible interpretation, that the animate figure grammatically functioned as the subject and the inanimate object functioned as the object) compared to test items where the arguments were potentially reversible (both figures were animate or inanimate).

As for the role of accuracy, this study found that English transfer effects (evidenced by head errors) were higher for both KHLLs and KFLLs with low overall accuracy compared to

those with intermediate accuracy. Additionally, the low-accuracy KFLLs produced more head errors than reversal errors, whereas the low-accuracy KHLLs produced more reversal errors than head errors. This means that even though low-accuracy participants across both groups were more affected by English transfer than intermediate- or high-accuracy participants, the low-accuracy KHLLs were less affected by English transfer than the low-accuracy KFLLs, giving evidence that the two groups have different qualities at the low-accuracy level.

To improve on this (and previous studies), the current study will test both production and comprehension of both KHLL and KFLL participant groups (as well as a Korean-dominant control group). This will give a clearer picture of if and how KHLLs have an advantage over KFLLs, which is why I have chosen to focus on both task types.

3.2.5 Summary

The expected finding that KHLLs have an advantage over KFLLs is not clear in the previous literature; Kim (2004) found that KHLLs make the same type of mistakes in comprehending RCs as Korean-dominant speakers do, but O'Grady *et al.* (2001) found that KHLLs and KFLLs made the same types (and amounts) of errors in comprehension. Lee-Ellis (2011), in an elicited (oral) production task, found that KHLLs could be divided into those who displayed an SRC advantage, an ORC advantage, or no advantage, but did not test KFLLs to compare. Lee (2014) grouped participants into groups based on their overall accuracy on a comprehension task, but did not directly compare the KFLL and KHLL participants to each other as whole groups. No study tested both populations' comprehension and production at once. The original study (described in section 3.3 below), and a follow-up study (conducted two years later,

described in Chapter 5) aimed to directly compare KFLL and KHLL participants on both comprehension and production tasks to fill this gap in the previous literature.

3.3 The study: intermediate-level KFLL and KHLL participants

The following subsections present the research questions, participants, methods, results, and discussion for the original study on the acquisition of subject and object RCs⁸ by both KFLLs and KHLLs at an intermediate level of Korean study. A follow-up study, using a slightly modified elicited production task, was conducted two years later and obtained results from several of the same participants from the original study. The results of the follow-up study, including a look at the longitudinal result differences for the participants who took the test both times, are presented in Chapter 5.

3.3.1 Research questions

The current study aims to replicate and extend several aspects of the earlier studies discussed in the previous section. First, there were mixed results from the previous studies; the current study aims to bring more data to bear on the topic of a potential SRC preference (research question 3). Some studies found evidence for an SRC preference (that is, an overall

⁸ The study focuses on subject and object relative clauses only, and leaves relativizations of other positions for future research.

tendency across learners to be more accurate in comprehending or producing SRCs over ORCs; O'Grady *et al.*, 2001; Kim, 2004), and others did not find statistically significant evidence for this (Lee, 2014) or found that an SRC preference was determined by overall accuracy, rather than by belonging to either the KFLL or KHLL group (Lee-Ellis, 2011).

Second, the current study aims to test both production and comprehension on the same set of participants. Since the previous studies used only one task type each (three used the aural comprehension picture-selection task and one used the elicited oral production task) there is no way to compare results of comprehension and production of participants across studies. The hope is that by testing both task types on the same set of participants, a clearer picture will emerge as to if there is an advantage of KHLLs over KFLLs in terms of overall KRC acquisition (research question 1), as well as if there is an advantage of KHLLs over KFLLs in either production, comprehension, or both (research question 2).

The current study is focused on whether or not there is an advantage for KHLLs over KFLLs in the acquisition of KRCs (at the intermediate level). In other words, we are looking for if KHLLs score more accurately than KFLLs on questions testing their acquisition of KRCs. That is, if the KHLL group has higher accuracy on the tasks compared to the KFLL group, since the overall proficiency level of participants has been controlled for, the KHLL group can be said to have an advantage over the KFLL group.

In addition to looking for an advantage overall, the current study includes one production and one comprehension task. So, the results of the study may be broken down more specifically. The KHLLs' accuracy on the production task will be compared to the KFLLs' accuracy on the same task, and the same for the comprehension task. In this way, it will be found if the overall advantage for KHLLs, if one is found, is situated in just the production domain (in this study,

production only includes written, not spoken, production) or in just the comprehension domain (in this study, listening, but not reading) or in both. It is expected that there may be a difference between comprehension and production tasks because the previous study which used a production task (Lee-Ellis, 2011) found different results than the studies which used a comprehension task (O’Grady *et al.*, 2001; Kim, 2004; Lee, 2014) with regards to a subject preference among participants. Since Lee-Ellis (2011) did not test both heritage and non-heritage learners, we do not know if there was also a difference in overall accuracy between the groups, as the other studies did test. So, the current study aims to put both tasks and both groups together to see the bigger picture of comparison between KHLL and KFLL groups and how (if at all) they differ (on task type as well as on relative clause type—SRC or ORC).

Both subject and object relative clauses will be tested in both tasks during the experiment. So, the results of the study may be further broken down by looking specifically at SRCs and ORCs. It will be seen if KHLLs perform differently than KFLLs with regards to SRCs and ORCs. In order to study this issue, the questions on both tasks have been controlled for animacy; either both the subject and object in a picture set are inanimate, or they are animate, and if they are both animate, they will both be animals or both be humans. By leveling the playing field with regards to animacy, there are no clues given as to which noun phrases are more likely to be the subject or object and participants have to rely on correctly interpreting case markers to disambiguate choices.

In summary, the three research questions of the current study are listed below.

- (1) Are KHLLs more accurate than KFLLs in producing and comprehending KRCs at the intermediate level overall?

(2) Are there differences between the two groups' accuracy in production and comprehension?

(3) Are there differences between the two groups' accuracy in SRCs and ORCs?

In answer to the first research question, I expect to not find an overall difference in accuracy across relative clause types and task types comparing KHLLs and KFLLs. I think this will be the case because at the intermediate level any initial advantage in any aspect of the language has had some time to level out. This prediction mainly comes from the finding of O'Grady *et al* (2001) that "...there may be limits to the advantage that heritage learners of Korean have over their fellow students. Although they appear to enjoy a considerable head start in the areas of vocabulary, comprehension, and pronunciation, this advantage seems not to extend to the morphosyntax of the language" (p. 293). However, other studies did find an overall advantage for KHLLs, for example Kim (2004), who found that "...an overall higher score of HL learners (88%) compared to the Non-HL (N) learners (78%) indicates that they have a more near-native command in comprehension skills and familiarity with relative clause structures due to the language exposure from home" (pp. 235-6). These results do not directly predict a result for the current study, however, since these studies only tested comprehension (and not production).

As for the second question, I predict that the KHLLs and KFLLs will do equally well on the production and comprehension tasks, for the same reason that I think they will do equally well overall, as stated above: any initial advantage the KHLLs may have had at the beginning level has had time to even out as the KFLLs have had more explicit instruction (almost two full academic years) compared to the KHLLs (almost one full academic year). However, this is not a

completely confident prediction since KHLLs and KFLLs have never been compared before with regards to production.

With regards to the third question, I do believe that there will be a subject advantage found across both groups (although I do not predict that one group will have more of a subject preference than the other, for example). The subject advantage has been found in previous literature and is backed up by Keenan and Comrie's (1977) NPAH hypothesis, which will manifest as the NPAH effect here, meaning that SRCs are easier to both produce and comprehend compared than ORCs.

3.3.2 Participants

The participants for the current study were recruited from university courses via advertisements and were paid for their participation. The participants are divided into three groups with distinct characteristics. The first group (n=11) consists of KHLLs at the intermediate level. These participants were enrolled in a heritage Korean language class at the large American university at the time of the study. This class differed from the foreign language Korean classes (for KFLLs) by having a more accelerated curriculum, although the class used the same textbooks as the KFLL class. All participants in this group were college age (average age 20, range 18-21). No further matching for proficiency level was done outside of recruiting participants from the same course. This was done to maximize the number of participants per group, without further division into smaller subgroups. All students were placed in this course by passing the previous course in the series or by a placement test to directly enroll without having

completing the previous course in the series. One participant had passed the previous course but was not enrolled in the KHLL course at the time of the survey.

The second group (n=15) consists of KFLLs at the intermediate level. These participants were enrolled in a second year (6th quarter, end of second year) foreign language Korean class at the University of Washington at the time of the study. The instructor for both the KFLL and the KHLL class was the same. All participants in this group were also around college age (average age 21, range 19-32).

The third group of participants (n=5) consists of Korean-dominant speakers. The purpose of having this group is to act as the control on the target answers for the production and comprehension tasks. In other words, if a majority (3/5) of the control group did not give the same answer, the question would have been thrown out and not considered for the analysis. This did not occur, however; although the Korean-dominant speakers did not all achieve 100% on either task, at least 3 out of 5 always provided the expected answer and so all questions were included in the analysis. The average age of the control group was 32, with a range of 27 to 38. These participants did not start learning English until after fully acquiring Korean as a child. They reported starting to learn English while living in Korea from ages ranging from 7 to 14 years old. All of the Korean-dominant speakers lived in the U.S. at the time of the study.

3.3.3 Methods

The current study used an online survey (in Google forms) to collect data from participants. The first section of the online survey consisted of a language background survey

and a Korean self-assessment survey. The language background survey's main purpose was to collect enough relevant information to determine if a participant was a KHLL, a KFLL, or a Korean-dominant speaker, but also asked for the participant's age and a brief language background in the form of a short-answer question. The Korean self-assessment survey asked for the current course the participant was enrolled in (if any) and if the participant considered themselves above, at, or below average in their Korean proficiency compared to their classmates. The questions from this part of the survey are included in Appendix A.

The second section of the online survey was the production task. The design of this part of the experiment was based on the experimental design in Lee-Ellis (2011); however all of the actual materials were novel to this experiment. Participants were given a series of 20 pictures showing several people (or animals, or inanimate objects) illustrated as acting out a transitive verb in each set. The necessary vocabulary to correctly label the people (or animals/objects) and the verb were also given to the participants. On each picture, there was a star on one of the people (animals/objects). The participant's task was to answer the question "Where is the star?" for each picture by filling in the blank in the following sentence: "The star is on the _____". The pictures were set up so that the participant would need to use an RC construction in order to uniquely identify the correct figure in each picture set. The way that participants would answer was by typing in an RC into a text box. The participants were first given two examples using intransitive verbs in RCs.

An example of the production task questions appears in (16) below (question 1). The picture set contains three pictures; in each picture the verb is being acted out differently, that is, in one of the pictures the first figure is the subject and the second is the object, and in another picture the first is the object and the second is the subject. The relevant vocabulary was given

under each picture, and the target question was repeated for each picture as well. A text-entry answer box appeared for each question where the participants could type in their answer. All of the verbs used in the production task were transitive and use the *이/가* ‘i/ka’ nominative case marker particle to mark the subject and the *을/를* ‘ul/lul’ accusative case marker particle to mark the object in Korean. The verbs were chosen to be different than the verbs in the comprehension task so that participants could not use the knowledge from the production task directly in the comprehension task. Both SRC and ORC constructions were tested (10 questions each, in random order). In each picture, the figures involved in the activity were either both humans, both animals, or both inanimate objects. This was to control for animacy; participants could not use relative animacy of the entities to determine which figure should be the head of the RC. The participants were instructed to type in “not sure” if they did not know the answer. The full set of materials used in the production task, as well as the directions for the task, are included in Appendix B.

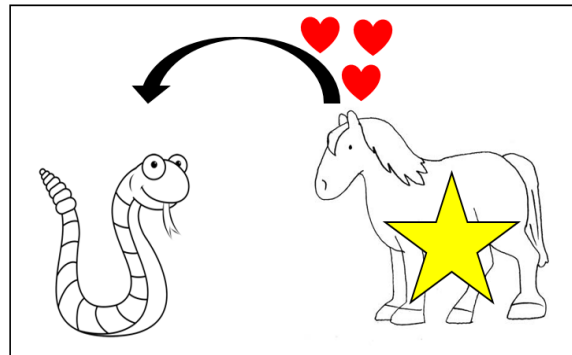
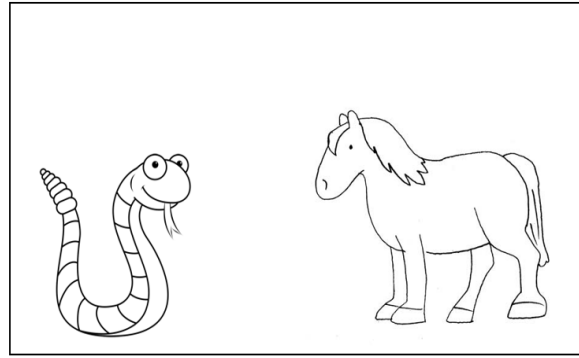
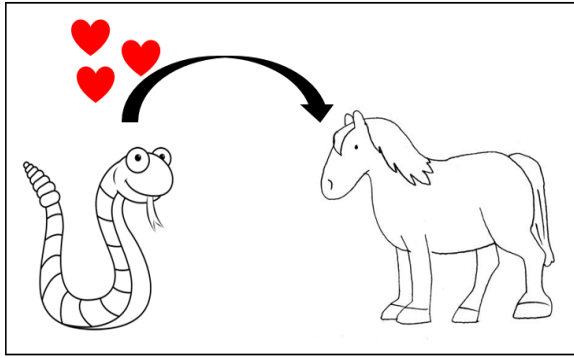
(16) Production task question 1

별이 어디에 있어요?

별은 _____ 위에 있어요.

Vocabulary:

뱀 snake 말 horse 사랑하다 love



The third section of the online survey was the comprehension task. The design of this part of the experiment as well as the materials (picture sets) were the same as O’Grady *et. al.* (2000; 2001; see the example in [17] below). The RC recordings were re-made by a Korean-dominant speaker.

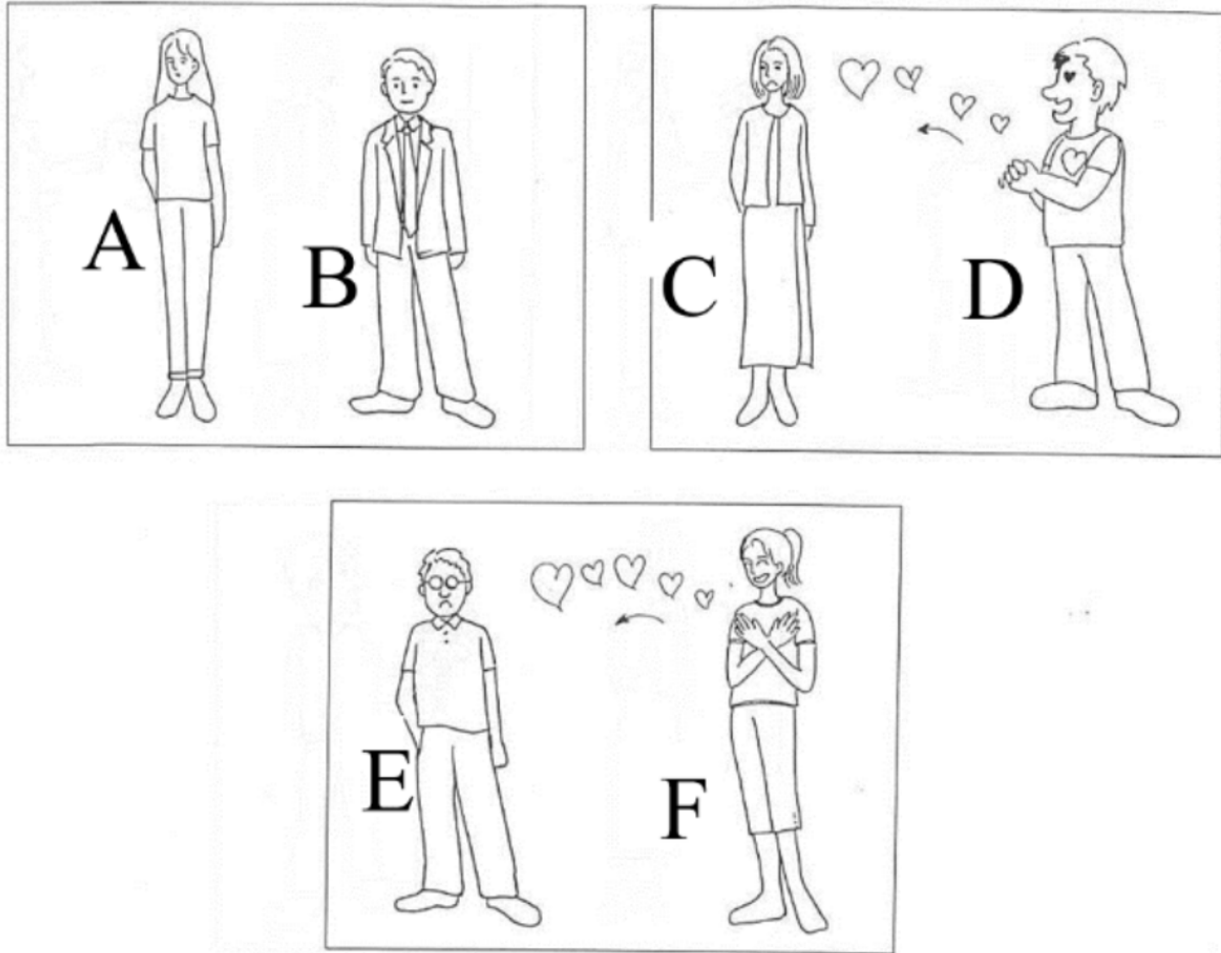
(17) Picture set from O’Grady, Lee, and Choo (2000; 2001); adapted for the current study with letters for multiple-choice answer selection

Vocabulary

남자 man 여자 woman 좋아하다 like

Select one:

A B C D E F Not sure



The picture sets shown to participants contained figures (all animals or all humans, to control for potential animacy effects) and illustrated the figures with relevance to a transitive verb. The vocabulary appropriate to each picture was also given to the participants during this section. The participants were instructed to listen to a recording of a KRC (repeated twice) and choose the one figure in the picture that the KRC picked out. Each KRC corresponded correctly to only one unique figure in the picture. Participants selected their answer from the multiple choice options A-F (the people in the picture were correspondingly labeled) or selected the answer choice “not sure.”

The participants were first given two example questions that gave intransitive verb KRCs to indicate the desired structure to participants without revealing the correct structure using embedded noun phrases. The participants were not required to answer the example questions to continue on in the survey. There were 19 questions, however 4 pictures tested the ditransitive verb give (주다 cwuta, ‘to give’), the results of which were not analyzed. Pictures tested both subject and object relative clauses, and the verbs used in part 3 were different than the verbs used in the preceding production task. See Appendix C for the complete set of comprehension task materials.

3.3.4 Results and discussion

Thirty total participants took both tasks on the online test⁹. The five Korean-dominant participants served as a control group (described above in section 3.3.2) and their results were not analyzed or included below. The two test groups were KHLLs (n = 10) and KFLLs (n = 15). For the production task, there were 20 questions total, divided into SRC targets (10 questions), and ORC targets (10 questions). For the comprehension task, there were 19 questions total. Four questions’ results were not analyzed as they used a ditransitive verb (they were included as distractors). Of the 15 transitive test questions, 8 had SRC targets, and 7 had ORC targets.

Two-sample t-tests were chosen to analyze the statistical significance of the differences in mean accuracies between the KHLL and KFLL groups. One t-test compared the overall mean accuracies, that is, the average score on all test questions, for both groups. Two t-tests compared the groups’ mean accuracies for task types, that is, the average score on just the production task

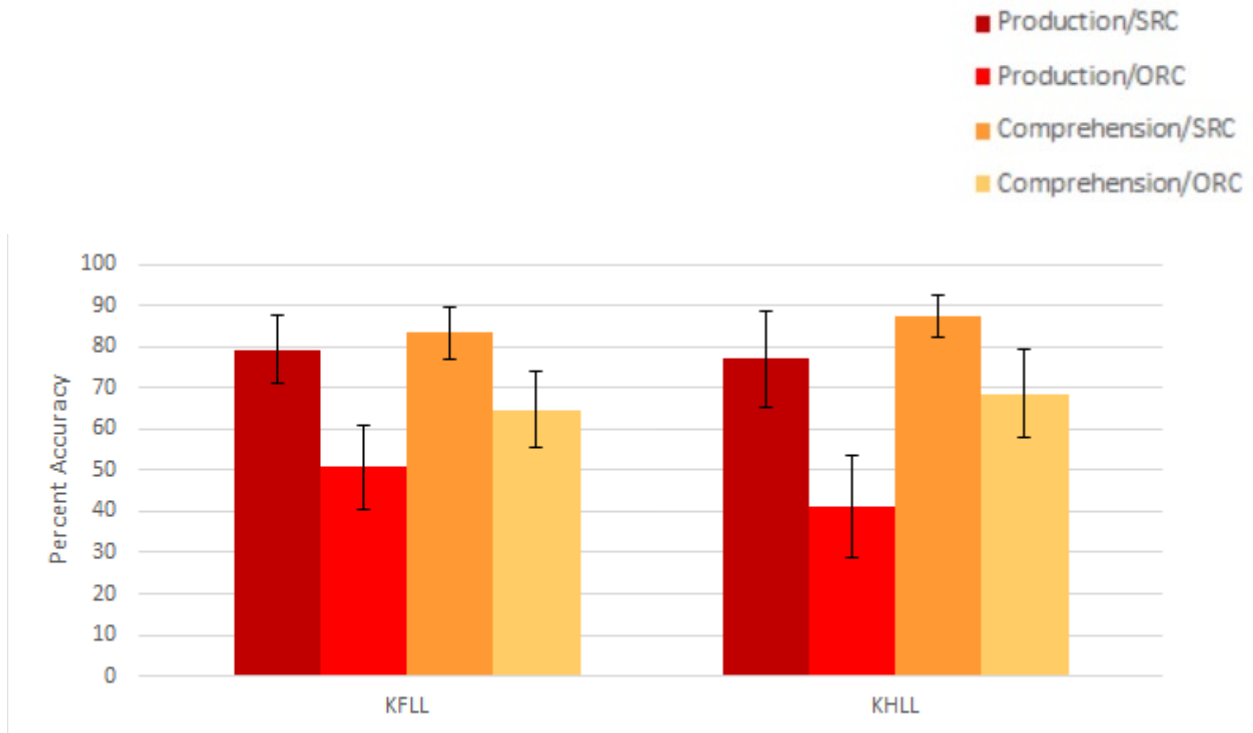
⁹ One additional KHLL participant took the survey, but their answers were not included in the results as it was later revealed by the participant that they had not taken it seriously and just answered randomly.

or just the comprehension task test questions. Finally, two t-tests compared the mean accuracies for clause types between both groups, that is, the average score on just the SRCs or just the ORCs.

None of the t-tests resulted in a statistically significant difference between two means, defined here as having a p value of less than 0.05. In other words, both groups performed relatively similarly on all comparisons: overall accuracy, production task only, comprehension task only, SRCs only, and ORCs only. Additionally, all participants, on average, performed similarly accurately on both the production and comprehension tasks, although there was a trend for participants to perform better on the comprehension task. There was one statistically significant result: all participants, on average, performed better on SRCs than ORCs (across tasks).

A chart of the results of the survey, broken down into participant groups' percent accuracy on the four question types (production SRCs, production ORCs, comprehension SRCs, and comprehension ORCs) and showing standard error bars, is given below in figure (18). The table in (19) below shows the descriptive statistics for the same. Below the chart broken down by group are summary charts presenting the same results, but broken down by question type for ease of comparison between the two participant groups (20). Results and discussion broken down by research question follow.

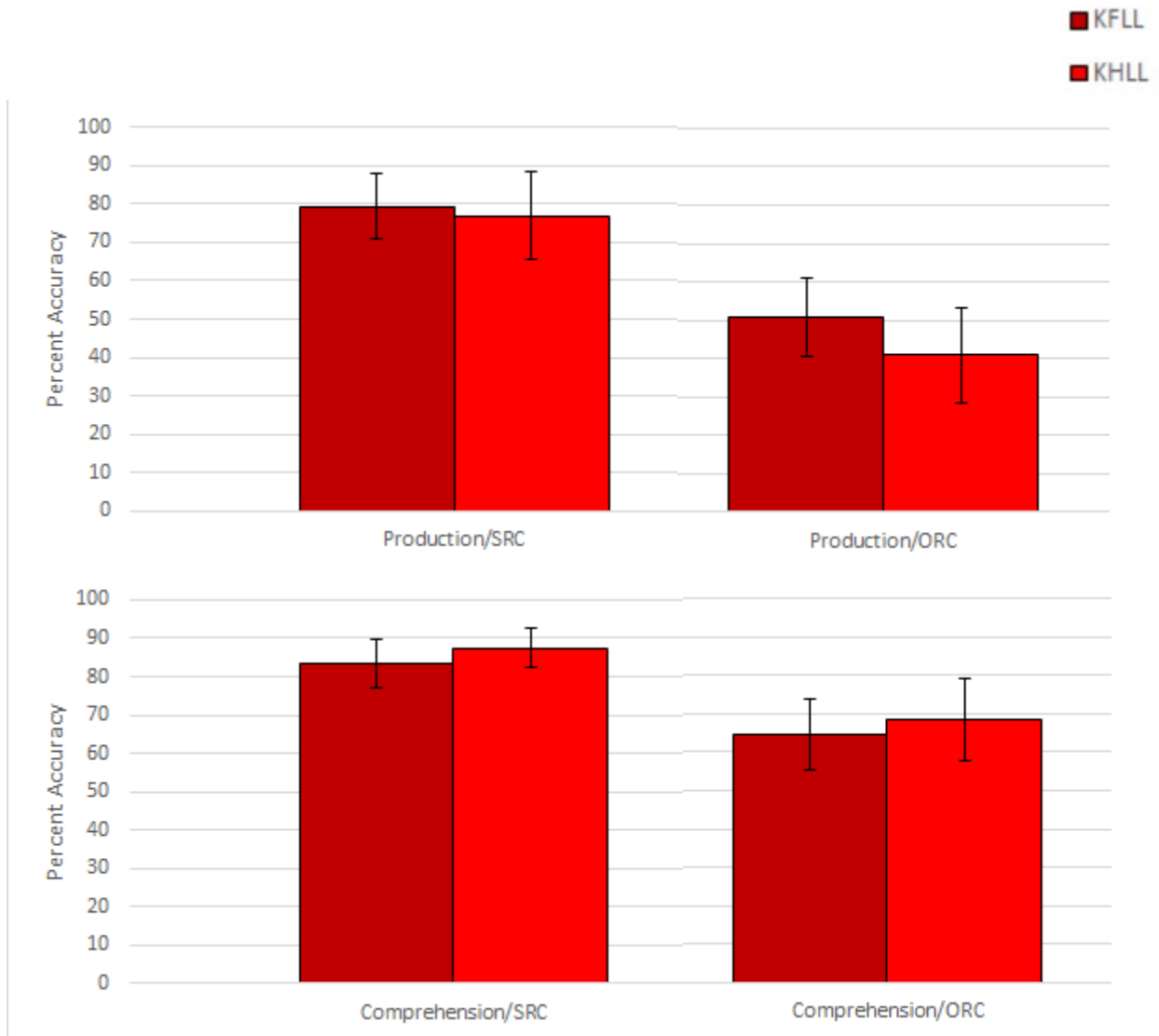
(18) Accuracy on all question types (task type and RC target type), by group



(19). Table showing results broken down by group and question type (task and RC type)

group	task type	rc type	mean	sd	median	min	max
KFL (n = 15)	Production	SRC	79.33	32.55	90.00	0.00	100.00
	Production	ORC	50.67	39.41	60.00	0.00	100.00
	Comprehension	SRC	83.33	24.01	100.00	25.00	100.00
	Comprehension	ORC	64.76	35.71	85.71	0.00	100.00
KHLL (n = 10)	Production	SRC	77.00	36.62	95.00	0.00	100.00
	Production	ORC	41.00	39.10	40.00	0.00	100.00
	Comprehension	SRC	87.50	15.81	93.75	50.00	100.00
	Comprehension	ORC	68.57	33.69	78.57	0.00	100.00

(20). Accuracy on all question types (task type and RC target type), by question type

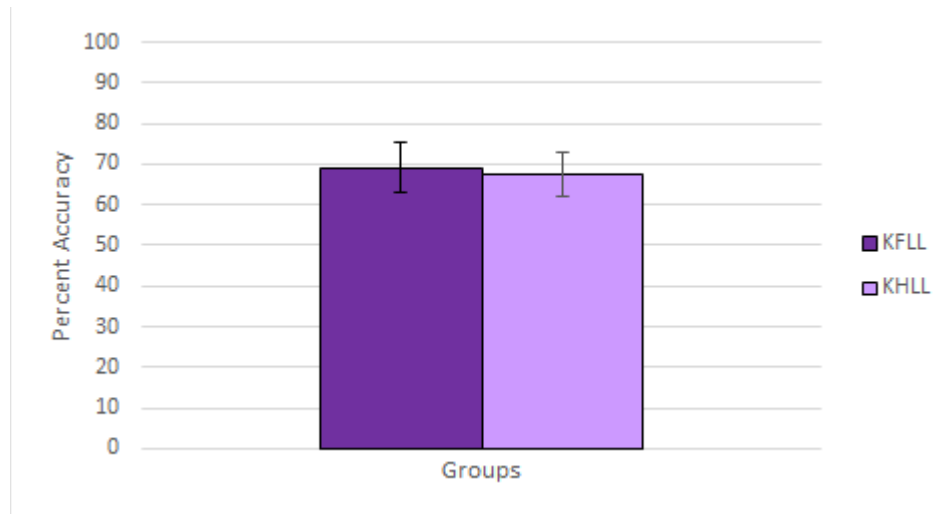


3.3.4.1 Research question 1

(1) Are KHLLs more accurate than KFLs in producing and comprehending KRCs at the intermediate level?

The figure in (21) below shows the total average percent correct for all 35 survey questions (20 questions on the production task and 15 questions on the comprehension task) across groups and (22) gives the standard deviation, median, min and max scores for each group.

(21) Total accuracy (includes both production and comprehension task results) for both groups



(22) Descriptive statistics for total accuracy scores by group

Group	<i>n</i>	mean	sd	median	min	max
KFL	15	69.14	23.98	68.57	22.86	97.14
KHLL	10	67.43	16.77	64.29	42.86	97.14

The prediction for the first research question was that there would not be an overall accuracy difference between KHLLs and KFLs because the participants are at an intermediate proficiency level and so any initial advantage heritage learners may have had at the beginning level in the acquisition of morpho-syntax may have disappeared (O’Grady *et al.*, 2001).

Although the means of the total accuracy for both test groups differed slightly (67.43% for KHLLs and 69.14% for KFLs), the analysis failed to find statistical significance ($p = 0.8523$) and so it may be concluded that there is no statistically significant difference in the total

accuracy between these two groups. This is in line with the prediction made and means that at the intermediate level, KHLLs may not have an advantage over KFLLs in written production and aural comprehension of externally-headed KRCs.

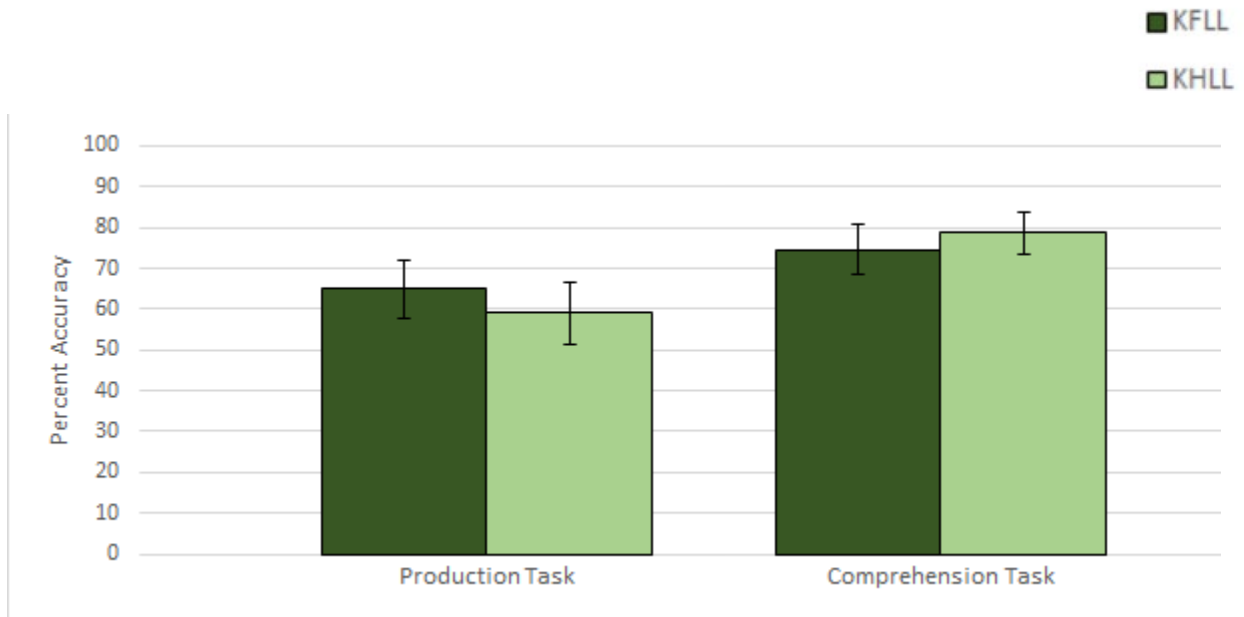
Although the means are not statistically significantly different from each other, the mean for the KFLL group is slightly higher than the mean for the KHLL group. This may be because the test is similar to other classroom tasks, which KFLLs had more experience with (2 years of learning in a classroom setting, compared to KHLLs' 1 year). For more discussion of this limitation and other methodological limitations, see section 3.4.2 below.

3.3.4.2 Research question 2

- (2) Are there differences between the two groups' accuracy in production and comprehension?

The survey questions were split by task: written (typed) production (20 questions), and aural comprehension (15 questions). For each group, the absolute accuracy on production and comprehension tasks were calculated as a percentage. (23) below shows the accuracy for each group broken down by task. (24) below gives the mean, standard deviation, median, min, and max scores for each group by task type.

(23) Accuracy on production and comprehension tasks by group



(24) Descriptive statistics for task accuracy scores across groups

group	task type	mean	sd	median	min	max
KFL	Production	65.00	27.45	55.00	0.00	100.00
(n = 15)	Comprehension	74.67	24.12	86.67	20.00	100.00
KHL	Production	59.00	24.47	55.00	5.00	95.00
(n = 10)	Comprehension	78.67	16.81	80.00	53.33	100.00

For the comprehension task, answers were marked correct if the multiple choice letter chosen corresponded to the expected answer (the answer given by a majority of the Korean-dominant participants). For the production task, untarget-like answers required further analysis; mistakes on items not crucial to the replication of the target RC structure were ignored. The list of errors on the left hand side of (25) below were ignored, and if a participant made an error of any of these types, but had an otherwise target-like RC, their answer was counted as correct. The

list of errors on the right hand side were deemed crucial errors and responses with these errors were counted as incorrect.

(25) Error types and non-errors for production task responses

Non-errors	Errors
<ul style="list-style-type: none"> ● No case marker on the embedded argument in SRCs¹⁰ ● No embedded argument in SRCs¹¹ ● Incorrect spacing ● Incorrect spelling (as long as the incorrectly spelt word can be made out) ● Incorrect form of the relative clause marker (는, 은, ㄴ, 을, or ㄷ) but in the correct place ● Addition of the progressive construction V-고 있다 between the verb and the relative marker ● Addition of other constructions that supplement the necessary relative clause construction but do not obscure a target-like RC construction (e.g. noun phrase + case marker + 위해 ‘uihay’) ● Case marking included on the head noun phrase argument ● Replacing the verb with another transitive verb that accurately describes the picture ● Replacing one case marker allomorph for the other (the subject case marker allomorphs 이 ‘i’ for 가 ‘ka’ or vice versa, or the object case marker allomorphs 을 ‘ul’ for 를 ‘lul’ or vice versa) 	<ul style="list-style-type: none"> ● No case marker on the embedded argument in ORCs ● No embedded argument in ORCs ● Incorrect case marker on the embedded argument (the use of the nominative case marker 이/가 ‘i/ka’ instead of the accusative case marker 을/를 ‘ul/lul’ or vice versa, which is a reversal error, or the use of another marker without the addition of the correct one, e.g. locative 에 ‘ey’, 한테(서) ‘hanthey(se)’, 이랑 ‘ilang’, etc.) ● Extra embedded argument ● Reversed embedded argument and head argument (whether the case markers were correct or incorrect; which is a head error), or the same argument repeated as both the embedded and head argument ● No head argument ● Extra head argument ● Addition of extra constructions, or incorrect constructions, that obscure a target-like answer ● No attempt at relative clause construction ● Typed in “not sure”

¹⁰ Korean allows for dropping the case marker on the embedded argument in an SRC, especially in informal contexts (which KHLLs have been more exposed to) and/or when the contextual role of the argument is understood. It is ungrammatical to drop the case marker on an embedded argument in an ORC.

¹¹ Korean allows for dropping the embedded argument in SRCs, especially in informal contexts (which KHLLs have been more exposed to) and/or when the argument is understood from context. It is ungrammatical to drop the embedded argument in an ORC.

The prediction for the second research question was that there would not be a difference between production and comprehension for the two groups, for the same reason as there would be no overall difference: that any initial advantage the KHLLs may have had would have leveled out. However, since both production and comprehension have not been tested on the same group of participants before, this prediction was not an extremely confident one.

The results of the two t-tests for task type showed that there was no statistically significant difference between the mean accuracies of the two groups on either the production task questions or the comprehension task questions. This means that both groups performed equally well as each other on both tasks, statistically speaking, and this is in line with the prediction made above that KHLLs would not have an advantage over KFLLs on this type of construction at the intermediate level.

Participants also did not show a difference on task type on an individual basis ($p = 0.29$). That is, on average, participants performed equally well on both the production and comprehension tasks. However, as can be seen in the chart above, there was an overall trend for individual participants to perform better on the comprehension task.

3.3.4.3 Research question 3

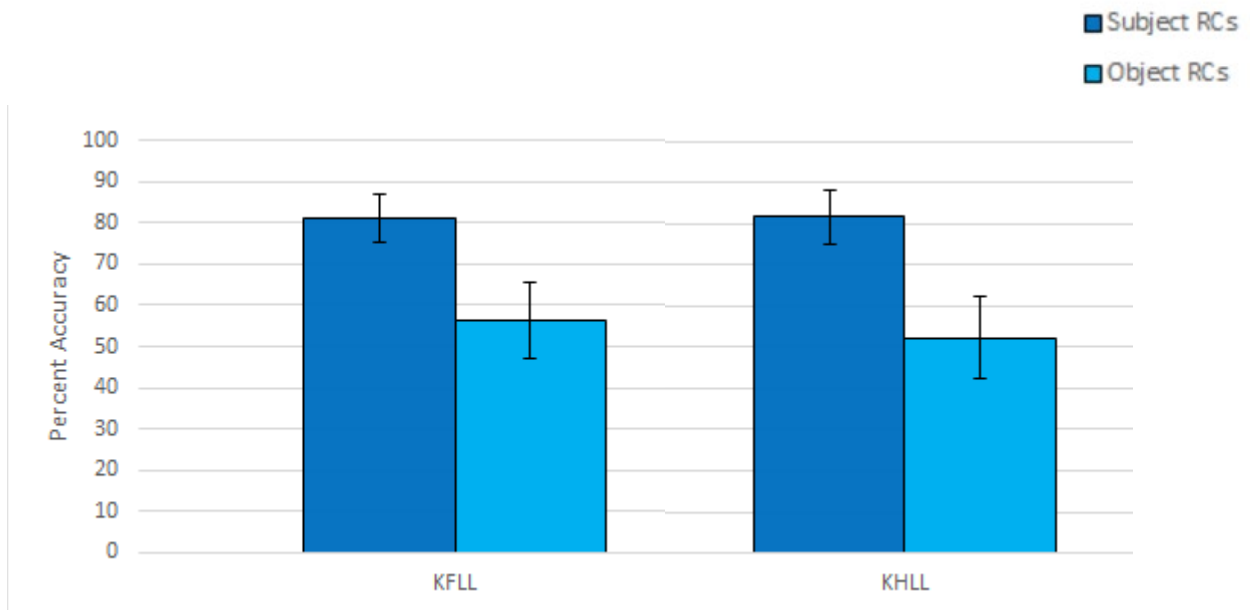
(3) Are there differences between the two groups' accuracy in SRCs and ORCs?

The survey questions were also split by relative clause type: the target answer (for the production task) or the audio stimulus (for the comprehension task) could be either a subject relative clause (SRC) or an object relative clause (ORC). In the production task, 10 questions targeted SRCs and 10 targeted ORCs. In the comprehension task, 8 questions targeted SRCs and

7 targeted ORCs. Total, 18 questions targeted SRCs and 17 questions targeted ORCs within the entire survey.

(26) below displays the total accuracy per group by clause type, and (27) below gives the descriptive statistics for the same. Total accuracy combines both production and comprehension, so (26) below shows how each group performed on 18 total SRCs and 17 total ORCs.

(26) Clause type accuracy across groups



(27) Descriptive statistics for clause type accuracy scores across groups

group	RC type	mean	sd	median	min	max
KFL	SRC	81.11	23.29	88.89	16.67	100.00
(n = 15)	ORC	56.47	36.25	64.71	0.00	100.00
KHLL	SRC	81.67	20.50	86.11	44.44	100.00
(n = 10)	ORC	52.35	31.18	50.00	5.88	94.12

The prediction for the third research question was that there would be a difference between accuracy on subject relative clauses vs. object relative clauses for both test groups. This

prediction conforms to the NPAH effect (Gass, 1983) which hypothesizes that the cross-linguistically more common relative clause types (such as subject relative clauses) are easier to produce and comprehend than the less common types (such as the object relative clauses). This experiment only tested subject and object relative clauses even though Korean does relativize other types of arguments; further investigation into the relative ease of relativization for non-subject and non-object arguments is left to further research.

The results for SRC scores vs. ORC scores revealed that the two groups of learners showed comparable performance (in other words, KFLLs and KHLLs performed about the same on SRCs, and they also performed about the same on ORCs; the SRC mean accuracies comparison resulted in $p = 0.95$ and the ORC mean accuracies comparison resulted in $p = 0.78$). The difference between the average SRC score and the average ORC score for all participants was significant, however ($p = 0.0002$). All participants, on average, performed more accurately on SRCs compared to ORCs. This finding is in line with previous research on the NPAH effect, showing that RC types that are higher on the relative clause hierarchy are more easily acquired (Gass, 1983).

3.3.5 Summary

The results of the statistical analysis for the three research questions presented in the current study can be summed up as follows: 1) KHLLs and KFLLs do not differ in overall accuracy at the intermediate level for the morphosyntax of KRCs, 2) learners across both groups are better at comprehension than production of relative clauses, and 3) although on average all participants were more accurate on SRCs over ORCs, neither KHLLs or KFLLs were more accurate than the other on particular clause types. Further analysis is required to determine the

types of errors made by each group and whether generalizations about types of errors can be made based on KHLL or KFLL group status.

3.4 Limitations

There are several ways in which the results obtained from the current study may be considered limited, by being either not directly comparable to similar previous studies, by favoring one test group over the other with the types of tasks, or by using an inadequate task design. First, the current study was conducted online, but similar previous studies were conducted in person. Second, the production task was written, not spoken, which favors KFLLs as a group because the KFLLs in this study had more training and experience in writing, whereas the KHLLs had more experience in spoken production of Korean.¹² Third, some participant responses to the production task were counted as incorrect because they failed to use a KRC, but the answers were technically correct, which represents a limitation in the production task design. The sections below discuss these limitations in more detail.

3.4.1 Online survey

One of the drawbacks of the methodology used in the current study was that it was an online survey. Typically, in-person surveys are used to collect data for this type of research and that may have some benefits: it minimizes distractions for participants, it pressures the participants to do well since they are being observed in-person by the investigator, and the

¹² Another possible limitation may be that the comprehension task was based on listening (rather than reading), which may have favored KHLLs over KFLLs. However the difference between listening and reading skills in KHLLs and KFLLs is less clearly defined than the difference between writing and speaking skills, so it is not discussed here.

investigator has the chance to read the directions to the participants to ensure they know them (which encourages the participants to follow the directions closely).

The online survey, however, cannot replicate those conditions. By its nature, the investigator cannot ensure that the participants are paying attention, or that they have read the directions. Additionally, since the investigator is not present there is no incentive for the participant to take their time on the survey; they may just choose to click through the questions or type short answers without any effort to be correct.

One piece of evidence that lends support to this description of the online survey is the performance of Korean-dominant speakers on the survey. Whereas in previous studies it was found that all Korean-dominant speakers in the control group reached 100% accuracy on the given task, that was not the case for the current study. Although it was never the case that a majority of the Korean-dominant speakers gave non-targetlike responses on any question, there were several questions where one or two of the five Korean-dominant speakers gave non-targetlike responses. I do not think this is because there are correct (but non-targetlike) possible responses, but rather that the Korean-dominant speakers may have not paid close enough attention to the task at hand and simply made errors that they would have corrected if they had taken more time to complete the survey (the Korean-dominant speakers reported that the survey didn't take long at all, and that it was easy).

Another piece of evidence that there are flaws to the online method is from participants not following directions. Although even in an in-person survey participants may choose not to follow directions (especially if they come up with a response that they think is correct but doesn't fit the directions, or if they cannot think of a response that follows the directions), I think the effect may be exacerbated by the online method. This may be because participants skip the

directions page, or simply skim it, whereas in person the investigator has the chance to read the directions to the participant (ensuring they have at least heard them) and the participant therefore must reflect on them. However in the online survey participants used vocabulary that was not listed, although the directions told them not to do so, for example.

However, the online method can potentially improve upon the traditional in-person method in at least one way: the number of participants can potentially grow. The online method means that anyone, no matter where they are geographically situated, can take the survey, and therefore the number of participants may easily rise. Additionally, it is often easy to convert a survey traditionally done on paper to the online survey format. In this way, I propose that the online method be used for future research to widen the field of participants for language acquisition research.

3.4.2 Written production task

A drawback of the written (in this case, typed) production task is that typos cannot be corrected for. Although this may also be a problem for in-person surveys where spelling errors cannot be corrected for, I think participants are even more inattentive when typing, especially in a language that they are not used to typing in. For example, if a participant typed possessive *의* ‘ui’ instead of the nominative case marker *이* ‘i’ (which is only one keystroke off), then their answer was non-targetlike. Unfortunately, since this is the nature of having an online survey, I do not see a way in which this disadvantage can be immediately improved upon.

A more worrying drawback of the written production task is that it does not capture the actual production capabilities of certain participants because it is a *written* production task rather

than a *spoken* production task. A written task favors participants who have had more practice in written production than others. This potentially captures the difference between the average profile of a KFLL and a KHLL at the intermediate level; while KFLLs have typically had more time in an instructed setting and more instruction in writing, KHLLs need less time in an instructed setting to reach the intermediate level and have typically had more practice in spoken production (for example, communication with family members at home is more often done using speech).

A related drawback to the production task being written is that a written task is a more formal task than a spoken task, and participants who have been comparatively more exposed to a formal learning environment (e.g. classrooms), as most KFLL participants are, would have an advantage over those who have been comparatively more exposed to an informal learning environment (e.g. at-home conversation with family), as most KHLL participants are. A written production task resembles a textbook-like exercise, which KFLL participants may be much more comfortable performing, as compared to KHLL participants who have been in a formal classroom setting for comparatively less time in order to reach the intermediate level of proficiency. Furthermore, elicitation of KRCs is not an authentic communication task, and the survey requires that 20 KRCs be produced in a row. The structured nature of the elicited production task, again, favors KFLL students' experiences.

3.4.3 Technically correct answers without a transitive KRC

The written production task prompt asked participants to identify one figure in a picture set, and the example sentences to demonstrate the target responses used intransitive verbs (in order to avoid participants copying correct answers). Some participants then answered the test

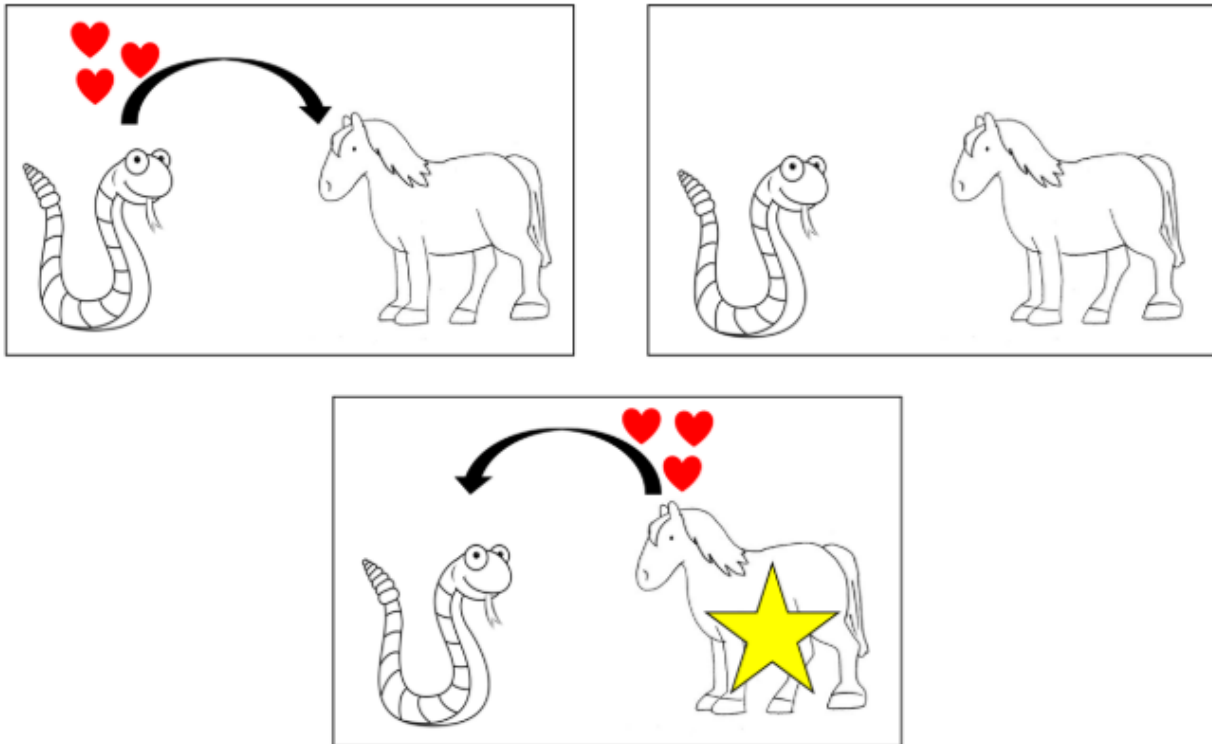
questions with intransitive KRCs, just like the demonstration examples. These responses were technically correct, and actually demonstrated (potential) knowledge of the ability in Korean to drop embedded arguments and/or embedded argument case markers when they are understood in context, or in informal environments. These answers were counted as correct for the purposes of statistical analysis, but it is ambiguous whether the participants answered in such a way because they had knowledge of the grammaticality of dropped arguments/case markers, or because they could not form a grammatical KRC (that is, they should have been counted as incorrect).

For example, since there were multiple women (or men, pigs, dogs, etc.) in each picture set, an answer like ‘the star is on the woman’ would be inadequate to identify which woman the star was on. Even though the inclusion of multiple figures in the picture sets was designed to elicit an RC structure, there were possible correct answers that did not include one. For example, the embedded object of SRCs was not needed in order to produce a correct answer (that is, an answer that uniquely identified a figure in the picture set). The picture sets included three pictures (for example): 1) a man punching a woman, 2) a woman punching a man, and 3) nobody punching anyone. If the star was on the man punching a woman, the desired correct answer was that the star is on 여자를 때리는 남자 ‘yeca-lul ttayli-nun namca’ (*the man who punches a woman*); however, an answer of 때리는 남자 ‘ttayli-nun namca’ (*the man who punches*) is correct because it uniquely identifies one figure in the set, even though it does not demonstrate that the participant has knowledge of embedded arguments or case markings in KRCs.

3.5 Further research

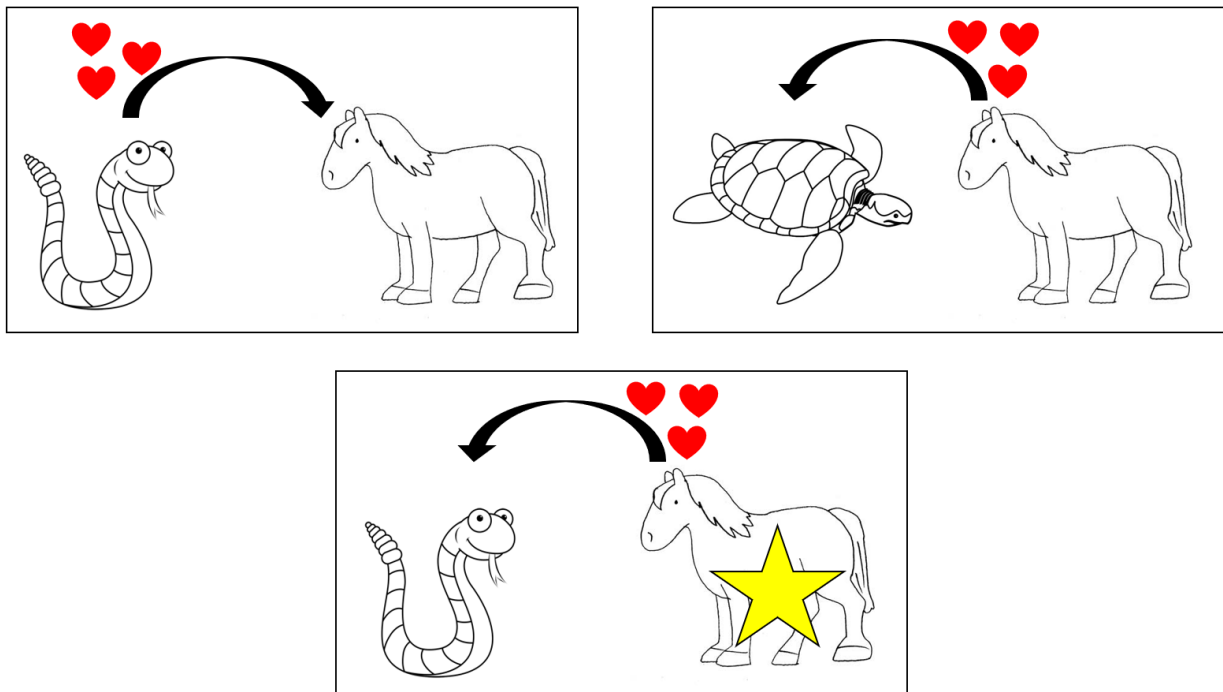
To improve on the methodology of the current study, I would make two changes to the current materials. First, the picture sets in the elicited production task should be changed so that the elicited RC would need to include an overt embedded object argument in order to disambiguate between two possible referents in the set. For example, with the picture set below in (28), the elicited RC could be given as either 뱀을 사랑하는 말 paym-ul salangha-nun mal ‘the horse who loves the snake’ or as simply 사랑하는 말 salangha-nun mal ‘the horse who loves (something)’ (with the embedded object argument dropped, as is allowed in conversational Korean). Since there is no other horse that is the subject of the verb ‘love’, the RC with the dropped object argument is correct and it uniquely identifies one figure in the picture set.

(28) SRC: 뱀을 사랑하는 말 paym-ul salangha-nun mal ‘the horse who loves the snake’



The improvement would be to make picture sets where the droppable embedded object argument would need to be articulated in order to disambiguate between two possible referents. (In the current study, RC constructions made by participants that dropped the embedded argument were counted as incorrect, so this may have affected the statistical analysis.) So, in the picture set below in (29) for example, the elicited RC 사랑하는 말 salangha-nun mal ‘the horse who loves (something)’ does not uniquely identify the horse with the star, as the other horse is also 사랑하는 말 salangha-nun mal ‘the horse who loves (something)’. Therefore, the participants would need to articulate the embedded object 뱀을 paym-ul ‘snake (ACC)’ and give the full RC structure 뱀을 사랑하는 말 paym-ul salangha-nun mal ‘the horse who loves the snake’ in order to eliminate the possibility of referring to the other horse (거북을 사랑하는 말 kepwuk-ul salangha-nun mal ‘the horse who loves the turtle’).

(29)



Only the picture sets which elicit SRCs need to be changed, as in ORC contexts it is ungrammatical to drop the embedded subject argument. There is, however, a further problem of dropping, that is, having the option to drop the object case marker (을/를 -ul/-lul) but still pronounce the embedded object noun phrase itself. This cannot be ameliorated by changing the picture sets; we must rely on the participants following the directions of the task in order to reduce or eliminate case marker drop if the participants must construct the RCs themselves. Another way to eliminate case marker drop would be to give the participants a multiple choice of RCs for each picture set and have them simply choose the correct RC (rather than constructing the RC themselves; see Chapter 5 for a discussion of this change for the follow-up study).

The second improvement to the materials for further research would be to include an oral production task in addition to the written production task. As discussed above, the written production task perhaps gives an advantage to KFLLs and a disadvantage to KHLLs to score well, based on the typical background profiles of these two groups. Having an oral production task in addition would help to compare results and see if, indeed, KFLLs tend to perform better on written production and KHLLs tend to perform better on oral production, for example.

In addition to the improvements to the materials for the current study, one item remains for further research. The results obtained and discussed for the current study's research questions are only the starting point of analysis for this data. To further analyze the data, we need to classify the errors made by participants as either head errors or reversal errors (as defined by O'Grady *et al.* [2000, 2001]) or possibly other error types as well. The question then would become who tended to make which error types, either splitting the participants into background groups (KHLL or KFLL) or, if more data were obtained from participants with varying proficiency levels, perhaps splitting the participants into proficiency level groups (all participants

for the current study were intermediate level, but additional participants could be beginning or advanced). More data could be collected as well, to determine if the type of error type a participant tended to make depended on another factor besides background group or proficiency level.

3.6 Summary

This chapter introduced the structure of Korean and English RCs, focusing especially on the differences between the two and what English-speaking learners of Korean (both KFLLs and KHLLs) would need to acquire in order to produce and comprehend grammatical KRCs. Some previous studies that tested various aspects of KRCs for various Korean-learning populations were summarized. A current study that extended previous research by 1) testing both KFLLs and KHLLs in the same study, and 2) testing both production and comprehension of KRCs in the same study, was proposed.

The current study tested both KFLLs and KHLLs at intermediate-level Korean language classes at a large American university with two online tasks: 1) a written production task, where participants typed KRCs to identify figures within a picture set, and 2) a listening comprehension task, where participants chose the letter of the figure in a picture set that was identified by a KRC they heard. The results found that the overall accuracy between the two groups, across all questions, was statistically similar, leading to the conclusion that, at the intermediate level, KHLLs do not have a distinct advantage in producing and comprehending KRCs as compared to KFLLs. The two participant groups were also statistically similar in their accuracy scores when the questions were broken down by task type (production and comprehension) and question type (SRCs and ORCs). All participants, on average, performed better on SRCs than on ORCs. The

primary limitations of the study were 1) the online format, which differed from previous studies that tested participants in person, 2) the written production task format, which may have favored KFLLs over KHLLs, and 3) the design of the written production task, in that participants may have correctly answered the prompt without providing a KRC. Several improvements to the study for future research were discussed.

The following chapter (Chapter 4) introduces and discusses the qualitative aspect of studying Korean learners' identities and investment using Individual Networks of Practice (INoPs) as the basis of investigation along with several extensions of that original idea. The subsequent chapter (Chapter 5) brings together both the quantitative aspect of studying Korean learners' acquisition (of a syntactic construction) with the qualitative aspect of studying Korean learners' identities and investment in order to learn more about Korean learners' journeys over time as a whole.

Chapter 4. Korean learners' individual networks of practice (INoPs)

Chapter 4 introduces semi-structured qualitative interviews to investigate Korean learners' Individual Networks of Practice (INoPs) as a methodology to assess learners' investment in Korean learning. Along with the quantitatively-based experiment on syntactic acquisition in Chapter 3, the experimental methods presented in this chapter form the basis of the investigation into KFLLs' and KHLLs' Korean-learning journeys in Chapter 5. The study in this chapter gives general findings about the INoPs of both KFLL and KHLL participants, but presents detailed results only for two KFLLs. However the methodology was expanded to investigate the Korean-learning journeys of both KFLLs and KHLLs in Chapter 5.

The rest of the chapter is laid out into four sections. In section 4.1, I review literature related to INoPs and relevant, related topics. I also include a discussion of how the current study uses INoPs differently than previous studies have, and lay out a description of the key differences in use. The next section, 4.2, presents the current study, which uses semi-qualitative interviews to broadly investigate intermediate-level Korean learners' learner identities and Korean language investment through INoPs. In section 4.3, I discuss the results from the current study and give some conclusions. Section 4.4 summarizes the chapter and transitions to the next.

4.1 Previous research related to INoPs and innovations for new research

Social networks in second language acquisition research give an overall picture of the learner in their social contexts, and therefore touch on crucial aspects of language learning that are revealed through the learner's network. Several aspects of language learning have been identified as relevant to the learner's experience and progressing proficiency. These include

motivation, type of interlocutor, identity and investment, and others¹³. Below I detail how each of these have been considered as important to language learning, and also how looking at learners' social networks may be able to shed further light on them.

One of the most studied individual characteristics that has some bearing on a learner's second language acquisition is motivation. Motivation is crucial to second language acquisition and learners who are able to sustain their motivation over a long time of learning have the potential to be successful (Ohta, 1996). One factor that may influence motivation is the learner's need to speak the language in a variety of situations or to achieve personal goals, and another factor is the learner's attitude toward other language users and the language community (Lightbown & Spada, 2013). Traditionally, motivation has been characterized as a stable trait; the learner is either motivated or unmotivated to learn. The learner has instrumental motivation if they want to fulfil personal goals by using the language, and the learner has integrative motivation if they want to have contact with speakers of the language and experience personal growth (Gardner & Lambert, 1972). More recently, motivation has been regarded as a dynamic process, where learners go through stages of different types of motivation over the course of time and experience with learning the language (Dörnyei, 2001). Looking at learners' social networks can shed light on the nature of motivation and how learners' motivation plays into their social relationships and progressing linguistic proficiency. Research may be able to determine the learner's type or stage of motivation based on the types of groups they belong to, the types of resources they choose to use, or the types of people they interact with surrounding the target

¹³ Another aspect traditionally cited as important to language learning is learning style; I will omit discussion of learning style here as the concept has not usually incorporated consideration of how learning styles should not be seen as categories of learners but instead as nuanced and shaped by learners' environments and difference spaces.

language. Therefore, studying social networks can be important in the study of learners' motivation.

Another aspect of language learning is the type of interlocutor a language learner can interact with when using the language. Particularly, four broad types of interlocutors are: 1) native speakers of the target language, 2) non-native speakers of the target language, 3) experts in the particular learning environment, and 4) newcomers to the particular learning environment. Native speakers can be defined as “the first language a human being learns to speak is his *native language*; he is a *native speaker* of this language” (Bloomfield, 1933; p. 43), but for a thorough discussion of the definition of the term native speaker and its problems, see Cook (1999; pp. 185-8). Experts, on the other hand, are people who have been socialized into the appropriate environment for substantially longer than the learner themselves, as viewed by the learner. Native speakers are not necessarily experts, and experts are not necessarily speakers, but looking at the presence of both categories in learners' social networks brings greater understanding of the type of input the learner is receiving and which types of relationships the learner has or seeks out within their network. Input from different types of sources can impact the learner's attitudes, motivation, and proficiency. For example, periphery speakers may make better English instructors than native speakers, for a variety of reasons, among which is that “the use and awareness of other dialects/languages can help a person facilitate the process of second language acquisition (SLA) much better” (Canagarajah, 1999: 80). Studies of social networks will make the types of interlocutors that learners are interacting with much more clearly visible, and are therefore potentially very important in furthering research on types of input for second language learners.

Similarly to motivation and type of interlocutor, identity and investment are both characteristics that have proven important in the study of second language acquisition. A learner's identity with regards to the target language is a potentially powerful motivator to invest time and effort into study. In one case describing EFL students at a high school in Japan, "when learners publicly displayed their identity as English learners by demonstrating their difficulty and struggles with grammar," it allowed the students to be "publicly accepted as learners" and "encouraged them to invest in L2 communication" (Tomita, 2011; pp. 163-4). This represents a strong case of identity formation affecting learning, since students could be encouraged to communicate more in the L2 and be publicly accepted as learners more so after having established their identities as learners. Although identity formation affecting language learning may not be a general rule across all language learning situations, it certainly has the potential to be true in some cases, as evidenced by Tomita's case study. Social networks potentially give clues as to how and to what extent a learner thinks of themselves and forms their identity over time within the target language. For example, if a learner primarily joins groups associated with being a student, or has a lot of contact with other students, or actually is a student, then they may be identifying as a student. If they are seeking out more relationships and contact with people outside of the school context, they may still identify as a student, but are also desiring to identify as being a user of the language up and above what it means to be a student. That is, they are not confining their use and practice of the language to situations where they are readily identifiable as a student, but rather are including situations where they are integrating into the L2-speaking community in other ways. Investment is a concept related to identity that has also been discussed in the social context. The concept of investment is intended to "capture the relationship of the language learner to the changing social world" (Norton Peirce, 1995; p. 10). By using the

concept of investment, we can recognize that a learner cannot choose how other users of the language interact with them, and also that not all opportunities to learn and use the language are equally available to all learners. For example, the immigrant women in Canada learning English in Bonny Norton Peirce's 1995 study were all highly invested in learning the language, but in some cases had little opportunity to use English. From the outside looking in, it may seem that they were not motivated to use the language, but actually power imbalances were restricting their opportunities. Both identity and investment are highly correlative, and one cannot be discussed without the other. Both relate to the social context of learners, and so looking at the social context through social networks is one way to study both identity and investment of learners.

Motivation, interlocutor type, learning style, and identity and investment are crucial aspects of language learning that can be studied through learners' social networks and, more specifically, learners' individual networks of practice (INoPs)¹⁴. Social networks and INoPs are imperative to the study of second language acquisition because it is not enough to study the learner in isolation from society, or to study the learner's motivation (for example) as divorced from the learner's social context. It is important to look at these characteristics in the learner's social context because all these aspects of language learning, social networks included, are in a dynamic relationship with each other and in order to understand something about a learner's motivation (for example), it is important to understand something about their social network (and vice versa). If they do not form relationships with people and have opportunities to interact in the L2 through those relationships, they may not be as successful in their language learning as otherwise (Norton & Toohey, 2001).

¹⁴ Motivation, interlocutor type, learning style, identity and investment, and social networks are constantly changing over the course of time. They are all dynamic and no longer thought of as stable traits that belong (or do not belong) to the learner in a simple binary fashion. Studies on all these aspects of language learning need to be detailed in order to truly investigate the nuances of change over time.

In this section the rationale behind looking at social networks in second language acquisition has been laid out. In the following parts of this section I outline the research behind INoPs and how they are used in the current study. Section 4.1.1 presents the different theoretical foundations of INoPs (social networks, including sociolinguistic variation and social networks generally in second language acquisition in section 4.1.1.1, communities of practice in section 4.1.1.2, and language socialization in section 4.1.1.3). INoPs as they were originally conceived as well as the original intentions and conventions used in Zappa-Hollman and Duff's 2015 article are described in section 4.1.2. I then discuss how the current study approaches INoPs in section 4.1.3.

4.1.1 Foundations of INoPs

This section is dedicated to laying out the foundational aspects of INoPs that were originally joined together by Zappa-Hollman and Duff (2015) in order to create the novel concept of INoPs. In their article, they describe their various inspirations for the concept, and I focus on the most foundational here. The INoP diagram itself is a web that shows relationships between people; the most fundamental idea behind this is the idea of the social network in linguistics (section 4.1.1.1 below). Zappa-Hollman and Duff also drew on the idea of Communities of Practice (CoPs) from the field of second language acquisition (section 4.1.1.2 below). Finally, the original intention of using INoPs as a tool to investigate language acquisition was to focus on the socialization of learners into aspects of the target-language such as writing practices, so a short review of language socialization in SLA is discussed in section 4.1.1.3 below.

4.1.1.1 Social networks

Social networks have been an area of much research in both sociolinguistics and in second language acquisition. They are used differently in both disciplines, but are able to help researchers investigate specific aspects of how sociolinguistic variation occurs or how second language acquisition occurs.

4.1.1.1.1 Sociolinguistic variation

Work on social networks in sociolinguistics has shown that integration into a social network (measured by a network strength scale—NSS—that uses indicators of network density and multiplexity to measure the network patterns of individuals and link them to individual linguistic patterns [Milroy, 1980; p. 139]) affects the linguistic variants one chooses to use because the social network acts as a norm enforcement mechanism (Milroy, 1980; p. 136). Social networks have “the capacity to impose specifically linguistic norms upon its members,” (Milroy, 1980; p. 136). Milroy also noted that “the closer an individual’s network ties are with his local community, the closer his language approximates localized vernacular norms” (Milroy, 1980; p. 175). Therefore, by studying and measuring network strength scale scores, sociolinguists can show that a participant’s language varies based on how integrated into the network a participant is.

Two of the more key measures of integration into a social network are density and multiplexity (Milroy, 1980; p. 139). Density measures the number of links among all members of the network. To provide a density score for a member of the network, the number of links the central participant has to other members is divided by the total number of possible links in the network. A multiplex link between two individuals in the network is when the individuals have more than one tie to one another, such as they are related (one tie) and they both attend the same

church (two ties). The multiplexity score of the network is calculated by dividing the number of multiplex links by the total number of links in the network. A less dense, less multiplex network surrounding a central individual has less influence on the linguistic variants in that individual's speech (Chambers, 2009).

One influential social network study was Labov's study of Harlem teenagers in gangs in New York City (Labov, 1972). Labov used sociometrics, questioning the members of the network about their relationships with others in the network, as a proxy for directly measuring density and multiplexity. This study showed that when comparing age-matched, location-matched, and class-matched individuals, more central members of the gang spoke more like each other than the "lames," who did not participate in gang activities (Labov, 1972). Another influential social network study in sociolinguistics was Lesley Milroy's study of three working class neighborhoods in Belfast (Milroy, 1980). This study showed that participants' linguistic variants were related to such measures of network integration as their kinship ties, having the same workplace as others in their network, and participation in an activity in the participant's neighborhood. Participants with a higher measure of network integration as measured by the NSS produced more local variants of the linguistic variables under study than those with a lower measure of network integration. Some of the variables included (th) (intervocalic interdental voiced fricative deletion), and (ʌ) (the mid-central vowel alternating with a raised variant ʊ; Milroy & Milroy, 1978). These two studies, and many more sociolinguistic social network studies (Chambers, 2009; pp. 76-78) demonstrate that social networks reveal reasons for linguistic variation and show that depending upon one's position relative to others in a particular social network, one's use of particular linguistic variants may be predictable.

4.1.1.1.2 Social networks in second language acquisition (SLA)

Several studies in second language acquisition have focused on the social networks of language learners in order to learn more about the social context of learners and relate that social context to other language-related or learning-related aspects, such as the effectiveness of study abroad, language proficiency, and literacy skills (to name a few). Although research on social networks in other sociolinguistic topics has been much more abundant than social networks in SLA (Kurata, 2013), there have been significant studies on social networks in second language acquisition that I review here. The most common research type of social networks in second language acquisition research is “personal network research” (Kurata, 2013; p. 2), where the learner is the center of the network (as ego) and ties between the learner and the rest of the people in the network are documented. This allows the focus of the research to be on the learner from the learner’s point of view, and is a feature of social networks that is adopted into individual networks of practice (INoPs) by Zappa-Hollman and Duff (2015). In this section I review research on social network studies in second language acquisition in the study abroad context as well as in contexts related to language proficiency, competence, and awareness.

For a full literature review of research on many different learner characteristics’ relation to social network formation in the study abroad context, see Ring, Gardner, and Dewey (2013). They review research on factors affecting social network development in the context of second language acquisition, including identity, participant attitudes, and gender. One influential study that related learners’ social networks to motivation and attitude was Isabelli-García (2006). The researcher looked at what individual characteristics, such as motivation, attitudes toward host culture, and contact with the host culture outside of the language learning classroom, would impact the language proficiency (measured by oral communication skills) of four English-speaking university students on study abroad to learn Spanish in Argentina. Data collection

included oral proficiency interviews, informal interviews, diary entries (for motivation and attitude orientation data), and social network contact logs (which were used to construct the learners' social networks). Isabelli-García concluded that “the learners’ continued motivation was influenced by their success, or lack thereof, in incorporating themselves into social networks” and that “there is a conduit between motivation and language acquisition in the SA context, which is interaction in social networks” (2006; p. 255). Isabelli-García’s findings suggest that social networks are related to learners’ continued motivation to increase proficiency and are therefore valuable in that they potentially reveal an individual’s likelihood for continued motivation. That is, if learners successfully integrate themselves into social networks, they are more likely to experience continued motivation. Isabelli-García also related more developed social networks to the increase in proficiency that two of the four participants experienced over the course of the SA program. Along with other characteristics such as positive attitudes towards the host culture and high motivation to learn the target language, an “extended social network was the basis for why Stan showed development in linguistic accuracy” (2006; p. 244) and “Tom’s social network of Argentines... affected his L2 development... in linguistic accuracy and [he] stopped struggling to create appropriate forms” (2006; p. 246). The other two participants, Sam and Jennifer, also made improvements on linguistic accuracy but Isabelli-García did not attribute that to their social networks. This shows us that although social network may not predict gains in proficiency necessarily for all learners, it is an explanatory reason for some and therefore it is an important area for acquisition research.

There has also been significant research on social networks for learning Japanese as a foreign language in Japan. Haruhara found that it is important for study abroad participants to consider their daily life situations as learning (1992; cited in Kurata [2013]); the conclusion of

this research indicates that social networks, which show with whom daily interactions take place, affect language learning in the study abroad context. The Network Research Committee of the Japanese Language Education Society specifically found that study abroad participants believed that establishing social networks with co-nationals both hindered them from establishing social networks with native Japanese speakers and also impeded them from improving their Japanese; another conclusion from the study found that “a lack of active participation in networks with either co-nationals or Japanese native speakers resulted in a lack of information about Japanese learning and of opportunities to communicate with native speakers” (1997; cited in Kurata [2013; p. 5]). This means that even development of social networks with co-nationals may be important in at least one respect (that is, getting information about Japanese learning and Japanese learning opportunities), although the development of social networks with Japanese speakers is the key to having opportunities to communicate with Japanese native speakers. Because of this study, we know that study abroad participants are most likely aware that social networks have a bearing on the effectiveness of study abroad programs and, relatedly, to increases in language proficiency. A major study in this area is Ring, Gardner, and Dewey (2013). This study investigated how social networks were formed in a study abroad context, which factors facilitated or inhibited participants in forming social network connections, and which program interventions could be adopted to help participants in social network formation. The participants included 204 previous scholarship recipients who had participated in various study abroad programs in Japan. They took an online survey, the Study Abroad Social Interaction Questionnaire (SASIQ), with questions designed to “describe learners’ network development” (Ring, Gardner, & Dewey, 2013; p. 101). The major finding of the study was that participants felt more benefits from programs that had helped them in terms of developing their

social network, especially with native Japanese speakers of a similar age (university students). The setting where students reported most of their relationships had been initiated was at school, primarily through social clubs and circles. Although this was not the only way students met friends and acquaintances and formed relationships, it was the most frequent way. The authors reported that “while interactions with non-student Japanese natives were also available to and valued by SA participants, these interactions were not typically as available or productive” (2013; p. 109).

Another study by Kurata (2004) looked at learners of Japanese who had previously had study abroad experiences in Japan but afterwards had returned to Australia for university. Kurata analyzed four upper-intermediate learners’ L2 social networks through “in-depth, semi-structured interviews” (2004; p. 159) as well as diary entries and compared their pre-study abroad networks with the networks they developed after coming back from Japan. Having 10-month or longer study abroad experience resulted in larger post-SA social networks overall as well as L2 network participants with more diverse backgrounds, more multiplex ties, and several other beneficial features. Kurata found that “certain types of networks appear to facilitate language learning” (2004; p. 174) and specifically that multiplex ties and discussing complex topics with network members led to greater linguistic and non-linguistic awareness, and that having native speakers in one’s network seems to be beneficial (Kurata, 2004). This study, along with those described above, shows that 1) social networks are an integral part of how successful study abroad experiences are, and 2) study abroad experience can impact the nature of post-study abroad social networks. Study abroad experiences help to provide opportunities for linguistic proficiency improvement to participants both during and after the study abroad experience.

Aside from the context of study abroad, some research has also been done on social networks in general, relating to linguistic awareness, language proficiency (including literacy skills), and competency. Kurata (2004) and Tarone (1997) both show the significance of examining learners' real-life interactions in everyday situations (the type of contact they have with the people in their social network) and relating it to raising linguistic awareness. In Kurata's study of the social networks of learners of Japanese after a study abroad experience (discussed directly above), Kurata concluded that the participants' awareness of linguistic and non-linguistic (communication-related) problems was probably due to multiplex social roles within networks, complex topics being discussed among network members, and the presence of dense small clusters where participants were exposed to Japanese culture and natural Japanese usage (2004; p. 174). Tarone (1997) made the case that second language learners should be viewed in their social contexts in order to see how their social interaction impacts their cognitive capacity to acquire language.

Wiklund (2002) related the orientation of bilingual immigrant adolescents' social networks to their language proficiency. The study re-constructed the social networks of bilingual immigrants to Sweden from a variety of backgrounds and looked at whether the networks were more oriented towards Swedes, towards people of one's own ethnic background, or towards people of another ethnic background through questionnaires. The orientation was then related to the Swedish language proficiency by looking at verbal proficiency during follow-up interviews as well as written proficiency in compositions, and a measure of the capacity to adjust to the appropriate repertoire (spoken or written). Wiklund found that "those informants who presented the highest proficiency in adjusting to different repertoires have networks mostly oriented toward Swedes" (2002; p. 85), which indicates that the dominant presence of target-language speakers in

a learner's social network is a potentially important factor in raising language proficiency and mode-appropriate communicative competence.

Another study that related communicative competence to the structure of social networks was Smith (2002). The study focused on two case studies of the social networks of expatriates living in a host country, and used data from intensive interviews (including an instrument for social network reconstruction and two measures for communicative competence) to provide "flexibility in design, richness in detail, realism of perspective, and applicability of findings" (2002; p. 137). The researcher concluded that there is a "strong positive association between frequency of interaction with hosts and communicative competence" but that "network density is not always positively related to communicative competency" (2002; p. 154). This means that frequency of interaction in social networks is a potentially important measure. Another conclusion was that smaller financial support networks, smaller emotional support networks, and smaller advice/information networks that relied on expatriates' first languages were related to higher communicative competence in the target language. This finding, although derived from the expatriate context, may also be applicable to other second language contexts and finds that the more that learners have to rely on the target language for financial/emotional/advice support networks, the higher their communicative competence may be. It logically follows that the reliance on the target language for various kinds of support not only predicts high communicative competence, but potentially indicates how and why a certain level of communicative competence was developed in the first place, since the participants must have had more relationships or associations with L2 speakers rather than with other expatriates who would chiefly speak in their first language.

One study that linked academic and general literacy skills to the structure of social networks in the second language context was Ferenz (2005). Ferenz conducted interviews with six graduate students at an Israeli university who were taking a required EFL academic writing course. It was found that the different networks of the participants related to the identities and goals of the participants. The particular characteristics of the networks involved in the relationship were 1) how many people were in the network, and 2) the roles of people the participants talked to about English academic writing. In turn, the structure of the participants' networks related to English academic writing affected their literacy skills. Academic-oriented social networks impacted the participants' advanced academic literacy, and non-academic-oriented social networks impacted the participants' general literacy (2005; p. 349). This study shows that the varying makeups of social networks, along with other factors such as participant motivation, willingness to communicate, efforts to learn the language, etc., can tell us something about the participant at the center, and provides a basis for looking at not only spoken linguistic proficiency but also written competency in the L2 context.

Another study from the EFL context is Palfreyman (2006), which showed how social networks influenced participants' accessibility and use of social resources. The study's participants were native Arabic-speaking female university students in the United Arab Emirates, where English is a widely used language, who came from wealthy and high-status families and therefore, theoretically, would have access to a wide range of material and social resources to draw upon for improving English proficiency. The study used questionnaires and interview data to analyze the range of resources available both inside and outside the university context and which resources the participants were more likely to use. Learners made use of a wide variety of resources (both material and social) and had a fairly high level of English use both inside and

outside of the university environment. In private domains, participants typically chose entertaining and/or electronic resources as opposed to written resources in English. In other studies, social resources are the focus of network analysis. This study shows that looking at material resources in participants' social networks is one way to gauge how networks relate to language learning, so material resources will be included in the re-construction of participants' individual networks of practice (INoPs) for the current study.

The recent work on INoPs offers a new way to look at L2 social network data which was used in the studies discussed in this section. INoPs combine social networks (discussed in this section) with both communities of practice and language socialization work, which are reviewed in the next two sections (4.1.1.2 and 4.1.1.3).

4.1.1.2 Communities of Practice (CoPs)

Communities of Practice (CoPs), since the influential work of Lave and Wenger (1991), have been a fruitful way to describe how learning takes place for groups of individuals, both in the SLA context as well as a wide variety of other contexts. The term Community of Practice also came from the work of Brown and Duguid (1991) and Constant (1987). The foundation of CoPs comes from research on social learning theory (Bandura, 1977; Vygotskii & Cole, 1978) and is based on the notion that knowledge, and therefore learning, are embedded in cultural practices (Orr, 1990; Lave & Wenger, 1991). On the topic of this early view of learning as a social practice, Hoadley explains that "the anthropological view of knowledge and situated learning identifies not knowledge structures in the head (as with cognitive constructivism), nor behaviors conditioned by an environment (as with behaviorism), but rather as a property lying somewhere between individuals and cultures, involving practices in context" (Hoadley, 2012; p.

290). Put in other words, "a 'situated learning' approach (e.g., Lave & Wenger [1991]) treats context and learner as shaping each other, in all aspects of learning" (Palfreyman, 2006; p. 353). This idea of looking at learning in its social context is the basis of all subsequent research on CoPs and is an aspect that also forms the foundation of INoPs.

Wenger, McDermott, and Snyder specifically define CoPs as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (2002; p. 7). Wenger gives three descriptions of features that make up a CoP:

1. Mutual engagement: People (even from different social or economic backgrounds, or geographic regions) are engaged in a common action or have a common idea.
2. Joint enterprise: The stated goals of the community, and the renegotiation of those goals over time, to keep people in the community constantly engaged and accountable.
3. Shared repertoire: The repertoire of a community of practice includes routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts that the community has produced or adopted in the course of existence.
(Wenger, 1998; pp. 73-85)

Within these groups there are core members and there are peripheral members. The core members are those central to the group, who have already been socialized into the shared repertoire of the group and who are usually the leaders and the ones other people look to for group management (Wenger, 2002). Although the core members are usually part of the leadership/management of the group, there certainly may be core group members in that they have been socialized into the group but are not necessarily part of the group

leadership/management. The peripheral members are those who want to become more central to the group, but who are newcomers or otherwise haven't been socialized into the group's shared repertoire (Wenger, McDermott, & Snyder, 2002). Interactions among group members further solidify the joint enterprise and the shared repertoire of the group. When newcomers interact with core members (also can be known as "experts"), the newcomers can gradually move toward being a core member. This happens by way of the core members scaffolding the newcomers into the group and the newcomers constructing new identities as core group members over time. Experts in CoPs are supportive of the newcomers' attempts to participate more in the group and to potentially become an expert member themselves. The process of newcomers becoming integrated into the group through being helped by experts is called "legitimate peripheral participation" (Lave & Wenger, 1991; p. 29). Although CoPs do not necessarily need to be applied in the SLA context, it has been used in such a way.

One example of a CoP in the context of SLA comes from Gauthier (2016). Gauthier designed a new personal and academic development course curriculum based on CoPs for students on academic probation at a university in Atlantic Canada. She implemented such activities as having students create blogs "in order to provide them with both public and private community spaces to network and share information and for people to interact outside of the classroom" (2016; p. 9), having guest lecturers ("experts" in academic development) lead skill-building workshops, and having students give input on what they wanted to learn from the class (Gauthier, 2016). These and other activities were implemented to develop a classroom CoP based on the seven principles of designing a CoP from Wenger, McDermott, and Snyder (2002). Gauthier found over the course of time with her newly CoP-oriented course curriculum that "students gradually gained confidence in their abilities and improved their academic and social

skills, [and] they became more comfortable and involved in learning activities" (Gauthier, 2016; p. 7). She also noticed the legitimate peripheral participation of some students who gradually became more central members of the class, a hallmark of CoPs: "certain students eventually assumed leadership roles in the class community of practice and acted as mentors to other students (2016; p. 7). This example of a CoP exemplifies how learning can take place in a CoP, with a special emphasis on making learning situated in the social context.

The exemplary example of a CoP working well from Gauthier (2016) stands in contrast to some studies on CoPs that discuss their limitations. Hoadley (2012) points out some aspects of CoPs that are potential problems for forming a supportive space in which learning takes place. First, Hoadley mentions that "learners must have access to expert, and must either perceive themselves to be members or aspire to membership in a community in which expert practices are central" (2012; p. 291). There are certainly groups, for example classrooms, where some members are not there by choice and do not necessarily wish to be further socialized into the group; and other groups, such as a group of geographically diverse academics in Canagarajah's experience (below), where participants do not have ready access to the people already central to the group. Hoadley further points out that some CoPs, such as schools and classrooms where the format for teaching is primarily lecture, are not structured to give participants (students) space to gradually participate more and more like the experts in the community (teachers). In lecture format, the students only answer questions, and teachers lecture and ask them; students are peripheral and are not encouraged to take charge of their own learning by becoming more like the teachers in the classroom.

Here I describe two concrete studies that show the limitations of CoPs in practice: Canagarajah (2003) and Leki (2001). Canagarajah (2003) paints the picture of the community of

practice for writing for scholarly publication in the U.S. as someone who had tried to become a legitimate member of that community (that is, get a paper published in a journal) from a very peripheral position. As an academic in Sri Lanka, Canagarajah did not have any network connections to people who had already published, was very distantly placed geographically from the editors and reviewers of the journals, did not have any insight into the writing process for scholarly publication, and did not even have access to much previous literature in the field to reference in his own work, which is a necessary part of research for publication (the literature review; Canagarajah, 2003). He points out that his situation illustrates a problem with the theoretical concept of CoPs: “Lave and Wenger start from a neutral playing field, where the differing access to resources don’t seem to matter. ...Attempting to participate in one’s community of practice from such contexts of limitation brings up many ‘unofficial’ or ‘unintended practices’ (Lave and Wenger, 1991; p. 107) of the marginalized that remain unacknowledged and often surreptitious” (Canagarajah, 2003; p. 235). Since the concept of a CoP focuses on the community itself at the center of focus, it naturally sets boundaries around the people within the community and often disregards the people outside of the community who are too peripheral to break in and become a legitimate member of the community. By shifting the focus onto the individual, as Zappa-Hollman and Duff (2015) do, we can focus more narrowly on one person’s attempts to break into whichever CoPs and fully understand what it takes to go from the periphery to the inside of a CoP.

Leki (2001) describes a classroom CoP and, more specifically, a small group within the classroom CoP assigned to do a group project. Leki’s focus is on nonnative-English-speaking (NNES) students in group work with native-English-speaking (NES) students, and looks at how legitimate peripheral participation (Lave & Wenger, 1991) is treated when the apprentice in a

CoP (in this case, the NNES students) seeks to be accepted into the CoP by the master (in this case, NES students). Leki observed the cases of six NNES students at a large university in the U.S. Data was collected over a period of five years, and included interviews with the students, observations of their classes, interviews with their professors, written work, and other documents. In one case, an NNES student was assigned to work with three other NES students on a group assignment in a geography class. The NNES student didn't even conceive of herself as a peripheral member of the group at the beginning, but the NES students immediately took up the roles of "experts" in the community. Two of the three NES students discussed the project between themselves, divided the work, and in general made all of the decisions about the project without the input of the NNES. Leki described this situation, and the broader situation of NNESs in small group CoPs in general in university classrooms, as "the voices of the least powerful, the NNES students, tended to be muted or ignored in the unsatisfactory group work experiences. Their own presumption of equality with the domestic students collided with the domestic students' construction of the NNES students as variously handicapped" (Leki, 2001; p. 61). This clearly illustrates the potential problem of considering CoPs as supporting environments that encourage learning; frequently, it is the actions of certain individuals in the CoP that determine the type of environment the CoP will be for the various participants.

Zappa-Hollman and Duff (2015) discuss the various problems with using the CoP as the unit of focus for language socialization. They emphasize that the CoP framework does not consider "power differentials among participants as well as the complex nature of negotiations and access to the community" and that the CoP framework "tends to assume that people in a CoP are supportive of one another's membership, participation, and ultimately their status as potential experts or leaders in the group" (2015; p. 336). They also point out "the difficulty of accounting

for the kind of support that learners are afforded through relationships that may not be defined as CoP-like” (2015; p. 336). Because of these problems, Zappa-Hollman and Duff take on the Individual Network of Practice (INoP) as the unit of study, to better represent all the relationships an individual may be receiving support from, instead of focusing on the group-level factors mutual engagement, joint enterprise, and shared repertoire (Wenger, 1998). In this way, Zappa-Hollman and Duff seek to improve upon the framework of CoPs, which are influential and do show learners in context, but which miss certain nuances that become apparent at the individual level. Social networks (section 4.1.1.1 above) and CoPs (this section) are two of the three theoretical bases for INoPs; the third basis is language socialization, which I discuss in the next section (4.1.1.3).

4.1.1.3 Language socialization in SLA

Language socialization research primarily looks at “how persons become competent members of social groups and the role of language in the process” (Schieffelin & Ochs, 1986; p. 167). Every person is born into a culture with its own ways of using language, and with its own beliefs, practices, and routines that language is built into. The way the child grows up in their own communities and cultures, and how the child learns to use language in the same ways as adults from those communities and cultures do, is the aim of language socialization research. Schieffelin and Ochs further describe language socialization as having “as a goal the linking of microanalytic analyses of children’s discourse to more general ethnographic accounts of cultural beliefs and practices of the families, social groups, or communities into which children are socialized” (1986; p. 168).

The above illustrates the research of first language socialization; second language socialization is defined by Duff as “a process by which non-native speakers of a language, or people returning to a language they may have once understood or spoken but may since have lost proficiency in, seek competence in the language and, typically, membership and the ability to participate in the practices of communities in which that language is spoken” (Duff, 2012; p. 564). Second language socialization is a broad cover term that can encompass third-, fourth-, etc. language socialization as well, and can describe socialization at any age, as well as second or foreign language socialization. There are many situations, therefore, which fall under the umbrella of second language socialization. All research in this field, however, will focus on similar aspects of second language socialization: the practices of the community the learner is being socialized into, how learners navigate the process of becoming socialized into that community, the challenges or barriers to the learners’ socialization, what facilitates the learners’ socialization, and the overall process of how a learner goes from completely or mostly uninvolved in the community’s practices to the end point of being socialized (to some degree). Therefore, the benefits of socialization research are many, and by observing all of these aspects we can come to better understand how language learning takes place in all manner of second language communities with widely varying practices.

Much of second language socialization research has focused on academic discourse socialization in general, as well as oral discourse and written discourse socialization in particular. For a full list and discussion of research on academic discourse socialization, see Duff (2010) and Duff (2012). Academic discourse is a complex set of practices that are associated with school communities (universities, classrooms) and that involve reading, writing, and interaction in the social context of that school community. Duff defines it succinctly as “forms of oral and

written language and communication—genres, registers, graphics, linguistic structures, interactional patterns—that are privileged, expected, cultivated, conventionalized, or ritualized, and therefore, usually evaluated by instructors, institutions, editors, and others in educational and professional contexts” (2010; p. 175).

One study that looks at L2 academic socialization in a graduate-level university classroom is Morita (2004). Morita looked at data from self-reports, interviews, and classroom observations over the course of an academic year for six female graduate students (and several of their course instructors). The result of the research showed “how they negotiated their identities and exercised their personal agency to take ownership of their learning” (Morita, 2004; p. 574) and, as a result, showed the process of socialization into an academic classroom community. In some classroom communities, some students had a difficult time becoming viewed as a competent member, but in other classroom communities, some students had an easier time and were able to construct identities as competent members more quickly. One student, Lisa, went through the entire process of being a peripheral member of a classroom community because she did not speak up very often in class for various reasons such as being afraid of making mistakes in English, to a central member of the classroom community where she voiced her opinions more readily and viewed herself in a more positive light. She went through this process of socialization by employing many strategies, some based on herself (like preparing some things to say before class) and some based on using her network resources (telling her instructors and classmates that she wanted to speak more in class). Morita’s study of these learners’ socialization into an academic classroom community is beneficial to the study of language learning because it shows the background of students’ language improvement journey, for example, what strategies

students employ to improve, what the students' social context looks like, and the challenges students face throughout the process.

A study that looks at an oral discourse practice, oral academic presentations (OAPs), in the academic discourse socialization context is Morita (2000). This study focused on the native- and nonnative-English-speaking students of two graduate-level TESL courses, the practices of OAPs, and how the students were socialized into those practices. All OAPs were recorded and reviewed by the researcher and the student giving the OAP, followed by interviews. Students were socialized into the practice of giving OAPs in both classes starting with the instructor's introduction of the activity and their expectations for it. The process continued with preparing for the OAPs in a variety of ways including planning, consulting others, and rehearsing. Students also observed others' OAPs and their own recorded OAPs and used their observations and reflections to help in preparing for future presentations. Nonnative-English-speaking students in the study reported difficulties in the socialization process that were primarily related to their feelings of having limited English skills. By studying those difficulties, how they arose and how they were ameliorated throughout the course of the year, this research contributed to our understanding of the socialization process and how it relates to SLA.

These studies and other studies on academic discourse socialization (for example, Kobayashi [2003, 2004, 2006]; Leibowitz [2005]; Séror [2008, 2009]; Starfield [2002]; Tracy [1997]; Zappa-Hollman [2007a, 2007b]) illustrate the benefits of studying second language socialization and how language socialization relates to language learning. By studying second language socialization, we can learn what practices are associated with which L2 communities, the stages that learners go through when navigating from the periphery toward the center of these communities through legitimate peripheral participation, the barriers and challenges learners face

as they go through the process, and also what characteristics (learner characteristics, as well as characteristics of communities or practices) facilitate the learners' socialization into the communities.

In summary, a framework of L2 socialization is a beneficial framework for studying language in the social context, and it is the general framework around which the study of INoPs was originally conceived, combined with the foundational concepts of CoPs and social networks. These three foundations led to the adoption of INoPs as the focal construct of Zappa-Hollman and Duff (2015) and the current study. INoPs allow researchers to look at the learner as embedded in a community (CoP), aspects of the learner's network (social networks/sociolinguistics), and how those two aspects relate to the socialization of the learner in L2 discourses (L2 socialization). Next, I look at the characteristics of INoPs as they were used by Zappa-Hollman and Duff (2015) in section 4.1.2.

4.1.2 Individual Networks of Practice

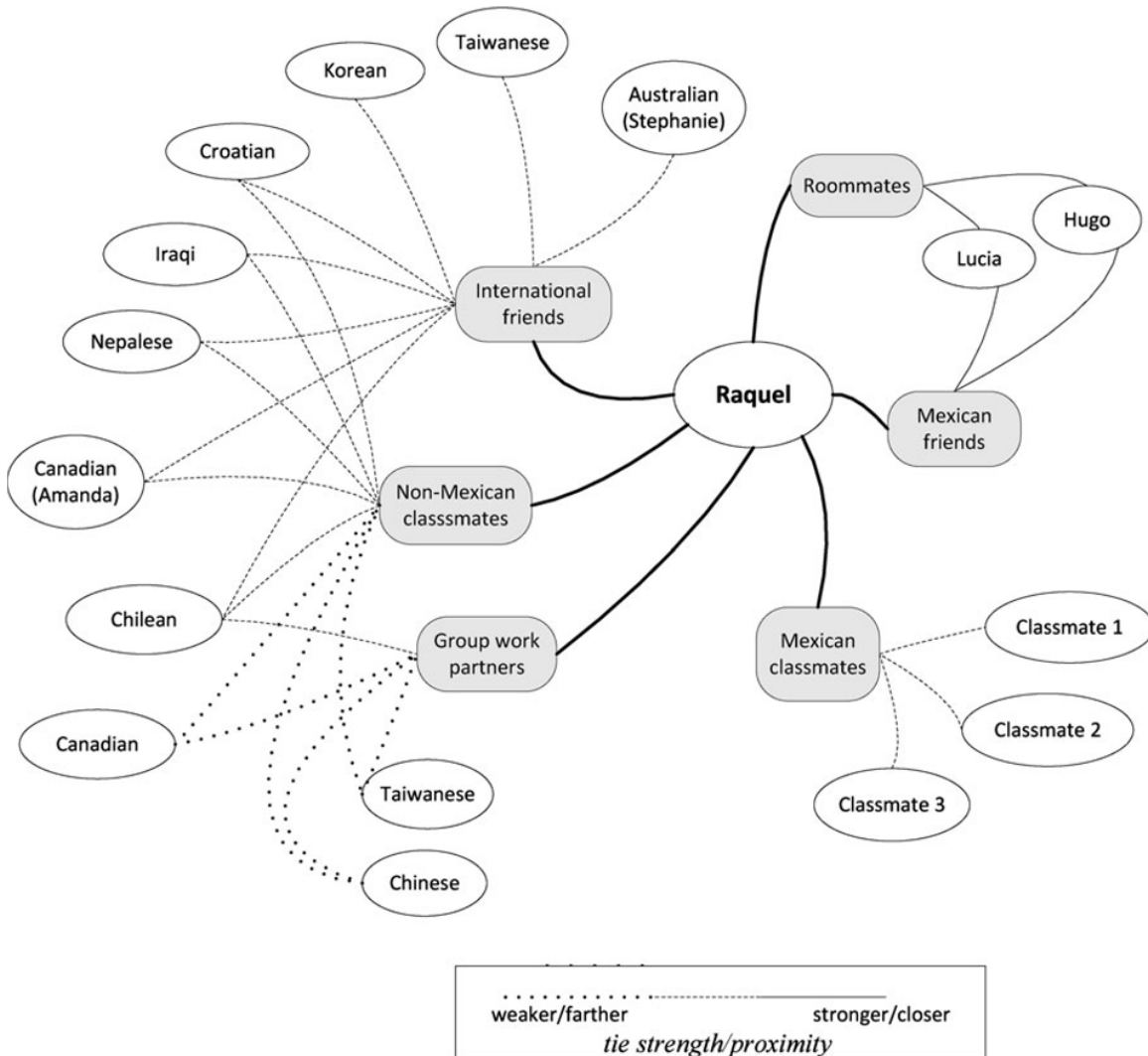
Individual Networks of Practice (INoPs) is a term coined by Zappa-Hollman (2007b) to describe a new way of analyzing language learners' social networks while taking into account varying quality of relationships within the network and also keeping the learner as the center, the focus, of the network (as opposed to looking at a community itself, looking at a single learner and all of the communities they are connected to). It is defined as "all the social ties of any given individual, whether weak/distant or strong/close, relevant to the phenomenon under study" (Zappa-Hollman, 2007b; p. 21).

Zappa-Hollman (2007b) and Zappa-Hollman and Duff (2015) studied the L2 academic socialization situations of Mexican students in a university in English-speaking Canada by

asking the participants about their situations (INoPs) and drawing diagrams to visually represent the relationships themselves and the strength of the relationships in the network. Zappa-Hollman (2007b) compared two students' INoPs, and Zappa-Hollman and Duff (2015) looked at three INoPs in full. Using qualitative interviewing, the researchers mapped the participants' INoPs, adding details such as various strength of ties between people in the INoP. They supplemented the visual INoPs with qualitative descriptions that added detail and richness to the INoP visualizations. One of the INoPs they constructed, for a student named Raquel, is given in Figure 1 below. We can see that the student is at the center of the network, with six groups of nodes branching off.¹⁵ Each group node has a connection (names of single people such as 'Hugo', or groups of people such as 'Croatian'). The lines connecting the people to group nodes vary in thickness, representing the strength of that relationship to the center individual. Some people or groups of people are connected to multiple group nodes, indicating that they are connected to the center individual through more than one group. For example, a Canadian student (Amanda) is connected to Raquel through both her group of international friends as well as being one of her non-Mexican classmates. These are the basic conventions of INoPs that were used as a foundation for the current study.

¹⁵ The thicknesses of the lines connecting the center participant node to the various group nodes are not weighted for tie strength/proximity as the lines from the groups to the individuals are. An interesting area of further research for INoPs would be to look at a way to measure tie strength/proximity for the groups as a whole, or to ask the center participant about their overall relationships to the various groups, as opposed to just each individual member. The current study follows Zappa-Hollman and Duff's conventions (lines of the same weight to connect the center participant node to the group nodes).

Figure 1. Example INoP from Zappa-Hollman and Duff (2015)



To summarize the results of Zappa-Hollman and Duff's (2015) study, the use of the INoP as a way to view students' socialization into academic English literacy discourses was very beneficial. It showed the relative importance of peers and other non-school-related individuals to the students as opposed to the importance of institutional authority roles such as instructors and teaching assistants because the students did not mention the institutional authority roles in their interviews. It also showed how social the process of writing in an academic context actually is;

writing is usually viewed as a solitary, individual act but the study of students' INoPs revealed how much they draw support from their social network and collaborate to learn about writing practices. A study of INoPs also nicely complemented the other data collected, such as interview transcripts and actual writing assignments, to visually represent the social ties utilized by students as they went through the process of becoming socialized into academic English literacy discourses. These are all concrete benefits of studying INoPs.

The study of INoPs was demonstrated by Zappa-Hollman and Duff as advantageous for learning more about language learning and academic discourse socialization for Mexican university students. For the current study, INoPs were used not to investigate socialization into academic writing practices, but rather as a visualization tool during interviews to see what social relationships and material resources Korean learners used over time, as a gauge for their investment in Korean use and learning. In the next section (4.1.3) I discuss this innovative use of INoP diagrams as well as the other ways in which the current study builds upon previous research.

4.1.3 New research with INoPs

INoPs were originally introduced as a novel way to study learners' social networks in an academic writing socialization setting by Zappa-Hollman (2007b) and Zappa-Hollman and Duff (2015). The concept was conceived from previous studies that focused only on communities of practice (CoPs) to focus on individual networks (similar to social network theory stemming from sociolinguistics). The concept was further altered from social network studies such as Kurata (2004), who only mapped out network ties of language learners with other speakers of the target language, and who didn't include relationships that offered the learner affective or motivational

support rather than linguistic support. Zappa-Hollman (2007b) and Zappa-Hollman and Duff (2015) chose to incorporate all types of social relationship into the INoPs they mapped as it allowed them to see the richness and diversity in a learner's network, and because it also allowed them to see how motivation and identity in the network was constructed, rather than just focusing on the linguistic aspect of language learning. The current study also maps those affective/motivational social relationships into the INoPs, in order to cover the breadth of the networks of Korean language learners, which goes beyond only who they speak to in Korean.

One way in which the current study's instantiation of INoPs builds on the previous instantiation is the inclusion of material resources in the networks in addition to the social resources (relationships that the learner has with other people). Fukunaga (2006) studied four learners of Japanese who all use anime and anime-related activities (and other materials that fall under the larger umbrella term "anime") to connect with their language study. For those students and for language students more generally, material resources can be very important in a learner's continuing motivation to study a language or how the learner constructs their identity within and in relation to the language's people and culture. Palfreyman (2006, see section 1.2.2 above for summary of research) noted that one of the big sources of material in the target language for the participants in his study was material resources such as TV shows, movies, and music. He concluded that "learners make use of a rich variety of material and social resources to practice English and to attempt to clarify their understanding of the language" (Palfreyman, 2006; p. 365). Therefore it is important, in order to see the breadth of resources that language learners are using, to include material as well as social resources. In the current study, material resources will be included in the visual representations of the INoPs as a separate INoP diagram alongside the

one representing social relationships. This allows us to see the materials in the context of the learner's network, equally represented alongside the learner's social ties.

Another way that the current study expands on the conventions of INoPs is the way that the strength of relationships is represented in the INoP visualization. Zappa-Hollman (2007a) and Zappa-Hollman and Duff (2015) used the number of times a certain relationship was mentioned in the interview process with a participant and other ways in which the participant mentioned that certain relationship as strong or otherwise important as the way that they determined the weight of the line between the participant in the center of the INoP and the other person. Thicker lines represented relatively stronger relationships, and dashed or dotted lines represented weaker relationships. For the current study, I used a different proxy for this metric: instead of using number of mentions in the interview, I asked participants to report how much time they spent with that resource over the course of a week, and used "time spent" as the proxy for the type of the line (solid, long dash, short dash). The rationale behind this is that the resources students spend more time with will give them more input in the target language or have a larger impact on the student's motivation than the resources they spend less time with, whether that impact is positive, neutral, or negative. It is a way of quantifying the measure of "importance," but certainly is not a perfect proxy, since resources that one spends less time with may certainly carry more weight in terms of motivation or identity construction than resources that one happens to spend more time with, and vice versa.

Additionally, in order to see the amount of input in the target language vs. the dominant language of the environment the learner is receiving, the current study uses an added visualization of line transparency. Depending upon the percentage of any relationship (with a social contact or use of a material resource) that is spent in Korean vs. English, the line is either

solid, slightly transparent, or slightly more transparent. This allows us to see which relationships in the INoP tend to be conducted more in the target language (Korean) or more in the supportive language (English). This visual incorporation of time spent using Korean vs. English has potential future applications, such as correlation with other aspects of language learning or proficiency, but that is out of the scope of the current study. Here, it is regarded as an interesting aspect of the learner's INoP and may (or may not) inform their changing levels of investment in using Korean.

A third way in which the current study's adoption of INoPs differs from previous research is the language learning setting and the use of INoPs to investigate investment in language use and learning, rather than to investigate how socialization occurs. Whereas Zappa-Hollman (2007a) and Zappa-Hollman and Duff (2015) were looking at INoPs in an ESL academic writing socialization context, the current study focuses on foreign language and heritage language contexts. The foreign language context differs from the second language context in that the foreign language is not the language of the learner's environment, and all language input happening outside the network of foreign language social and material resources can be assumed to be in English instead of Korean. Even for the HLLs in the current study, once their social relationships and material resources in Korean have been mapped out (including anything related to the heritage language contact such as communication with family), the default language input for the rest of their time can be assumed to be English, as they are living in the U.S. and attending a university where English is the language of instruction. This allows the INoP to capture all of the input in the target language that the learner is receiving, as incidental language input such as overhearing others' conversations, interacting with locals, and reading signs, for example, will all be English instead of Korean input. In this way, the INoP

should be able to show the learner's outward-facing manifestation of their investment in Korean, by showing all of the contact the learner has with Korean at any point in time for which the INoP is drawn.

Zappa-Hollman and Duff (2015) used INoPs to investigate the socialization of students into the academic discourse practices of the host university in their study abroad programs. However information from a particular language learner's INoP is not limited to how they are socialized into a community or discourse. Compiling language learners' INoPs in the foreign and heritage language contexts is interesting in and of itself, as it reveals the shape of the learner's contact with the target language and communities of people who speak the target language. The current study uses INoP diagrams to reveal the extent to which the learners are in contact with the target language, that is, it gives us information about who learners interact with and what material resources learners use. The current study uses this application of INoPs to also explore the learners' opinions about their own INoPs, in particular which social contacts or material resources the learners believe are most helpful and least helpful in terms of allowing them to sustain motivation and grow their investment in the target language, as well as in terms of helping them to develop their target language linguistic skills.

In summary, the current study modifies or extends several aspects of previous instantiations of INoPs. First, the current study includes material resources as well as social relationships to show the breadth of the language learner's language learning points of contact. Second, a measure of time spent with the resource or person, as well as a measure of percentage of the relationships that is in Korean (vs. English) are both represented for each relationship. Third, the current study uses INoPs in the context of foreign language and heritage language learning. Fourth, INoPs are used as a tool to see the learner's whole life related to the target

language, and as a lead-in to discover which social contacts or material resources the learner thinks are most or least helpful in sustaining investment and in developing target language skills.

For the rest of the chapter, the current study is discussed. The research questions are stated in section 4.2.1. The participants and methods are included in sections 4.2.2 and 4.2.3, respectively. In section 4.2.4, the results are presented, split into results from the survey research and results from interviews of two Korean as a foreign language learners (KFLLs). The discussion of the results and the conclusions are included in section 4.3, and the chapter ends with a summary in section 4.4.

4.2 The study: intermediate-level KFLLs' INoPs

This section lays out the various parts of the current study. The research questions, participants, methods, and results are discussed in turn. This study lays the foundation for the study in the next chapter. Here, Korean learners' INoPs are investigated at a single point in time in their Korean learning journeys. In the next chapter, this is expanded to cover INoPs in a more longitudinal fashion.

4.2.1 Research questions

The first goal of the current study is to examine Korean learners' INoPs in general, to see the scope of the networks and to make broad stroke generalizations about what may or may not be included in them, in order to inform future studies that may choose to focus more narrowly on certain aspects of the INoPs. Some types of relationships may be informative for overall results and will therefore be looked for specifically, but these are not the only dimensions of

relationships that occur, and so more general aspects of the relationships will be discussed in the results. The types of relationship that the current study focuses on are in-class and out-of-class relationships. Broadly, the study is looking at the size (how many nodes appear) and nature (the amount of time spent, the percentage of Korean spoken, and the individual's perspective) of in-class relationships, that is, relationships with classmates and instructors, and comparing them to the size and nature of out-of-class relationships, that is, relationships with any other person with whom Korean is practiced or discussed, e.g. language partners, non-classmate friends, family, etc.

Incorporated into the first goal of the current study is the examination of the nature and number of resources used by Korean learners. In order to get the broadest picture of this information, resources in two dimensions will be examined: (1) resources that learners use to help them gain or maintain proficiency in Korean, that is, resources that learners use to study the language, and (2) resources that learners use to help maintain motivation for learning the language, or to maintain general interest in the language or culture. These two types of resources often in practice overlap, and so a clear distinction between the two types is not always made in the results. This is a novel addition to INoPs, discussed above in section 4.1.3. Both types of resources are used by Korean learners and so the use of both types informs the research by showing the breadth of the resources used. Looking at all resources in a learner's network will allow us to see everything within the learner's target language KFL or KHL context, instead of leaving out the material resources which may have a big impact on their sustained investment, identity construction, or linguistic input. In addition to the number of each type of resource used, the INoPs will document the nature of those resources in two ways: (1) the amount of time the learner spends with each resource (in hours per week), as reported by the learner, and (2) the

percentage of Korean the resource is in, also as reported by the learner. For example, a learner may report a social relationship with a language partner; the learner will then also report the amount of time spent with the language partner (e.g. 3 hours per week) as well as what percentage of the time he or she is communicating with the language partner in Korean (e.g. 50%).

The second goal of the current study is to see the INoP from the individual's perspective. The research gets at the individual's perspective by asking about the helpfulness of the relationships and resources in the INoP. "Helpfulness" was defined for the participants as helpful in one of two ways: (1) helpful for proficiency in the Korean language, or (2) helpful for continuing to be motivated to study Korean in the future. The individual's perspective gives useful information about the INoP and adds richness and depth to a study of INoPs. The discussion of helpfulness from the perspective of the learner will also inform Korean instructors' decisions about in-class pedagogical practices.

In summary, the three research questions of the current study are listed below.

- (1) What are the natures of the social and material resources in a Korean learner's INoP?
- (2) Which relationships or resources do learners think are more or less helpful? What are the characteristics of these relationships or resources that make them more or less helpful, from the learner's perspective?

4.2.2 Participants

The participants for the current study are currently enrolled students at a large public university in the Pacific Northwest. There are 13 total respondents who took the survey and 5 total interviewees who participated in the follow-up interview.

The participants for the survey were recruited from the Korean language classes at the university. There are five respondents from the fourth-year class, four respondents from the third-year class, three respondents from the second-year class, and one respondent who is not currently enrolled in a Korean class. Although the study does not focus on the differences in INoPs between heritage and foreign language learners, the general population of Korean learners generally splits into these two sub-groups and including the participants' background information adds detail to the characteristics of the Korean-learning population from which the participants for this study were drawn. There are seven heritage learners and six foreign language learners. Heritage and foreign language learners were not separated by class, only by level. The heritage learners were determined to be heritage learners on the basis of their survey responses; respondents who fit one or more of the following criteria were classified by the researcher as heritage learners:

- Having taken a previous class designated for heritage learners (the university, until the year of the current study, had split heritage and foreign language learners into separate classes)
- Having family with whom they interact in Korean
- Indicating that they started learning Korean at birth or close to birth (0-1 years old)

Information about the 13 survey respondents is summarized in the following table.

Figure 1. Survey respondent details

Name	Age— current (years)	Age— started (years)	Current year of classroom study	HL/FL	Time spent in Korea (years)
Ben	20	18	3	FL	0.13
Emily	20	13	3	HL	0.13
Alexis	23	20	3	FL	0
Jacob	42	22	4	HL	13
Grace	21	11	4	FL	6.25
Hailey	20	18	3	FL	0.02
Lily	21	16	4	FL	0.17
Ha-yoon	18	1	4	HL	11.25
Jordan	23	0	4	HL	12
Margaret	27	21	2	HL	0
Riley	21	20	2	FL	0
Reagan	26	0	2	HL	0.42
Mckenzie	20	14	None	FL	0.5
AVERAGE	23.23	13.38	-	-	3.37

Notes:

- (1) All names are pseudonyms.
- (2) Respondents shown in **bold** were selected for the follow-up interview.
- (3) It was not possible to designate HL/FL status by “age—started” alone; the question on the survey was “How old were you when you started learning Korean?” and this question may be interpreted to mean when formal Korean classes commenced, or to mean when the participant was first exposed to Korean.

The participants for the follow-up interview were selected as the five survey respondents with the most developed INoPs (in terms of total number of nodes reported) who also noted their willingness to be contacted for a follow-up interview (survey respondents could choose to not be contacted for a follow-up interview for any reason). Based on the survey responses, the total number of nodes (in-class contacts, out-of-class contacts, and resources) were counted and the five participants with the highest counts were contacted for follow-up interviews. The reason for selecting the five respondents with the most developed networks was that by studying the most developed networks in this preliminary, data-gathering study, the most information could be

collected and therefore the most interesting results could be discussed. These results are intended to begin outlining the scope of INoPs for Korean learners, so that further research can see the scope and focus on narrower aspects as needed. In order to get more breadth, survey respondents were from Korean classes of three proficiencies (second year, third year, fourth year), were both heritage and foreign language learners, and were both currently enrolled in Korean classes as well as currently only self-studying (not taking a formal Korean class).

4.2.3 Methods

Respondents were first recruited to fill in an online survey using Google Forms. The survey aimed to get a preliminary picture of the respondents' INoPs with simple questions about the contacts and resources the respondents make use of in their Korean study or more generally related to Korean. The survey was divided into three parts, and all questions asked on the survey can be found in Appendix D. The first part gathered background information about the participants. The second part of the survey asks about the respondent's in-class interaction. The main information collected by this section is the number of in-class contacts the respondent has, how often the respondent interacts with that contact, and how much of the time of the interaction is spent in Korean (as a percentage). The third part of the survey asks about the respondent's out-of-class interaction. The same main information as was gathered in the previous section is also gathered here: the amount of time spent with each contact and the approximate percentage of that time the interaction is in Korean. The respondent is asked to list all contacts with whom they talk in Korean, AND/OR with whom they talk about Korea-related topics (language, culture, etc.) The fourth part of the survey asks about the respondent's resources. The respondents are asked to

list “resources that you often use to learn Korean or to learn about Korea-related topics.” Several examples, including TV shows, podcasts, movies, music, textbooks, software, and apps, were given.

The second part of the current study’s methodology is the follow-up interview. Five survey respondents were chosen for an approximately hour-long follow up interview each. The interviews were all audio recorded and subsequently transcribed. Qualitative interviewing techniques as described in Rubin and Rubin (2012) were used for the interview. Briefly, the interviews were semi-structured, that is, a general direction and some questions were prepared beforehand, but each interview differed based on the interviewee’s personal experiences as they related to their own INoP. The researcher used the interviewees’ survey responses to visually illustrate each interviewee’s INoP before each interview. Nodes were grouped according to given information, for example, all of the classmates and the instructor (if listed), were grouped into the “in-class” group, friends from a particular conversation club were grouped together, language partners were grouped by themselves, etc. For these preliminary INoP visualizations, no distinctions were made among relationships according to time spent or percentage Korean spoken, as were made with the final visualizations.

The prepared interview questions fell into two categories. At the beginning of each interview, the interviewee was shown the INoP as the researcher had mapped it from the interviewee’s survey responses. The first category was questions pertaining to that individual’s INoP. For each group and node in the INoP, the interviewee was encouraged to tell the researcher more about that particular node or group. The interviewee was also encouraged to correct wrong information or to add missing information (if they did not give a “time spent” approximation or a “percentage Korean” approximation for a certain node). The researcher

proceeded to get the interviewee to talk about each node and group in turn, including resources, until everything in the INoP had been covered.

The second category of interview questions was asking the interviewee to give their perspective on how helpful the contacts and resources in their INoPs were on either (1) the interviewee's Korean proficiency, or (2) the interviewee's motivation to continue learning Korean. Specifically, the interviewee was asked to choose the most helpful group of nodes or single node that has been the most helpful for either respect. Interviewees then elaborated on this, which provided details and richness on the INoP from the interviewee's perspective.

4.2.4 Results

Results are presented below in two subsections. The first subsection presents the results of the survey, which gathered information about learners' INoPs from 13 heritage and foreign language Korean learners. The second subsection presents the results of two of the follow-up interviews, both with foreign language learners of Korean. Even though only two participants' interview details are shared here for conciseness, the discussions of just two learners' INoPs revealed interesting similarities and differences between the two class-matched, context-matched learners.

4.2.4.1 Survey

One of the first interesting pieces of information from the surveys is the comparable average sizes of the in-class networks, the out-of-class networks, and the resources. The size of a network was calculated by counting the nodes in each network (three resources listed, for

example, resulted in a size of three). The average size of the in-class networks across all 13 survey respondents was 4 (with a range of 0 to 9), and the average size of out-of-class networks was 3.62 (with a range of 0 to 9 as well). This is interesting in that it shows the average size of in-class and out-of-class networks appear to be relatively similar. However looking at the survey respondents' data person by person, it is more common for an individual to have a lopsided network; that is, it is more likely for someone with a large in-class network to have a small out-of-class network and vice versa than it is for someone to have relatively similar sizes of in- and out-of-class networks. Additionally, the average number of resources across all respondents is 3, and ranges from 1 to 5. This information can be seen in Figure 2 below.

Figure 2. Survey results (overview)

Name	# of in-class contacts	# of out-of-class contacts	# of resources
Ben	2	9	3
Emily	3	1	3
Alexis	6	9	4
Jacob	9	6	3
Grace	2	5	4
Hailey	0	0	1
Lily	2	2	5
Ha-yoon	8	1	1
Jordan	9	2	5
Margaret	4	2	2
Riley	2	2	2
Reagan	1	1	1
Mckenzie	-	8	5
AVERAGE	4	3.62	3

The results of the in-class network statistics are as follows: participants reported that they spent an average of 1.78 hours per week with their in-class networks. This includes time spent both during class and outside of class, if the participants meet their in-class network contacts

outside of class as well. The Korean 400-level students have class for 4 hours per week, the 300-level students have class for 4.5 hours per week, and the 200-level students have class for 5 hours per week. However if participants meet in-class network contacts outside of class, it is possible for them to spend more than 4 (or 4.5, or 5) hours per week with their in-class network contacts. The average % Korean spoken with in-class networks is 51.7%. This information, broken down by participant, is given in Figure 3 below.

Figure 3. Survey results (in-class networks)

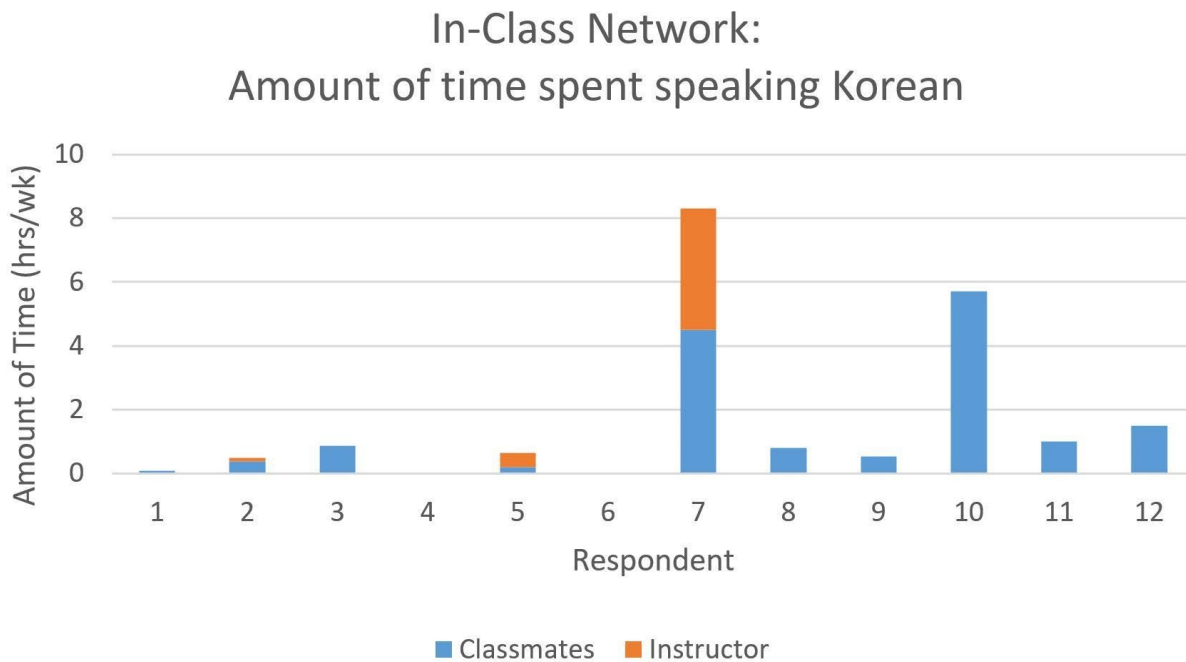
Name	# of contacts	Amount of time spent (hrs/wk)	Korean spoken (%)
Ben	2	0.44	10
Emily	3	0.77	35
Alexis	6	0.32	29.2
Jacob	9	0	0
Grace	2	0.5	65
Hailey	0	0	0
Lily	2	5	85
Ha-yoon	8	1	80
Jordan	9	0.67	80
Margaret	4	4	32.5
Riley	2	2	50
Reagan	1	3	50
Mckenzie	-	-	-
AVERAGE	4	1.78 hrs/wk	51.7%

The chart in Figure 4 below visualizes the amount of time respondents spend with their in-class network contacts in Korean each week.¹⁶ This number is calculated by multiplying the estimated amount of time spent per week with each contact, multiplying it by the percentage of Korean estimated to be spoken with each contact, and then adding the resulting numbers together

¹⁶ The survey asked participants to list the people they interact with in class. The participants were not given a definition of “interact,” so participants may have interpreted the word differently, e.g., some participants may have only included active interaction time (when they are both listening and speaking in a conversation) but others may have also included passive interaction time (when the instructor was speaking and the participants were only listening). Both types of interaction are important for language learning, and for future research in this area the language will need to be more properly defined and explained in order to gather specific data from participants.

for each participant. Rather than use this graph to compare participants' time spent speaking Korean to each other (since some participants interpreted the question differently than others, and other participants didn't provide the required information for this calculation), we can use it to see a general trend that classmates are usually providing most of the Korean interaction for participants, as compared to the instructors. The only two candidates for exceptions to the general trend are Grace (Respondent 5), who spends slightly more time per week with her instructor as compared to her classmate, and Lily (Respondent 7) who spends almost as much time in Korean with her instructor as with her classmate (see a discussion of both Grace's and Lily's in-class networks below).

Figure 4. In-Class Network: Amount of time spent speaking Korean



The results of the out-of-class network statistics are as follows: participants spent an average of 4.22 hours per week with their out-of-class networks. This is much higher than the time they spent with their in-class networks. Although it may be expected because there is a limit

on how much time one can spend interacting during class whereas there is not a limit on the amount of time one can spend interacting outside of class, it is somewhat surprising that out-of-class time was more than double in-class-time. Participants speak with their out-of-class network contacts an average of 42.95% of the time in Korean, which is a little bit lower than the percentage of time they speak Korean with their in-class network contacts (51.7%), but not much lower.

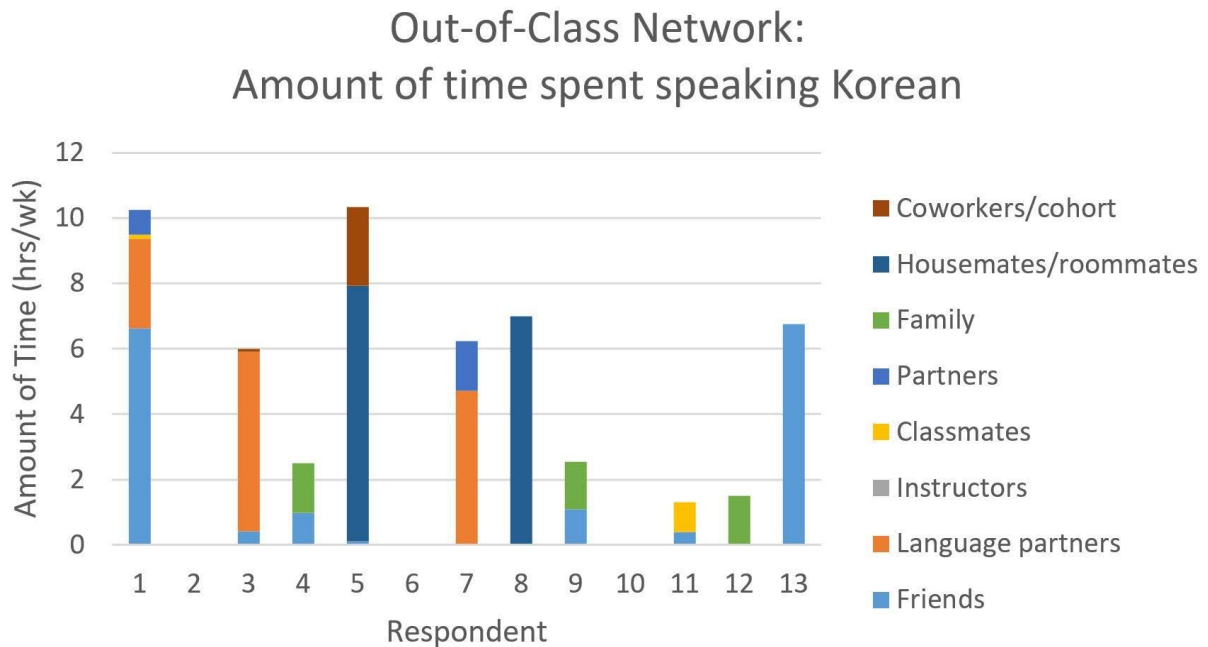
Figure 5. Survey results (out-of-class networks)

Name	# of contacts	Amount of time spent (hrs/wk)	Korean spoken (%)
Ben	9	5.36	39.2
Emily	1	3.5	0
Alexis	9	1.85	19.38
Jacob	6	0.71	99
Grace	5	4.65	46
Hailey	0	0	0
Lily	2	10.13	50
Ha-yoon	1	7	100
Jordan	2	2	63.75
Margaret	2	5	0
Riley	2	2.5	25
Reagan	1	3	50
Mckenzie	8	4.94	23.13
AVERAGE	3.62	4.22 hrs/wk	42.95

The amount of time spent interacting with out-of-class network contacts in Korean (in hours per week) is represented by Figure 6 below. Again, there is missing information from some survey respondents, so if the information is missing this is not indicative of participants not speaking Korean with their out-of-class network contacts at all. What is interesting about this information is that it shows us the types of people in out-of-class networks that people usually spend the most time speaking Korean to. From Figure 6, it looks like friends, followed by

language partners, are the source of most participants' interaction in Korean on a weekly basis. There are exceptions however, for example, Respondent 8 who only speaks to her roommate in Korean, and Respondents 4, 9, and 12, who speak much of the time to their families in Korean.

Figure 6. Out-of-Class Network: Amount of time spent speaking Korean



The results of the resources statistics are as follows (and are given in Figure 7 below). Participants have an overall average of 2.85 resources and spend an average of 8.74 hours per week with their resources. Those resources are in Korean an average of 69.75% of the time. It is surprising that the amount of time spent with resources is so high (especially compared to the amount of time spent with in-class and out-of-class network contacts). However it makes sense when the fact that many respondents' resources include listening to music and watching TV shows/movies is considered. These may be passive activities, where the respondents are simply listening to the music or watching TV (perhaps reading English subtitles), and not actively engaging with the resource to practice Korean, which necessarily happens when interacting with people. However they may be active activities, more akin to interaction with people in the target

language, if the respondent is rewinding/rewatching, or reading again, the resource. The resources are, on average, a higher percentage in Korean than compared to in-class network relationships and out-of-class network relationships. Learners may have a higher tolerance for a higher Korean percentage in resources as compared to in interactions with other people (especially if they are passively watching or listening to Korean, for enjoyment or with an aid like subtitles). Another reason that the percentage of Korean may be higher for resources is that the resources are in a fixed percentage of Korean no matter what the user's level of Korean, but people that the user interacts with may adjust to speaking English to facilitate communication or for a number of other reasons, which the user may not have any control over.

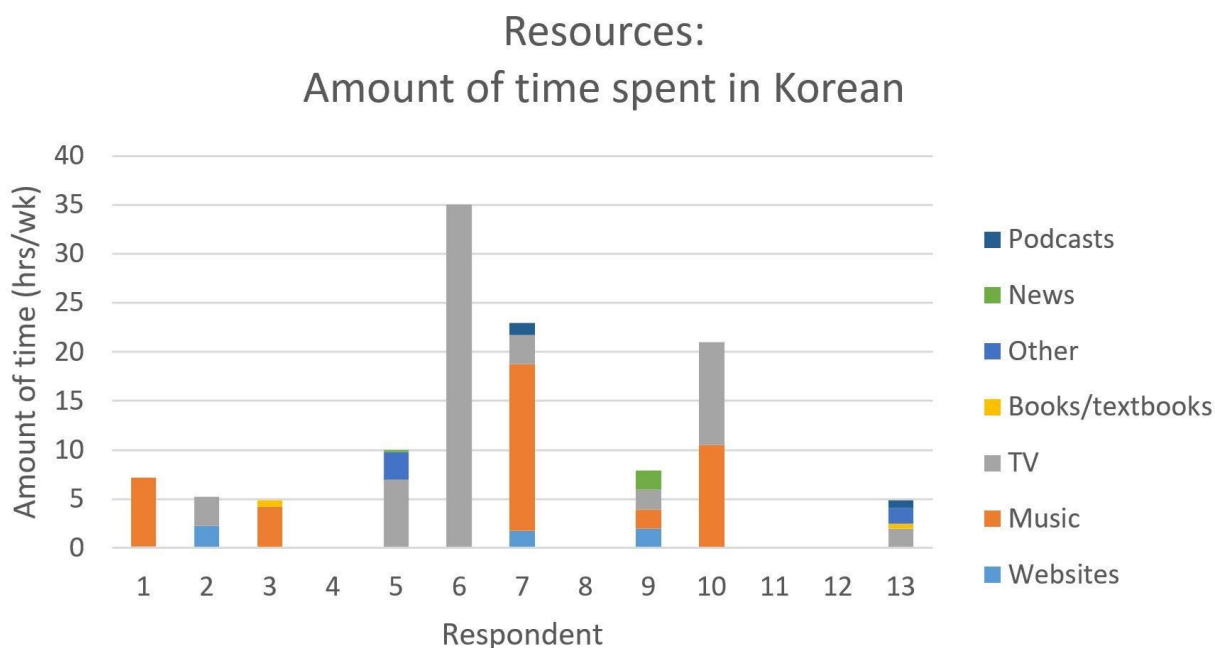
Figure 7. Survey results (resources)

Name	# of resources	Amount of time spent (hrs/wk)	Korean (%)
Ben	3	2.45	66.67
Emily	3	2.5	66.67
Alexis	4	1.78	83.75
Jacob	3	30	0
Grace	4	4.17	70
Hailey	1	35	100
Lily	5	5.7	79
Ha-yoon	1	0	50
Jordan	5	2	99
Margaret	2	10.5	100
Riley	2	0	50
Reagan	1	0.58	0
Mckenzie	5	1.5	72
AVERAGE	2.85	8.74	69.75

The amount of time respondents spent with their resources in Korean (in hours per week) is represented in Figure 8 below. This graph shows us that music and TV are indeed big time

resources, that is, respondents spend comparatively a lot of time listening to music and watching TV than with other resources. This makes sense; as discussed above, these can be passive activities that take up a lot of time but that don't use a lot of energy on the part of the learner, and the learner may or may not be using the resource actively to study Korean.

Figure 8. Resources: Amount of time spent in Korean



4.2.4.2 Interviews: Ben and Alexis

Results from two of the five interviews conducted are reported below for conciseness. Both participants, Ben and Alexis, were selected based on the relatively high number of contacts in their networks, in order to show an overall picture of what a Korean learner's INoP may look like. Ben had a high number of out-of-class contacts and a moderate number of resources

compared to the other participants. Alexis had a high number of both in-class and out-of-class contacts, as well as a moderate number of resources out of those interviewed. Both Ben and Alexis are KFL learners; the results from the KHL learner's interview is left out for future study. Similarly, the results of Mckenzie, who was not enrolled in a formal Korean class, will also be left for future study. Lily had a low number of both in-and out-of-class contacts. In the following paragraphs, I will use present tense to refer to Ben, Alexis, and their INoPs in order to reflect the study as it was at the time it was written.

Ben is an undergraduate at the university who is in his third year of formal Korean classes. Ben's post-interview INoP is illustrated in Figure 9 below. Ben's social contacts can be split into five groups and 11 total nodes. His five groups are his classmates (representing his total in-class network, as his instructor is not mentioned), his partner (dating), his language exchange partner, his Korean Conversation Group (an extracurricular club which will be discussed in more detail below), and his friends (many of whom also belong to the Korean Conversation Group).

There are many interesting aspects of Ben's INoP that are revealed through the illustration. First, Ben has many contacts with whom he spends a lot of time, but he speaks a relatively low percentage of Korean with those same contacts. He spends 7 hours a week with Elizabeth, Mary, and Patricia, all of whom participate in the Korean Conversation Group and who are also his friends, and 15 hours a week with Barbara, who he is also dating. But, he only speaks Korean about 15% of the time with Elizabeth, Mary, and Patricia, and only 5% of the time with Barbara. This group of friends makes up a large part of his overall Korean INoP—four contacts out of a total of 11.

The group that contains the most connections by far out of any other group in the INoP, however, is the Korean Conversation Group. This is an extracurricular, student-led, student-run

group that Ben joined when he began the Korean 200-level series, and now is a leader of. Seven out of the 11 contacts in his INoP have a connection to the Korean Conversation Group, although the contacts vary as to how often they come to the group. The group meets twice a week for two hours each time, and the goal is to have the opportunity to speak in Korean with fellow Korean-learning students and native Korean speakers who also attend the group. Ben originally tried to join the group when he was in the 100-level Korean series, but said that he wasn't having a good time because he didn't know anything and was therefore unable to participate at all since his level was so low, so he tried going again after having one year of Korean classes and found that his level was good enough for him to attempt participating. But now, after having completed an intensive summer study abroad in Korea and being enrolled in Korean 302, Ben finds that:

“[the Korean Conversation Group] was really helpful for me probably more like last year [in the 200 series], but now that I've kind of gotten the core grammar down and it's just a matter of me being able to speak quicker and more fluently, I would say it has not helped as much recently because they'll speak in English, or they are still trying to get down some of the very very basic grammar so I will usually help them out with that... but then that doesn't exactly help me practice.” (Ben, p. 6)

So, in Ben's case, the Korean Conversation Group was only helpful after he had established a solid foundation in Korean (1 year of classes) but had not gotten too advanced (3 years plus a summer study abroad), so it was only helpful for the duration of one year in the middle of his formal classes. This is a potentially interesting finding for Korean class instructors who encourage their students to join informal Korean conversation groups but do not know exactly how the groups run or how effective they are for students of varying proficiency levels. Ben did say, however, that “[the Korean Conversation Group] is probably where... I end up talking Korean the most is while I'm in that group or when I'm talking to people from that group” (Ben, p. 3) these days, so it does help him get practice in. If Korean Conversation Group

meetings are counted as one contact in his INoP, then that is 4 hours a week he spends, which is almost comparable to the time he spends with his language exchange partner. Another aspect of the group that Ben mentioned is that:

“As time went on, and as we each got a lot more comfortable with each other and became more friends, it just kind of became more of a time to just talk English, and at times I’d get kind of frustrated by that, just like, okay why do I bother coming if like we’re not going to speak Korean. They’re all my friends and I love them so much but like, I really want to speak Korean, it’s the reason I go.” (Ben, p. 4).

So the group has been a rich source of friendships for Ben, as evidenced by the fact that he spends time with group members outside of meetings (as can be seen in his INoP), and these friends are also interested in Korean and are studying Korean, which helps Ben surround himself with other Korean learners and helps keep him motivated to learn Korean. However, the friendships aren’t the most beneficial thing in a conversation group because it is too easy to slide back into being friends in English, thus wasting the time designated for practicing Korean. Although this may seem like a negative aspect, Ben also said that because of being friends with the group members, the group is a safe place to try out Korean vocabulary and grammar without feeling bad about making mistakes, since everyone is nice and friendly. To sum up discussion about Ben’s perspective on his Korean Conversation Group, there are both negative and positive aspects to consider, and it is important to keep in mind that every group like this will differ in its effectiveness based on the structure of the group and the particular attending members and their relationships with each other.

When asked about which of his contacts within the Korean Conversation Group has been the most impactful and helpful for his Korean development, Ben pointed to Mckenzie. He met Mckenzie through the group and sees her for four hours a week (only during the group times, not additionally outside of the group), and speaks about 30% of the time with her in Korean. There

are two reasons Ben stated that she is the most impactful and helpful contact for him. First, he mentioned that she has a very similar level of proficiency as Ben, as well as a similar level of motivation, meaning that while other members of the group may be content to speak English during Korean conversation time, Mckenzie is also frustrated when this happens and she makes an effort to speak Korean during the group time. Ben said:

“If I were to speak in Korean with a non-Korean member... it would almost always be [Mckenzie] because she actually has the highest chance of knowing what I’m trying to say, and I think she has the most motivation out of all the non-Koreans to actually want to speak it instead of feeling like they have to speak it, or that it’s a scare thing.” (Ben, p. 14).

“She is pretty similar of a level to what I am at right now, and she kind of seems to be on the same level that I’m at, and like, wanting to practice as much as we can... you know, we actually want to practice, even though we know that we’re going to make a lot of mistakes.” (Ben, p. 14)

Mckenzie also has non-overlapping areas of knowledge with Ben since Ben is taking the university Korean course but Mckenzie isn’t, and is generally self-taught and continues to self-study. This is probably beneficial because he can explain grammar points that are brought up systematically in class, but she can discuss what she’s heard and seen in her own study, which will not be the same material as was covered in Ben’s class. In summary, even though he does not spend the most time with Mckenzie out of his contacts (there are several other people in the group that he also sees additionally outside the group), and even though there are other people in the group with whom he speaks Korean a higher percentage of the time (Min Jun, or other Korean native speakers when they attend), he selected Mckenzie as the most helpful for his Korean development because of similar levels of motivation they share and a sense of friendly competition between the two.

One interesting result for Ben is that he has a very small in-class network. Ben only listed two of his classmates as part of his in-class network. Additionally, he only estimates that he spends about 0.25 hours a week with one (James) and 0.625 hours a week with the other (Jennifer), and only speaks to them about 10% of the time in Korean, “and only when prompted” (Ben’s survey response, pp. 2). He sees Jennifer outside of class sometimes to do homework, but that is the extent to which his in-class network extends to out-of-class. He also did not list his instructor as a part of his in-class network.

As far as his other social relationships go, two of his contacts in his Friends group, Frederick and Seo-yeon, are contacts he made during a summer intensive language academy in Korea. He spent five hours of class per day, five days a week, during the previous summer in that language academy. Seo-yeon was his instructor for the conversation class, which met for two hours a day, five days a week. Frederick was a classmate in the language academy. In his current INoP, he has kept in touch with these contacts, but rarely talks to them anymore. However, when he does speak to them, the percentage in Korean is much higher than most of his other contacts.

When asked to select the one contact out of his whole INoP who has had the most impact on his Korean development, Ben cited Seo-yeon, his summer intensive Korean program conversation instructor. Ben gave two main reasons that she has been the most helpful to him. First, he felt that he and Seo-yeon got along really easily and really well, which made it easy for him to talk to her. Also, Seo-yeon hardly speaks any English, which means that any conversation he had with her had to be in Korean, otherwise the conversation wouldn’t exist. The following two quotes illustrate these points in Ben’s own words.

“I really enjoyed talking to her because she’s very funny... [and] she thought I was pretty hilarious because I would say things that sounded weird because I was trying to say

things that sounded fine in English but sound really strange in Korean. So I always enjoyed hanging out and talking with Seo-yeon.” (Ben, p. 14)

“Because she didn’t speak any English, I knew I had to try and speak Korean if I wanted to say anything at all. I thought that was a pretty good motivator to try and learn.” (Ben, p. 14)

Ben’s main source of Korean interaction on a frequent basis is Joo-won, his language exchange partner. Joo-won only sometimes attends the Korean Conversation Group, so most of the time Ben and Joo-won meet just by themselves and speak a little more than half the time in Korean. They met through a language exchange partner matching program available through the university.

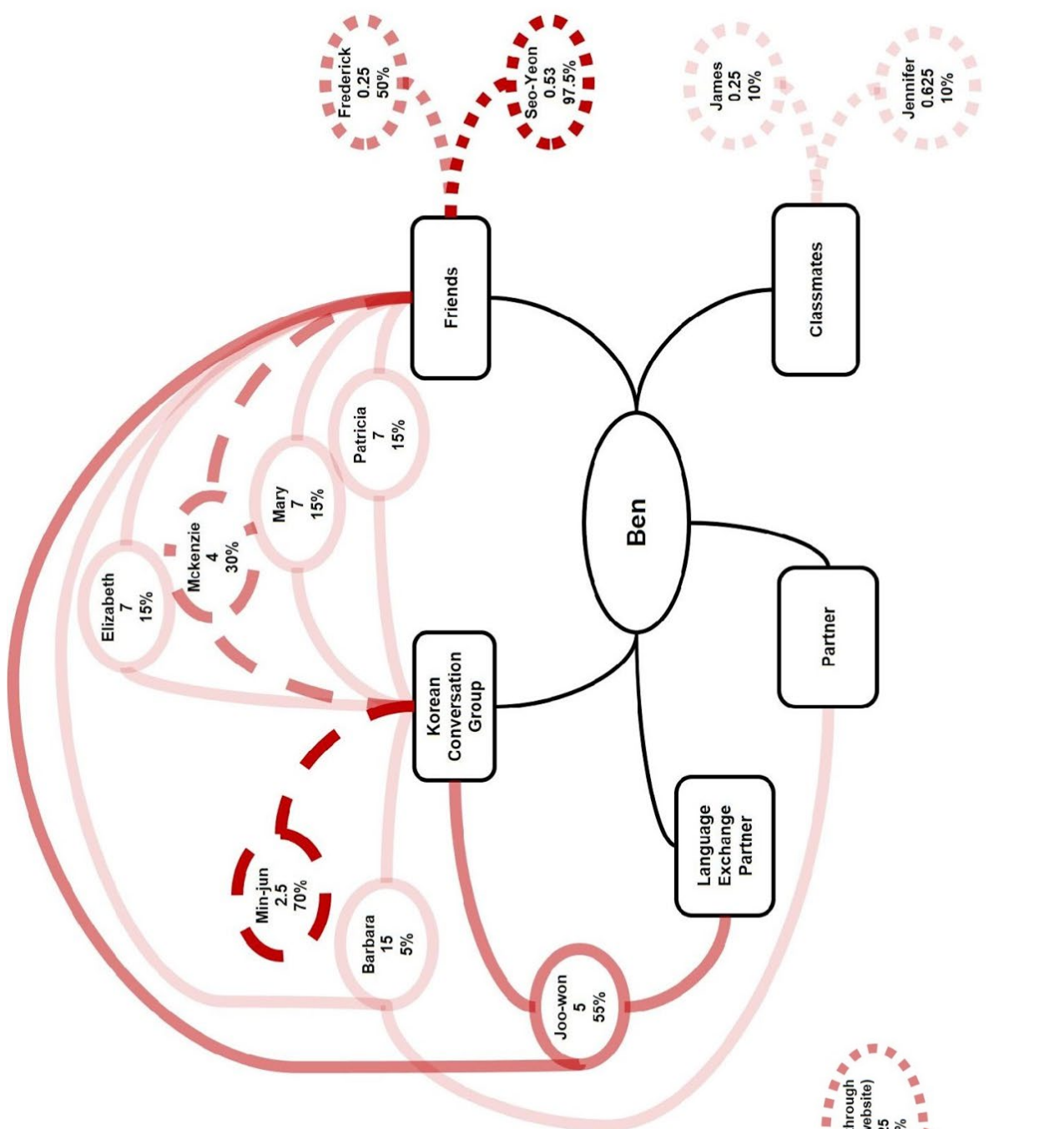
Ben also has three resources that he spends time with related to his Korean studies. The resource he spends the most time using is Korean music, which he listens to an estimated seven hours a week, and which is 100% in Korean. Ben said that “one of the main reasons [he] started learning Korean was because [he] wanted to better understand Korean music” (Ben, p. 12) and he still listens to Korean music to this day. One of the activities he does with the music is translating lyrics, either from Korean into English (for Korean lyrics) or from English into Korean (for some English songs). He said that is a very helpful activity: “I think that helps me quite a bit, because I think I remember those words a lot more if... it is a song I like. I’ll hear it all the time and when I hear the Korean equivalent, I think that sticks in my head a lot better because it’s associated with something I really enjoy and hear a lot” (Ben, p. 12). So for Ben, Korean music was a major original motivator to start formally studying Korean, and engaging with the music reinforces learning Korean or hearing Korean elsewhere since he is learning the vocabulary and grammar from the music lyrics. The other two resources that Ben uses are a blog (koreanthroughkpop.blogspot.com) that translates and explains popular K-pop song lyrics, and a Korean-English online dictionary (endic.naver.com) for multiple vocabulary look-ups a day, but

these resources are used a comparatively much smaller amount of time compared to Korean music.

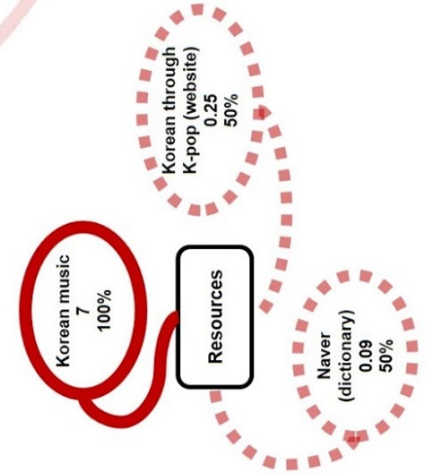
Figure 9. Ben's INoP¹⁷

Note: ¹The divisions among categories in the “time spent” and “% in Korean” calculations in all the INoPs are at the 33rd and the 66th percentiles, considering only the data from the five interviewees.

¹⁷ The divisions among categories in the “time spent” and “% in Korean” calculations in all the INoPs are at the 33rd and the 66th percentiles, considering only the data from the five interviewees.



Time spent (hr/wk):	0-0.69	0.70-4	4.01+
% in Korean:	0-17.3	17.4-69.2	69.3-100



Alexis is a second year Korea studies graduate at the university and is in the 300-level Korean series, which she placed into after having taken formal Korean classes at her undergraduate university. She has never been to Korea. Alexis's INoP is illustrated in Figure 10a and her resources in Figure 10b below. Alexis's social contacts can be split into five groups and 15 total nodes. Her five groups are her classmates (representing her total in-class network, as her instructor is not mentioned), her partner (dating), her language exchange partners (one current, one from her previous university with whom she is still in contact), her graduate program friends (two of whom are in her cohort, one of whom is in the Korea studies PhD program), and her general friends. Although she is motivated to learn Korean because it is a requirement for academic research in her chosen field of Korea studies, Alexis cites the potential for interpersonal communication as her biggest motivator in learning Korean. She said:

“It's the interpersonal touch. Even if I had no Korean friends, I would be interested in studying Korean history I think. But that motivation to really learn about someone else's news and someone else's history is helpful when you can talk to someone who would be surprised you know or would think it's pretty cool that you know or are interested.”
(Alexis, p. 36)

Overall, it can be seen at a glance from Alexis's INoP that she doesn't spend a lot of time with a majority of her contacts (indicated by the short dash lines) and she doesn't speak to them very much in Korean, either (indicated by the light color of the lines). Except for her language exchange partners and a couple of her classmates, Alexis speaks with all her contacts less than 40% of the time in Korean. However, Alexis has the biggest overall network out of all the interviewees at 15 nodes, which means that her Korean network is just more broadly dispersed. A discussion of the interesting points of Alexis's INoP follows.

Alexis's in-class network is the most developed in-class network of all five interviewees. She listed six of her classmates in the group, and she meets two of those six (Peyton and Maya) outside of class periodically to complete group projects. Even though some of her classmates she speaks to 0% of the time in Korean, this means that she is involved with her classmates and probably that she is well-connected within her classroom community. She does speak to one of her classmates (Hailey) 50% of the time in Korean, and one of her classmates (Maya) 80% in Korean, which means that some of her in-class relationships are allowing her to practice her spoken Korean skills and that the class is providing her with those opportunities. With regards to which classmate relationships are more helpful to her, Alexis said:

“I think a good part of that is just personal relationships, and I think a trust thing. So some people I feel more comfortable working with than others and so we can correct each other and it's okay... it's not a personal attack if someone gets something wrong... Personality meshing was I think the biggest part.” (Alexis, p. 5)

Alexis pointed to her group of grad school friends as the group in her INoP that has motivated her the most to continue studying Korean. Adam and Lee are in her Master's program cohort, and Parker is in a PhD program in the same field. She doesn't speak much Korean with them (compared to some of the other nodes in her network), and doesn't even spend a lot of time with them comparatively either. However, she cited that group as helpful to her sustained motivation because “we're close knit, we have goals for each other. And that's been very helpful in Korean learning... more motivating” (Alexis, p. 19). She pointed to Parker in particular as the friend who contributes most to her motivation because:

“He has a lot of goals for me. He's very invested in me going to Korea and perhaps teaching English there. And practicing my Korean and continuing on studying what I study. So he's been a motivating friend.” (Alexis, p. 16)

So for Alexis, the people who share her academic interests, since the interests relate to Korea, help her stay motivated. The small, tight-knit program (only three total in her cohort, and only a few other students in that field at the university) may also be contributing to her motivation by placing her close to the others instead of getting lost in a crowd of a program that is too big.

For Korean proficiency, however, Alexis pointed to her language exchange partners (Ji Soo and Ji Hee) as being the most helpful for her, saying that “they have been by far the most helpful, even more than class time and resources” (Alexis, p. 19). In general, Alexis has many native Korean speakers in her INoP (five including her two language exchange partners), and she uses them frequently for language help and support. But Ji Soo and Ji Hee are the two people that she spends the most time with, only excluding her partner, Chase (with whom she does not interact in Korean). Ji Hee was Alexis’s language partner at her undergraduate university, and Ji Soo is her current language exchange partner. Alexis sees her language exchange partners as helpful to her Korean language skills in complement to her formal classes because:

“All grammar that you learn in Korean class is necessary, but my language partners have given me the grammar that I would actually use in normal conversation. And then in terms of being able to communicate and express what I’m trying to say has been by far more helpful.” (Alexis, p. 20)

She goes on to say that:

“No matter how much you study, there are always going to be grammar points I just don’t use. And it is definitely important to understand, but even just being able to improve, for me at least, is being able to express myself. Because the more I can express myself, the more I use Korean and the more it kind of becomes cemented and used in my head, which has been helpful.” (Alexis, p. 24)

So for Alexis, Korean class and Korean language partners are two resources that provide different types of information, both of which are important to her overall Korean proficiency.

Her language partners give her something that her current Korean class doesn't: the opportunity to express herself in Korean and to use it often. Time spent with her language partners also provides her with knowledge of which grammar points are actually important in spoken Korean, which is information that she feels she does not get from her class.

One interesting point about her language exchange partner Ji Hee is that these days, they only communicate over Facebook messenger, since they are separated geographically and can't meet in person. This is a broader theme in Alexis's INoP. She interacts with not only Ji Hee but also her friend Tae Hoon primarily over social media, and she talks to her friend Hwan Do primarily over text. This is because she has built parts of her Korean network over time in different places, so to keep in contact with people she must use text and social media. What's surprising is that social media relationships may add an additional layer of motivation to traditional, face-to-face relationships because, according to Alexis, "that kind of thing is motivating because it gives you a real life view of what you're studying. And so it's not something that's just in a textbook" (Alexis, p. 13). So there is some exciting element to corresponding with people over social media in Korean that is perhaps differently motivating than in-person relationships. Even though speaking practice is available with today's technology (such as live chatting over Skype, or recording spoken messages/videos), most online communication is still written communication. So this is another way in-person and online social relationships differ: in-person relationships give the individual the opportunity to speak, but online relationships give the individual opportunity to write/type the language. Both speaking and writing/typing give the individual the opportunity to use the language, but in different modes. Both types of use are potentially motivating to the individual or helpful for the individual's language proficiency.

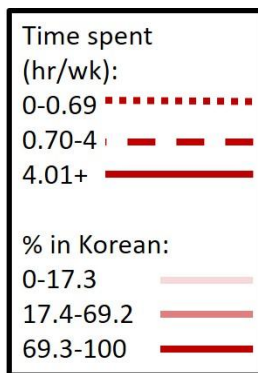
Alexis listed four resources that she uses in her Korean study. Like Ben, she listens to Korean music, but unlike Ben, she did not see Korean music as what originally motivated her to learn Korean; she started to listen to Korean music after she was already studying Korean history and had friendships with Korean students at her previous university. Naver, which is the same Korean-English online dictionary that Ben uses, is also a big part of Alexis's resources. She uses Naver every day for multiple lookups of vocabulary words, and Alexis is a big proponent of Naver (as opposed to another popular service, Google translate), and cites it as one of the most helpful resources she uses. She said that:

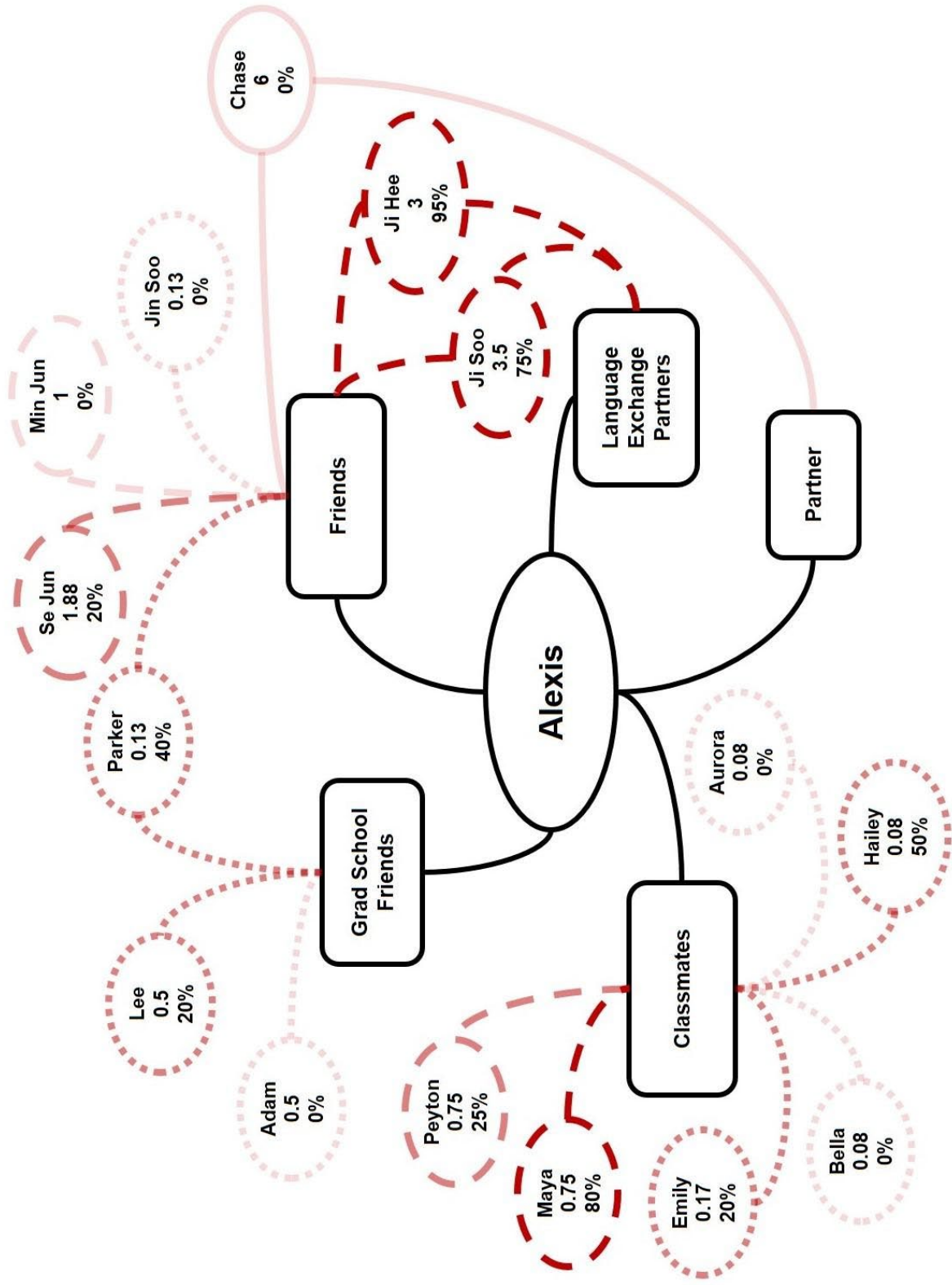
“Naver is helpful because I can type in a word I'm looking for or the word I think it is. And they'll give you a lot of different sentences it's used in and real life sentences that it's been used in. And different definitions. Also different words, which is really helpful. Because the thing about language learning is definitions that will be given aren't always the best definitions. And so seeing a whole list of different words that also mean 'truthfully' is helpful because then you can see, okay, well, this 'truthfully' kind of works better in this situation.” (Alexis, pp. 27)

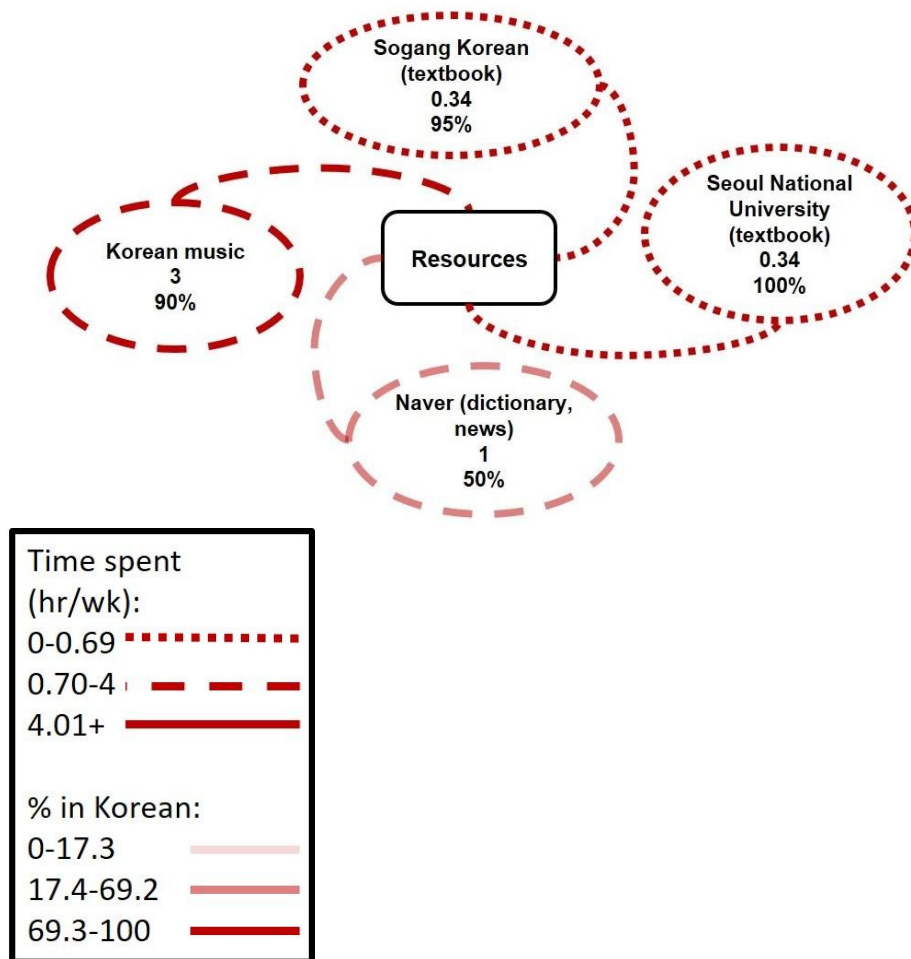
What's also interesting about Alexis's resources is that she lists two textbooks: one, Seoul National University, is the textbook used in her current Korean class. Sogang is the textbook she still has from her previous university's Korean classes. The reason that she uses both textbooks as resources while studying is that the one used in her current class does not have any English explanations of grammar points, while the one from her previous classes does. It's very helpful for her to have an English explanation of grammar points in the textbook, but she still thinks that her current textbook is helpful in other ways, such as providing interesting readings for students. She notes:

“As an actual textbook to use in class, I think Seoul National is better. But to actually learn what the grammar points are and what the meaning is, Sogang is better just because it actually gives you the English, versus I don't think we have an explanation in [Seoul National University's textbook].” (Alexis, p. 25)

This point illustrates that different students may have different needs that they require a textbook to fill, and there may not be one perfect textbook for use in Korean classes. There are trade-offs, such as English explanations which help students understand grammar for more interesting, level-appropriate readings which help students stay motivated. Alexis's reflections on this point, as someone who has had the experience of using two different textbooks for approximately the same proficiency level classes, gives us insight into this point.







4.3 Discussion and conclusions

Going back to the research questions, which are reprinted below, we can now start to make some preliminary observations of the nature of Korean learners' INoPs. The following discussion addresses the three research questions below:

1. What are the natures of the social and material resources in a Korean learner's INoP?

2. Which relationships or resources do learners think are more or less helpful? What are the characteristics of these relationships or resources that make them more or less helpful, from the learner's perspective?

The two participants whose results are presented in this study show varying natures of both their social connections and their material resources in their INoPs (research question 1). Both Alexis and Ben had in-class networks from being currently enrolled in a Korean class, but Alexis reported more classmates as part of her network than Ben did. Both participants reported very small amounts of time spent with people from their in-class network, indicating that in-class time spent working in groups is not a large source of input or motivation for either student. Neither student reported their Korean instructor, or any TAs or other institutional roles as part of their network.

Both participants reported that they had one or more language exchange partners who were Korean, and both spoke a relatively high percentage of the time with their language exchange partners in Korean, which was very different than the percentage of Korean reported spoken with other friends (in the Korean Conversation Group, in Ben's case, or with her graduate program cohort, in Alexis's case). The exception to this was Ben's friends Frederick and Seo-Yeon, who had been his classmate and instructor (respectively) during the summer exchange program he had recently completed. Each participant's groups of friends had relatively low percentages of Korean speech characterizing the relationship, which says that Korean learners may have many friends for motivation or affective support rather than as an additional source of Korean input or language help.

The presence of a graduate program cohort for Korea studies in Alexis's network and her remarks in the interview indicate that Alexis is motivated to learn Korean for professional

reasons and would like a job related to Korea studies/Korean one day. Ben's motivation, however, is to learn Korean in order to make social relationships and cultural connections. These two broad motivation types confirm the previous research on why students choose to study KFL, although Alexis also indicated that she is interested in Korean culture and making friends as well.

As far as the nature of the materials resources in both participants' INoPs goes, both participants reported the use of Naver, a Korean-English dictionary and Korean news website, as material resources. They both use it regularly and they both say that it is really helpful for learning Korean, especially as a dictionary and for example sentences. This is something that Korean instructors can exploit, encouraging students to make use of Naver in their studying. More research is needed to see if the social relationships and material resources present in these two participants' INoPs are representative of KFL learners in general.

Another major similarity with regards to material resources was that both participants mentioned Korean music as a big resource. In Ben's case, it was the primary motivator to study Korean, since he was initially interested in K-pop and then moved on to other types of Korean music and other motivating factors (creating social relationships, etc.). He also reported that he used to use K-pop to study the language, translating songs into and out of Korean as a language practice activity. In fact, he still reports using the website "Korean through K-pop" for about 15 minutes each week, even though he's moved on from K-pop to other K-music genres and other motivating factors to continue learning Korean.

In Alexis's case, she got interested in K-pop after she was already interested in Korean history, but now enjoys three hours a week of Korean music and uses it as a resource to keep her motivated to study. K-pop and the Korean wave in general have been reported to be motivators

to introduce and get students interested in studying Korean, and the INoPs of these two participants confirm that research. Korean textbooks, which may have been traditionally thought as the gateway to Korean culture for the common Korean-learning student, were only mentioned by one participant (Alexis), and only in terms of being useful for grammar explanations or level-appropriate readings. She did not mention textbooks as a way that she could be exposed to Korean culture. Ben, on the other hand, did not mention textbooks at all. Both participants seem to have explored culture by other means, instead of by the traditional method of the cultural points sections of foreign language textbooks or culture discussions by their instructors.

From the learner's perspective, some of the social relationships and material resources were more helpful than others, both in terms of motivation and in terms of language proficiency (research question 2). Alexis mentioned her graduate program cohort as a whole as the group of relationships that motivated her the most to continue studying Korean. She said that because of the close-knit nature of the small group, and because of the fact that they all had goals for each other in terms of future achievement having to do with Korean proficiency and having to do with obtaining employment in a field relating to Korean, she felt very motivated by her relationships in that group. In terms of helpfulness for general language proficiency, she cited her language exchange partners. She said that because they provided her with opportunities to improve her conversational fluency, which she didn't necessarily get from formal classes, she was really able to improve her Korean speaking skills with their help. They were also helpful to Alexis because they would help her sort out which grammar points she had learned in class would be more helpful to learn and include in speech, and which grammar points weren't necessarily needed for speech but she could just learn to passively recognize. An aspect of her social relationships with her language exchange partners that she mentioned was helpful for motivation was that it was

online communication. She seemed to be extra motivated to communicate with them because of this different mode of communication.

Ben mentioned both his former Korean instructor Seo-Yeon and a member of the Korean Conversation group Mckenzie as the people in his network who are most helpful to him in terms of his Korean proficiency. He mentioned that he and Seo-Yeon got along really well and just in general had good matching personalities. The other helpful aspect was that Seo-Yeon hardly spoke any English, so Ben has to speak Korean with her in order to carry on a conversation. There were two reasons Ben felt that his relationship with Mckenzie was helpful. Mckenzie had a similar proficiency level to Ben, but they had somewhat non-overlapping knowledge since Ben got his grammar from formal classes and textbooks, but Mckenzie wasn't in formal Korean classes. This is different from a native speaker, but was still very helpful to Ben. Mckenzie also was the most highly motivated person in the Korean Conversation Group, where some students did not practice Korean, so Ben felt that her high motivation made it helpful for him as well.

The current study has made a small start in attempting to capture the nature of INoPs of Korean learners, but there is much future research to be done. First, more rich and detailed INoP studies for various Korean learners should be conducted; the more Korean learners get their INoPs illustrated, the more this research will show the breadth of Korean learners as a diverse group. Second, an extra component of INoPs that was not included in the current study was the question of how INoPs change over time. In several of the interviews, interviewees mentioned how the most helpful person to their Korean development wasn't in their current INoP anymore since an INoP only captures the relationships of an individual at a specific point in time or range of time. Finding a way to incorporate a discussion of change over time while detailing INoPs would add depth and richness to the study of INoPs.

4.4 Summary

In this chapter I discussed how individual networks of practice (INoPs) have been used in previous literature, and proposed several new additions or alterations to the concept to fit into research on the context of KFLLs and KHLLs. I conducted a preliminary study using these innovations, where 13 KFLLs and KHLLs were surveyed to reveal the size and nature of their INoPs. Then, detailed results from semi-structured qualitative interviews with two KFLLs were presented and discussed. The combination of the survey results and the interview results revealed interesting differences in the size and nature of INoPs; some students have barely any social contacts or material resources that they use to interact with Korean, and others have rather well-developed networks with several groups of contacts and several material resources that they regularly use. The interviews with Ben and Alexis revealed the criteria with which some Korean learners determine relationships or material resources to be helpful or unhelpful, in sustaining their motivation to learn and in developing linguistic skills.

The next chapter uses the methods from this preliminary experiment as a springboard to accomplish a more in-depth study of Korean learners' INoPs. In this chapter, students were asked to report all of their interaction with people and resources for one point in time. However, in order to study the dynamic nature of motivation and how networks change over time, a longitudinal study is more appropriate. The extension in the next chapter therefore asks students to report on all of their nodes over the course of their Korean-learning journeys. This extension, in combination with follow-up tests of production and comprehension of Korean relative clauses, allows us to see a more comprehensive picture of the nature of Korean learners' INoPs, how they change over time, and how they are connected with a measure of syntactic proficiency.

Chapter 5. Korean learners' long-term individual networks of practice (LInoPs)

This chapter aims to present both qualitative and quantitative research on Korean learners' journeys as well as to take a longitudinal perspective of those journeys. The chapter utilizes three core component concepts to explore KFLLs and KHLLs' Korean learning journeys, both from the outside looking in and also from the learners' own perspectives. The first concept, originally introduced in Chapter 4 (section 4.1), is investment (Norton Peirce, 1995). Norton Peirce in her inceptive study discussed how motivation, on its own, is an inadequate concept to completely capture the relationship of the language learner to the social world; the social context of the learner dramatically shapes the interactions that the learner may have with the target language and the people who speak it. She demonstrated that learners of a language may be highly motivated to learn a language, but their individual relationships and circumstances either prevented them from positive opportunities to use the language, or enriched them. Moreover, this concept of investment allowed flexibility, so the learners' investment could change over the short or long term, depending on the social relationships they held. Norton Peirce defined investment as "captur[ing] the relationship of the language learner to the changing social world" (1995; p. 10); this constitutes the framework for the current study, as KFLLs' and KHLLs' social relationships are described and the participants discuss how they were positive, negative, and/or changed over time.

Another focus factor in this chapter is the element of individual networks of practice (LInoPs; Zappa-Hollman & Duff, 2015; see Chapter 4). LInoPs were originally conceived as a way to diagram the social relationships of a language learner at a certain point in time, with the learner at the center and the relationships (in groups or individually) drawn in a web around the

learner. The relationships were categorized as strong or weak, and the whole of a learner's INoP was used to show how the learner was being socialized into academic practices and discourses.

In Chapter 4, the concept of INoPs was slightly modified and extended. It was originally employed in a second language learning context, specifically of Mexican exchange students completing a study abroad program at a Canadian university. In Chapter 4, it was applied to students in a foreign language learning context and a heritage language learning context.

Likewise, the Korean learners in this chapter are similar to those in Chapter 4; they are either English-dominant speakers who learned Korean for the first time in an American university, or first language Korean, English-dominant speakers who were exposed to Korean in the home and community growing up, and enrolled in a Korean for heritage learners class at an American university (heritage learners). Additionally, in the current study INoPs are used as a tool to investigate personal identity and investment in the target language (originally used to examine academic language socialization). Because of this, material resources that students use to study the target language or otherwise engage with the target language were added to INoPs as an extension. In studying identity and investment social relationships are very important and have a large impact on the learner. However material resources that the learner employs such as target language media (books, TV shows, movies, music, online communities, etc.) may also affect the learner's investment, and as such merit inclusion in the current study.

The further extension of INoPs undertaken in Chapter 5 is the widening of the concept to include more than the view of the INoP at one point in time. Zappa-Hollman and Duff's 2015 study focused on learners' INoPs during an academic exchange program. Chapter 4 focused on learners' INoPs at various points in the learners' Korean learning journeys, but just asked them to detail their social relationships and material resources at the time of the interviews. The data

collected for Chapter 5 asked learners to think about their entire Korean learning journeys from beginning to present. For the KHLLs, that meant discussing their circumstances as far back as young children, although for the KFLLs the journey may have just begun several years previous. This approach allowed the current study to see the INoPs, modified to be named long-term individual networks of practice (LINOps), from a comprehensive perspective. It also allowed us to gauge how the learners' INoPs have changed over time, a perspective only accessible through such an approach (although see the limitations of adopting such a viewpoint in section 5.6 below).

The third element of this chapter involves the measure of syntactic proficiency introduced in Chapter 3. Korean externally-headed relative clauses (KRCs) are a structure that was introduced to the current study participants in the intermediate-level Korean language classes such as the end of first year or the beginning or middle of second year. In heritage classes, students already have some familiarity with the structure but may not have studied it as a grammar point in a textbook; it was introduced at the beginning of the first year of heritage classes for the current participants. The same KRC test that was used in Chapter 3 is again used in this chapter; the current study participants took the test again two years after they initially completed it (as described in Chapter 3). The online test of both production and comprehension of KRCs (subject and object RCs) was the same except for a modification made to the production task (described below). Each participant had a total score for the test and their errors were characterized as various types (see O'Grady, et. al. [2001] and Chapter 3).

The chapter is organized into the following sections. Sections 5.1, 5.2, and 5.3 lay out the research questions, information about the participants, and the methods used in the current study, respectively. Section 5.4 lays out the complete results of the investigation and gives relevant

discussion; this section splits up into several subsections to lay out the results for each research question. Section 5.5 briefly reviews the principal conclusions of each research question and section 5.6 discusses the limitations, as well as some directions for further research, of the current study. Section 5.7 summarizes.

5.1 Research questions

The first goal of the current study is to expand on the notion of INoPs from the study in Chapter 4 to the broader notion of long-term INoPs (LINOps), which have the potential to show and help understand how learners' target-language relationships and use of resources change over time. The current study aims to be as broad in scope as possible when collecting information about LINOps, and leave collection of specific and narrowly focused information for future research. The first step here is to see the whole view of Korean learners' language-related journeys, using INoPs as a springboard but ultimately collecting information that captures INoPs over time rather than at one point in time. Broadly, the study aims to collect at least some general information about each social relationship or material resource in each learner's LINOps, but due to the broad scope of the question, information about some nodes may be more or less detailed than others.

The predicted nodes that will appear on participants' LINOps come from the results of the study presented in Chapter 4, where learners' INoPs were investigated. Most commonly, learners reported social relationships with their classmates (they were all enrolled in Korean classes at the time), family (if they were KHLLs), language partners, and friends also interested in learning Korean or connected to Korea in some way. The resources that participants reported using most frequently were online, especially online dictionaries and news sites, as well as resources related

to Korean pop culture, especially pop music and TV shows/movies. The LInoPs investigated for the current study are potentially different than those INoPs, however, as the participants in the current study were not necessarily enrolled in a Korean class at the time of the study, and the results of the Chapter 4 study indicated that interest in Korean pop music, TV shows, and movies tended to decline or turn into other interests as time went on. The KFLL participants in the current study started their Korean-learning journeys at least two years prior, and the KHLL participants in the current study are at least 2 years removed from their first university-level Korean language class, so their interests are potentially quite different from those recorded in Chapter 4.

The second goal of the current study is similar to the second goal of the INoP study in Chapter 4, that is, to see the LInoP from the learner's perspective in terms of helpfulness of the various social relationships and material resources present in the LInoP. The participants are asked to report, from their perspective, which nodes on their LInoPs were the most and least helpful, both in terms of advancing the participant's general Korean language proficiency, as well as helping the participant sustain their investment in studying, learning, or using Korean over time. By asking participants to report on the relative helpfulness of their social relationships and material resources in this way, the current study aims to contribute a learner-centered voice to the research, which will hopefully be useful in any continued research or research-informed pedagogical practices derived from this study.

In the study on KFLLs' INoPs in Chapter 4, the social relationships that participants pointed to as the most helpful were encouraging friends, language partners, and other Korean learning students. One participant noted that her friends had goals for her Korean learning and future career prospects, which helped her sustain her motivation to study Korean. Several

participants pointed to language partners as the most helpful people in their networks when it came to increasing their general language proficiency, since language partners provided authentic conversation practice on a regular basis. Other factors for relationships which were helpful to learners' general language proficiency were interacting with people who couldn't speak English, people with personalities that meshed well with the learner's personality, and other Korean learners who had a similar proficiency in Korean compared to the learner. I predict that the answers to this research question in the current study will be more varied than the results from the study in Chapter 4, due to LInoPs covering a longer time of participants' Korean learning journeys. The inclusion of KHLLs' LInoPs will also contribute different perspectives--perhaps KHLLs have different views on who motivates them and who helps them improve their Korean the most.

The third goal of the current study is to show that there is a relationship between learners' LInoPs and a narrow measure of their syntactic proficiency (the Korean relative clause test from Chapter 3). This is a very large and broad goal because the natures of LInoPs is that they are all-encompassing of learners' language learning journeys, and, at least in the current study, insufficient detail about the LInoPs was acquired to accurately and consistently measure them in any way. The current study will aim to show, however, that the beginnings of a relationship between the LInoPs and syntactic proficiency are there, and therefore the potential for more research concerning that relationship is also plausible. Specifically, the current study will allow themes to emerge from the LInoP interview data that have plausibly affected the participants' investment in learning or using Korean in a positive or negative way. These themes will be scored and correlated with the participants' scores on the KRC test. For example, if some of the participants report that they have a significant interest in Korean popular media and consume it

often, this has plausibly had a positive effect on their investment to learn Korean because it gives the participants a desire to engage and a closer relationship to a hobby that uses Korean. These themes that emerge will be the way that the LInoPs are quantified in order to discover any potential connection they may have to the KRC test scores.

There have been many studies relating some aspect of a learner's social network to a measure of their language proficiency (Isabelli-García, 2006; Kurata, 2004; Wiklund, 2002; Smith, 2002; Ferenz, 2005; etc.; see Chapter 4, section 4.1.1.1.2 for a summary of these and other related literature). On the whole, these studies were able to connect the incorporation into social networks, stronger relationships within social networks, the inclusion of certain types of people within social networks, and other factors with motivation, communicative competence, language learning, and other results which are closely tied to the notion of strong investment. The prediction for this research question, then, is that participants with more positive themes present in their LInoPs will also have higher scores on the KRC test. Although research on the valence of social networks (positive/negative) does not appear in those previous studies, the analogy is that a more positive valence in a social network is another indicator of a strong network, just as more nodes, more frequent interaction with nodes, and many nodes who are fluent speakers of the target language are also indicators of strong social networks.

In conclusion, the current study has three immediate questions to answer, as listed below.

In the next section, the Korean learners who participated in the study are introduced.

1. What is the nature of KFLs' and KHLLs' LInoPs?
2. Which relationships or resources do KFLs and KHLLs think are more or less helpful? What are the characteristics of these relationships or resources that make them more or less helpful, from the learner's perspective?
3. Is there a potential correlation between a measure of syntactic proficiency and the nature of the learners' LInoPs?

5.2 Participants

Data from four KFLL and six KHLL participants were considered for this experiment. All ten participants took an initial relative clause test (the results of which are reported on in Chapter 3), then two years later took a follow-up relative clause test and were interviewed about their L1NoPs. Participants were initially recruited from Korean language classes at a large American university. At the time of the initial relative clause test, the KFLL participants were enrolled in their sixth quarter (end of second year) of the non-heritage Korean language class, and the KHLL participants were enrolled in their second or third quarter (end of first year; some participants may have been able to skip the first quarter) of the heritage Korean language class. The one exception to this pattern was one KHLL participant who was not enrolled in the heritage language class at the time of the initial relative clause test; she had taken the first two quarters of the heritage language class sequence the year before (Zoe).

The four KFLL participants were all 20 or 21 years old at the time of the initial relative clause test. Three of them (Ben, Isabella, and Calvin) reported being native or first language English speakers, and one of them (Logan) spoke Cantonese until age 3 or 4 when he began learning English. Ben and Calvin reported some Spanish language learning in high school and Isabella reported some French learning in elementary school, but none of them had prior exposure to Korean until shortly before enrolling in the first year of non-heritage Korean language courses at the university.

The six KHLL participants were all between 18 and 21 years old at the time of the initial relative clause test. Some of them (Lara, Emily, Ji Ah, and Allison) reported learning other languages like Chinese and Spanish in junior high, high school, and university, but all were exposed to Korean from birth and experienced English onset at the same time or shortly

thereafter. Kyoung Mi, Ji Ah, Allison, and Lara experienced English onset between 3 and 6 years old. Emily reported that her family started speaking English in the home when she was about two years old, to prepare her for school in English. Zoe reported that her family used both English and Korean in the home since she was born.

Ben (a KFLL) and Emily (a KHLL) were the only participants to have completed the initial relative clause test, an interview about their Korean-learning INoP one year after, the follow-up relative clause test a year after that, and the LInoP interview immediately following the follow-up relative clause test. Originally, Ben and Emily were the participants of a study with a strictly longitudinal design where the participants were interviewed both at the initial and the follow-up relative clause tests, and their INoPs from both times compared. However, it was determined that the initial and the follow-up INoP interviews were not directly comparable and it did not make sense to talk about such small, narrow slices of their Korean learning journeys in isolation from the richness of their networks both in between the two interviews as well as well before the initial interview. The study developed into the LInoP interview for the other participants in order to look at the INoPs holistically.

Background information on the ten participants in the current study is summarized in the table below.

Table 1. Participant background information

Name	Learner type	Age at initial syntax test	Language background reported facts
Ben	KFLL	20	<ul style="list-style-type: none"> • First language English • High school Spanish • One year college Japanese • Enrolled in 1st year Korean at 18yo • Took 4 years of Korean classes at college and had 2 summer abroad experiences in Korea • Started teaching English in Korea after college
Isabella	KFLL	20	<ul style="list-style-type: none"> • First language English • Elementary school French • Started learning Korean at 17yo • Enrolled in 1st year Korean at 19yo (summer intensive class) • Took 2nd year Korean classes • Studied abroad in Korea for one year
Calvin	KFLL	21	<ul style="list-style-type: none"> • First language English • High school and college Spanish • Enrolled in 1st year Korean at 19yo • Took 3 years of Korean classes at college • Teaching English in Korea after college
Logan	KFLL	21	<ul style="list-style-type: none"> • First language Cantonese • English acquired at age 3-4 years • Enrolled in 1st year Korean at 19yo • Took 2 years of Korean classes in college • Stopped studying Korean after classes
Lara	KHLL	20	<ul style="list-style-type: none"> • First language Korean • Mostly/only Korean in the home • English acquired at age 6 years • Korean weekend school in elementary • Junior high and college Mandarin • Enrolled in heritage class at 19yo • Summer abroad experience
Emily	KHLL	19	<ul style="list-style-type: none"> • First language Korean • English acquired at age 2 years • English only in the home in childhood • Korean weekend school years off-and-on

			<ul style="list-style-type: none"> • High school Spanish • Enrolled in heritage class as sophomore • Enrolled in mixed heritage/non-heritage Korean classes as junior and as senior • Summer abroad experience
Zoe	KHLL	21	<ul style="list-style-type: none"> • First languages English and Korean • Parents speak Korean and English in the home (about half and half) • Zoe speaks mostly English in the home • Korean weekend school for a couple of years in elementary school • Enrolled in heritage class at 20yo
Ji Ah	KHLL	18	<ul style="list-style-type: none"> • First language Korean • Mostly Korean in the home with parents; English with older sibling • English acquired at age 5 years • 1 year Korean weekend school in elementary • High school Spanish • Enrolled in heritage class at 17yo
Allison	KHLL	20	<ul style="list-style-type: none"> • First language Korean • Mostly/only Korean in the home • English acquired at age 5 years • 2 years Korean weekend school in junior high • Middle school, high school Japanese • College Spanish • Enrolled in heritage class at 19yo
Kyoung Mi	KHLL	21	<ul style="list-style-type: none"> • First language Korean • Mostly Korean in the home with parents; English with younger sibling • English acquired at age 3 years • Some years of Korean weekend school in elementary • Enrolled in heritage class at 20yo

5.3 Methods

The current study involved participants in three parts: an initial relative clause test, a follow-up relative clause test (approximately two years after the initial one), and a semi-structured qualitative interview about the participant's long-term INoP (LInoP). The initial relative clause test is described in detail in Chapter 3. Briefly, it was an online Google forms survey that collected some demographic information about the participant (age, learner status, and history of language learning) as well as tested the participants on their written production and aural comprehension of relative clauses in Korean. The design of the written production task followed Lee-Ellis (2011) but with newly constructed images; the participants were asked to look at an image with multiple figures, one of which was marked by a star, and use a relative clause to indicate the figure with the star. The participants typed their answers into a text box that finished the sentence "The star is on the _____" in Korean, which would elicit answers such as "the woman who is punching the man." The full set of materials used in the production task, as well as the directions for the task, are included in Appendix B. The design of the aural comprehension task followed O'Grady, et. al. (2000; 2001) with newly recorded audio files; the participants were asked to look at an image with multiple figures and listen to a recording of a relative clause, then choose the figure that was indicated by the recording. See Appendix C for the complete set of comprehension task materials.

The follow-up relative clause test modified the original design slightly based on general feedback. The comprehension task stayed the same, but the production task was changed. Originally, participants typed their answers (in the form of a relative clause) into a text box, as described above. For the modified task, the participants chose a multiple choice option out of five. Along with an option for "I'm not sure," each multiple choice option was a relative clause

pertaining to the appropriate image. One option was the correct relative clause, one option switched the particle on the embedded argument, one option switched the embedded and the head arguments but retained the correct particle on the embedded argument, and one option switched the embedded and the head arguments as well as switched the particle on the embedded argument. The advantage to this switch was, first, to eliminate the possibility of typos in the participants' answers as a possible source of incorrectness. Second, it eliminated the strategy that some participants used in the initial test, where the participant either dropped the embedded argument or dropped the particle on the embedded argument when forming relative clauses. Korean allows for embedded argument drop and embedded argument particle drop (when the embedded argument is the object and the embedded argument particle is the object marker - ul/lul). This optionality created ambiguity between correct and incorrect answers on the initial relative clause test, and was therefore corrected for on the follow-up test. This means that a participant's initial and follow-up tests are not directly comparable, however.

Two participants in the current study had also participated in the INoP study described in Chapter 4. Ben (KFLL) and Emily (KHLL) filled out a preliminary survey asking them to list their INoP social contacts and material resources (the full survey can be found in Appendix D). They were then asked to participate in an hour-long, semi-structured, qualitative interview that focused on giving more details about their INoPs and getting their opinions on which nodes in their INoPs they thought were the most and least helpful for both continued investment in learning or using Korean as well as overall proficiency development. The result of the survey and interview was a diagram of both participants' INoPs as they looked about a year after they took the initial relative clause test, complete with measures of how much time per week each participant reported spending with each node, as well as what percent of the time each

connection was spent in Korean. Ben's INoP was included in the results in Chapter 4, which focused on KFLs; Emily's INoP was not.

All ten participants in the current study took part in hour-long semi-structured qualitative interviews (following Rubin & Rubin [2012]) approximately two years after taking the initial relative clause test, and less than a month after taking the follow-up relative clause test. The interviews were all audio recorded and subsequently transcribed. Although the focus of these interviews was similar to those described in Chapter 4, they were broader in scope and asked the participants to discuss their long-term INoPs (LINOPs), which would give a bigger picture of their entire Korean learning journeys. At the beginning of each interview, the participant was asked to give an overall listing of all the people they interacted with, and all the material resources that they used, that related to Korean in some way. The interviewer sketched a rough LINO diagram during the interview, and sometimes asked the participant to elaborate on nodes along the way. After the initial discussion was over and the LINO was roughly finished, the participant was asked which nodes were the most and least helpful in two separate dimensions: 1) sustaining investment or motivation to learn Korean, and 2) advancing the participant's general language proficiency. At the very end of the interview, the participant was given the opportunity to ask questions about or discuss the relative clause test they had previously taken.

5.4 Results and discussion

The results of the current study are presented as four subsections below. In the first two, the most common themes from the KFL LINO interviews (5.4.1) and the most common themes from the KHLL LINO interviews (5.4.1) are discussed. These themes were selected as the most frequently appearing nodes on both groups' LINO diagrams. They are not meant to be

an exhaustive list of the nodes that the KFLL or KHLL participants reported; rather, I attempt to represent the core experiences of the KFLL and KHLL participants, especially the experiences that may also apply more broadly to other KFLLs and KHLLs. These themes are a window into the sites where Korean learners struggle with their identities as Korean learners and Korean Americans.

In the third subsection below, KFLLs' and KHLLs' perspectives on their own Korean learning journeys are presented through their answers to questions about which nodes provided the most and least help to them regarding both Korean language proficiency and sustained motivation to continue studying or using Korean. The learners' comments on these topics begin to reveal how the learners have experienced changing investment in learning Korean over time.

In the fourth subsection below, participants' LInoPs are quantified into a net LInoP score based on common themes that emerged and whether those themes would have positively or negatively impacted the learner's Korean learning journey. Then, the LInoP scores are correlated with the participants' scores on a follow-up Korean relative clause (KRC) test. The results show that a more positive LInoP score is correlated with a higher KRC test score. This result is not presented as a robust and definitive answer to the question of whether LInoPs can be quantified and related to a measure of proficiency, however; instead, it should be taken as the first step toward showing a potential relationship between LInoPs and proficiency (but see section 5.6 below for limitations).

5.4.1 KFLL LInoP themes

Of the many nodes from the four KFLLs' LInoP diagrams, five themes emerged, each of them mentioned by at least three of the four KFLLs. Each of the themes below indicate a site of

opportunity for identity negotiation as a Korean learner, and each of the themes shows that the nodes involved have the capacity to increase investment, by being positive or equitable relationships for the learners, as well as the capacity to decrease investment, by exhibiting negativity toward the learners, creating imbalanced power in relationships, or discouraging learning and free expression.

5.4.1.1 Original Motivations

Every KFLL has had a starting point when they were first introduced to Korean, and for three of the four KFLL participants in this study their first connection to Korean was through a Korean-speaking friend. Calvin had a high school friend who was Korean and got Calvin interested in Korean culture and music; as a result, Calvin took a summer vacation to Korea after high school graduation with his friend. The positive experience from that trip, along with the enjoyment from self-studying some Hangul, led Calvin to enroll in the first year Korean language classes his first term in college.

The other three KFLLs also had Korean acquaintances, but it was not the acquaintances themselves that sparked interest in learning Korean, but rather that the acquaintances introduced the wide world of Korean pop culture to the KFLLs, whose subsequent interest in it would serve as the impetus to take Korean classes in college. Logan was exposed to K-pop and Korean dramas through friends in high school, and that was one of the reasons he chose to take Korean in college. Ben said that “one of the main reasons I started learning Korean was because I wanted to better understand Korean music” (p. 10). Isabella had a friend in middle school that really started a major interest in Korean that would envelop Isabella’s family as well, and drive her to

take some Korean classes both before college and in college. She describes her initial experience with Korean below:

I started learning Korean ... back here in 2012... I watched TV shows. I watched a lot of reality like Running Man. ... I had a Korean friend in middle school who moved back to Korea and so that was the first time I became aware of it because, obviously, I have no Korean heritage at all. Yes, and so I just started watching it, and then, the more I watched, of course, I started learning some of the language. It was, also, along with my sisters, until we found out that we could talk to each other without my parents understanding, that sort of stuff. (Isabella, p. 1)

This common set of original motivations indicates that KFLLs may experience K-pop or other Korean popular media as their first site of identity construction as a Korean learner. This experience was positive for these participants, and indicated a high level of investment at the beginning of their formal classroom Korean studies. Interest in K-pop is not a social relationship necessarily but rather consumption of media, so the high level of investment at the beginning of studying Korean in college may be because they have not experienced any power struggles in a Korean social relationship yet.

5.4.1.2 Korean Conversation Student Groups

Out of the four KFLL participants, Ben, Calvin, and Isabella all reported experience with a Korean Conversation Group during their time taking Korean classes in college. They in fact attended the same Korean Conversation Group, although not always at the same times. Their Korean Conversation Group was a group of mostly KFLLs who came together twice a week in a popular student hangout location to chat in Korean informally. Occasionally a fluent Korean speaker would join, but that was not always the case. Korean learners of all levels were

welcome, but in practice students from the first and second year classes would make up the majority of the group.

Both Ben and Calvin said that they had tried to go to the Korean Conversation Group meetings at the beginning of their first years in Korean classes, but quickly stopped going due to lack of enough language foundation to feel comfortable. Calvin also reported that the group was too boring; since members changed frequently they had to introduce themselves at every meeting, which got tedious. Ben and Isabella made several KFLL friends from the group (Ben started going again during his second year and stayed on through his third year; Isabella participated in her second year) and they both reported that those friendships turned into real friendships that were sustained outside of the group and still continue today. Both Calvin and Ben noted that the group's conversation would turn to English frequently, which was also what caused Calvin, and eventually Ben, to quit.

The existence of an informal, student-run conversation group had both positive and negative (or at least non-positive) effects on these three participants. Isabella had the highest opinion of it of the three, but she went to Korea for a year after her second year in class and in the club, so she did not experience the club at a higher proficiency level. Ben, who tried to go in his first year, and then really joined the club all through his second and third years, showed that there may be a sweet spot for Korean learners to take full advantage of such clubs: during first year there is just not enough Korean to have any sort of free conversation, but in second and third years, a conversation club might be more beneficial, especially for making lasting friendships with other students with similar interests. These experiences suggest that if students have a balanced power dynamic in such a group (in that they are all roughly at the same level),

such a club might help sustain investment in using Korean, although the effects of this type of club must also be highly variable from student to student, school to school.

5.4.1.3 Language Exchange Partners

Language partners are a frequently recommended (and sometimes required) part of taking language classes at universities. Teachers recommend them because the students can get more individual attention and also conversation practice, which the class itself might not focus on. In the classes that Calvin, Ben, Logan, and Isabella attended, language partners were required for the first and second years of study. Calvin, Ben, and Logan each brought up language partner experiences in our conversations.

The helpful aspect of Logan's relationship with his language partner was that his language partner recommended appropriate Korean songs that Logan could study, since Logan wanted to use songs as a study tool and needed slower songs to have a higher chance of understanding them. One of Calvin's language partners was nice and helpful. Ben's good relationships with language partners were when they would have interests in common, were closer in age, and had social skills that kept conversation flowing (in English or Korean).

Having helpful language partners was not always the case for these students, however. Calvin reported that his relationship with his language partner in his second year was strained because they didn't really know what to talk about and Calvin didn't have enough Korean to keep the conversation going. Calvin also said, however, that it was somewhat helpful to have a language partner in second year as well as first year. Ben had several language partners, sometimes getting a new one every quarter with the language partner program offered by another

department. He reported outstanding relationships with some, but also awkward relationships when they didn't have much in common and therefore didn't have a lot to talk about.

Overall, language partners were not people who these KFLs pointed to as having a large impact (positive or negative) on their investment to study Korean. However, they are an omnipresent part of the KFL journey, and therefore have the potential to play a bigger role if the relationships are cultivated and implemented correctly to complement the individual language learner's needs.

5.4.1.4 Goals

Several previous studies looked at the motivations of students who want to learn Korean (Nam, 2017; see also Chapter 2). In order to relate some of the LInoP data collected here with some of the previous research, we asked the KFLs for their short- and long-term goals for their Korean at the time of our interviews (two years after the initial syntax test).

Isabella, who was still enrolled in university, mentioned that her short-term goal was to do more study abroad in Korea. At the time of the interview, she had just completed a year of enrollment in a Korean university after having taken the equivalent of two years of Korean study. Although there were some ways in which her study abroad experience was not ideal (see section 5.4.3.2 below), overall it was so positive for her that she wanted to continue it. Calvin, Ben, and Logan had all graduated by the time of our interviews. Logan had completed two years of Korean in his junior and senior years before graduating; Calvin had completed three and Ben had completed four. Both Calvin and Ben said that their short-term goal was to teach English in Korea for some time (Calvin had already been teaching for over a year, and Ben was about to leave).

Lee (2014) noted that a common reason for KFLLs to study Korean is for business opportunities and future job prospects. Indeed, three of the four KFLLs in this study cited having Korean involved in their careers as one of their long-term goals: Logan, Calvin (translation), and Isabella (diplomatic relations). Ben didn't have a concrete idea of his long-term goal for Korean except for that he wanted to increase his listening comprehension to make his quality of life smoother and "to make it easier to meet and interact with new Korean friends" (p. 25). He also wanted to improve his general conversation skills so that he could have better Korean interactions with his girlfriend, a native Korean speaker. Ben's long term goal of higher conversational ability towards smoother social interaction aligns with the reason cited in Thomas (2010), that one motivation to study Korean is to be able to communicate with Korean people.

5.4.2 KHLL LInoP themes

The six KHLL participants in this study all had a typical heritage learner profile. They all acquired Korean first or simultaneously with English, went to grade school where English became their dominant language (even though some still spoke Korean exclusively in the home, most began speaking a mix of both or only English to their parents), and, for various reasons, chose to enroll in the heritage classes provided by the university. Apart from that, however, the KHLLs reported a wide variety of attitudes toward Korean and motivations for being more or less interested in continuing Korean study. The three themes below show some of the similarities and differences among these six diverse journeys.

5.4.2.1 Korean Weekend School

The dominant similarity (apart from the aspects of their heritage learner profile mentioned above) among LInoPs of these KHLLs was the presence of some time spent in a weekend Korean school. These Korean schools (as described by Park [2008] and Zhou & Kim [2006]) are usually put on by a local community Korean church and classes occur once a week. There may be several levels of ability separated out by classes, events associated with the school, and a variety of study materials that the students work with, but at the lower levels the immediate goal is to provide Korean literacy instruction and allow students to retain their speaking skills in Korean. All six KHLL participants in the current study reported that they attended such a weekend Korean school for at least some time in their childhood, from elementary school to early high school. Allison retained a positive view of her time at the school, but some said that they have negative feelings looking back on it (Kyoung Mi and Ji Ah, also see section 5.4.3.2 below), perhaps as a result of being forced to attend and give up weekend time, or because they felt they didn't learn much at the school. Emily alone said that it wasn't fun at the time, but now she is grateful for the experience, because it allowed her to retain Korean skills that she later built on in the heritage series.

5.4.2.2 Original Motivations

The six KHLL participants revealed several different motivations to enroll in heritage Korean classes in college. Emily reported that she was told by her parents that she needed to take Korean for her language requirement, before learning any other language. But Kyoung Mi, Allison, Lara, and Ji Ah all said that they enrolled out of their own volition, and Allison and Lara said they were looking for an easy class or something they had studied before. Zoe used heritage Korean to fulfill her language requirement as well.

5.4.2.3 Goals

In comparison to the KFLLs, who cited either career goals or social goals for their learning, the KHLLs cited a mix of family-related, media-related, and career-related goals. Kyoung Mi, Allison, Zoe, and Emily described their goals as more or less related to communicating more smoothly with their families, especially enough to effortlessly understand daily conversations and increase the percentage of Korean they speak with relatives. Emily also cited a career goal for her Korean; she is looking to get into the field of Korean-American diplomatic relations and feels like a level of Korean language proficiency would help even though it would not be required for most jobs. Finally, Ji Ah said that her goal for her Korean usage is to get to a level where she can understand more media related to K-pop, especially Twitter and fan cafe posts (instead of having to wait for English translations to be made).

The LINOps for both KFLLs and KHLLs showed much more detail on the individual level than we are able to report here. However, the several themes that emerged from the interviews in the above two sections represent a starting point for more research and show the commonalities that may be present in KFLL and KHLL journeys. In the next section, the participants' answers to specific questions asked in the interviews are presented and discussed.

5.4.3 Korean learners' perspectives

In the next two subsections, all ten participants' comments about which nodes in their LINOps were most and least helpful are presented and discussed. The participants were all asked a version of the following four questions towards the end of the interviews:

1. Which node (in your LINOp diagram) would you say has been the most helpful to you in terms of raising your Korean proficiency?

2. Which node (in your LInoP diagram) would you say has been the least helpful to you in terms of raising your Korean proficiency?
3. Which node (in your LInoP diagram) would you say has been the most helpful to you in terms of keeping you motivated to continue studying, learning, or using Korean?
4. Which node (in your LInoP diagram) would you say has been the least helpful to you in terms of keeping you motivated to continue studying, learning, or using Korean?

Sometimes the participants didn't point to any specific node (a person, a group of people, a class, an activity, a material resource, etc.) that fit any of those categories. Sometimes the participants pointed to more than one node as an answer. Many of the participants seemed to conflate the ideas of "most helpful for raising proficiency" and "most helpful for keeping you motivated" (as well as their "least helpful" counterparts) by making comments about how the node they pointed to for "most helpful for proficiency" was really motivating, for example. Because of this, the similar questions are presented in the same subsections below. When a participant commented that a particular node was specifically motivating, or helpful for proficiency, that is reported.

5.4.3.1 Most helpful nodes for proficiency and sustaining investment

Of the many nodes pointed to by the participants in answer to the questions about helpful nodes, three categories of nodes were referred to the most and were the most discussed by the participants in general. The first one discussed below, college language classes and instructors, was by far the most common node pointed out by participants, both KFLLs and KHLLs. They said that their college language classes and instructors had the biggest impact on being helpful by raising their skills in Korean, as well as on being helpful by providing a welcoming environment in which they were able to sustain their investment in Korean. The second node discussed below

is having a solid language skills foundation before studying abroad in order to help the students make the most out of the study abroad experience. Finally, the third node below was only mentioned by KHLLs (the first two were common across both learner types), but was so commonly reported and central to the KHLLs' Korean-learning journeys that it merited inclusion here.

5.4.3.1.1 College Language Classes and Instructors

By far the most mentioned node, noted by both KFLLs and KHLLs, that contributed positively to the students' Korean language proficiency as well as their motivation, was Lim Seonsaengnim (Teacher Lim). Lim Seonsaengnim taught both Korean as a foreign language and Korean as a heritage language classes at the time these students were enrolled, and every student in the current study had her as a teacher for at least a year. That she was cited as a positive, outstanding node by eight out of the ten students indicates that a teacher's role has the potential to have a large impact on both helping students learn, as well as allowing them to sustain their investment through a classroom environment (however, see section 5.4.3.2 below for mentions of how teachers may instead have a negative impact).

Isabella, Logan, and Ben all pointed to Lim Seonsaengnim as the node which had the largest helpful impact on their Korean language proficiency out of all the nodes in their LINOps. They were all in the same second year Korean course that Lim Seonsaengnim taught (and Isabella had also been in Lim Seonsaengnim's summer intensive first year class). Logan attributed her impact to "the way she drilled [the exercises] and personally pushed" him (p. 15), and noted that she was more strict compared to his first year teacher, but also more caring; "She was just being hard and strict just because she wants you to have bigger improvements. I

appreciate the way she was teaching” (p. 10). Isabella echoed Logan’s sentiment and shared that Lim Seonsaengnim was “a little hard on students. She expected a lot out of us, but she was also really caring. ... She was the person who really set me up to go ahead and succeed with it after I had my own introduction to it [Korean]” (p. 11).

Ben pointed out that one of the leading qualities that made Lim Seonsaengnim a distinguished teacher was her ability to gauge her students’ use of a certain grammar point and know when to move on, a sentiment echoed by several other students as well. Ben said:

She was friendly and made us work hard, but she never moved on until she felt we had adequately covered how to reliably use an important grammar point correctly. ... I think my language abilities in Korean had the largest climb during that year. (Ben, p. 26)

Lim Seonsaengnim also exhibited that quality of teaching in the heritage classes. Zoe noted that:

I really liked her because you could tell right off the bat that she was there because she cared about us learning. It was hard for her because everybody was in such a different place. ... I feel like her lesson plan was always transforming as she went. Just based on what we needed or what we were struggling with, which is why I really appreciate her too because I think in that way, because she was trying to cater for us, that’s how you could tell that she cared. (Zoe, p. 15)

Logan shared that she would even accommodate individual students in different ways, saying that “She knows my speaking is really poor versus my writing. Many times, when we did the 15-minute speeches in her office, she would extend my 15 minutes to be 20 or 25” (p. 10). Additionally, she made herself available to students and had encouraging words to say to them if they ever came to her outside of class. She genuinely cared about each student’s individual Korean-learning journey, as well as the difficulties they would face as students. Calvin had some

hard times in his second year classes and lost some investment because the material was a bit too difficult at times for him to engage with. He reported that:

If I had a problem, I would go to her office and talk to her about it. She was very good at being motivating. ... She always helped me if I had a question or a problem, and she would reassure me that everything's not going terribly. ... She would give me helpful tips and resources on how to keep learning and studying Korean.
(Calvin, pp. 15-16)

Both KFLLs and KHLLs pointed to Lim Seonsaengnim's abilities to 1) change her lesson plan, teaching style, and/or accommodations for both whole classes and individual students, 2) care about students' wellbeing, and 3) push students enough to make their Korean language skills better. These qualities led to students' overall positive views of Lim Seonsaengnim herself as well as her classes. Even though these students were only taught by her for a year, the fact that they chose her over the other teachers they may have had shows that she did have a large impact on their Korean learning journeys. Even though many students had to stop taking Korean classes after one or two years (due to schedule restrictions, graduation, study abroad programs, etc.), Lim Seonsaengnim created a classroom environment where students' investment in Korean could flourish.

5.4.3.1.2 Study Abroad Programs after a Solid Foundation

Isabella, Emily, and Ben were three of the students who had taken some form of study abroad program in Korea after taking some Korean language classes in college. Ben took two summers in Korea, after his second and third years; Emily took a summer after her third year; Isabella went for a year in an international program at a large Korean university after her second year. They were all in different programs and some of the time they spent in Korea was on vacation and not taking classes at all. Despite their varying experiences with their programs,

however, they all pointed out that their study abroad experiences were helpful to their overall Korean language proficiency, particularly pointing out that it was because they had had a solid Korean language foundation, from several years of classes at university, before they took on the immersion experience.

Emily, a KHLL, reported that her thinking ability was the part of her proficiency that shot up during her abroad experience. Ben, although he also attributed his proficiency gains to other aspects of his study abroad experiences such as his friendly teacher, placed into a higher conversation class level than most students and would not have placed in such a high level of classes in Korea if he had not had so much of a solid foundation in Korean skills from college. Isabella discussed this aspect the most explicitly of the three:

Studying here at [the university], the class I had was definitely -- It was structured to learn. But then applying it in Korea, I think, mostly, just that sequence was important. I don't really single one out as being more important than the other one. I think that they just worked really well. Having a pretty intensive background and then going and being able to apply it. It really worked well, because if you're just learning in Korea, it's hard because you have everything pulled out from under you when you learn how to say, 'I want to eat rice,' and then you go try to use that in a restaurant and they don't understand you. Since I had gotten my pronunciation to a point and I was able to actually use the stuff that I learned, I think that that was really helpful. (Isabella, pp. 10-11)

Isabella saw during her study abroad experience that her foundation, especially her developed pronunciation skills, put her ahead of other international students who started studying the language at a lower level while they were in Korea. She noticed that, even though one could start from scratch and learn a lot while abroad, it took comparatively less stress for her since she could already cover her essential needs (such as going to restaurants). In general, students who do a couple of years of studying before they go into an immersion environment may enable more equitable circumstances and relationships while using the language in their new environment,

and therefore increase and sustain students' investment. When students are thrown into a situation without the foundational language skills, they may feel more powerless and the struggle of daily situations may cause them to become demotivated or experience a rejection of studying the language.

5.4.3.1.3 Family and Identity Negotiation

The final theme presented here that emerged from the participants discussing the most helpful aspects of their journeys that positively impacted them only applies to KHLLs. They frequently talked in our discussions about how relationships with family members, and building and negotiating personal identities as Korean and as English speakers, while not uniformly positive throughout their whole journeys, settled in a positive place at the time of our interviews. Although here I discuss family relationships and identity negotiation experiences relatively separately, these two themes broadly overlap and an example of one does not preclude the other.

Emily, Ji Ah, Lara, and Allison all brought up family relationships as the relationships that have helped them the most throughout their journeys to sustain their investment in Korean. Some family members, like Emily's grandfather, don't speak any English and so in order to deepen a personal relationship with those family members the KHLLs strive to learn more Korean. Some family members, like Allison's mother and all of Ji Ah's family, have some degree of English but Korean is the dominant language and communication may be difficult and cause problems for the KHLL. Allison described her relationship with her mother as frustrating at times because of Allison's limited Korean, when she meant to say one thing but her mother would understand another and the two would have arguments. One time after such a situation, Allison noted that "So many of those arguments I've had with her that really wouldn't have

become arguments if I had known Korean a little bit better and chosen my words more carefully,” and, after one such situation, she said to herself, “Now, this is stupid. I’m going to learn Korean so I don’t make her like that ever again” (p. 19). Ji Ah also noted that most of her investment in Korean over time came from a desire to communicate with her family better, but characterized it as her feeling more pressured to get better at Korean because that’s all her family (including her close extended family) used. She said she feels frustrated when they speak Korean to her and she has to resort to English to speak to them, and said that she “should learn more Korean to fit in” (p. 16).

Several KHLLs also talked about their personal identities as Koreans and what being Korean, or speaking Korean, means to them. Lara said that even though her parents speak English well enough and so she can choose to speak to them in English, she is trying to push herself to use more Korean with them because it makes her feel more connected to herself and her Korean context. She started doing so after doing a lot of self-reflection on her identity as a Korean American, and especially after she realized that she had been pushing back on or rejecting her Koreanness during elementary and junior high school. She also recounted a recent story about visiting her preschool-age cousin, whose family is very close with Lara’s own. Lara navigated her feelings about which language to speak to her young cousin during that visit. Lara wanted to speak English to her so that she would have less of a hard time in school, but her young cousin told her that they weren’t going to speak in English. By seeing her close relative grow up in a relatively similar situation to her own, Lara felt more connected to her Korean upbringing and also felt more of an investment in using Korean.

Emily was another KHLL who made several references to her personal identity as a Korean American when talking about how invested she is in using Korean. When she was

young, she said, she felt good about knowing Korean and was even excited to take classes at her Korean weekend school in elementary. When she and her family took a vacation to Korea, however, she experienced disappointment because:

It was really obvious that I'm not Korean. It was very apparent to me that I didn't fit in their society. I was like, 'No, I will just be American.' For high school into college I was like, 'No Korean friends, nothing like that.' ... [I became] disinterested in the Korean community. (Emily, p. 6)

As a young child in her Korean family in America, she was invested in learning Korean because she felt accepted by her Korean family, so her relationships were positive and motivating. After feeling that she wasn't Korean after all, in her own eyes, her investment declined and she pushed back on learning Korean. She eventually took the heritage series classes in college because her father told her to choose Korean for her language requirement, but she was still not completely invested in Korean at the time. Then, she took a summer study abroad in the summer after her third year. Even though she still felt like she didn't completely fit in to Korean society, her investment grew as she came to terms with her own identity as a Korean American. She reflected:

Going to Korea I felt was experiencing what Korea is really like now. It was my first time there as an adult by myself and I felt like that helped me to develop more of a pride in my Korean identity, and also a desire to connect with my identity that I have suppressed for a really long time. I thought that it was honestly an eye-opening experience for me. (Emily, p. 2)

Emily, over the course of her LInoP, experienced both high and low levels of investment in learning Korean. This personal identity work also tied in with her family, especially her extended family, and how much she desired to communicate with them, which changed over time. Through Emily's Korean journey we can see how a KHLL's personal identity is so closely

tied to their investment, and by illuminating the relevant nodes on their LInoPs we can begin to have a conversation about Korean learners' identity and investment as a whole.

The participants in this study cited a wide variety of nodes on their LInoPs that helped them advance their Korean skills or sustained their investment in learning and using Korean. The three selected nodes above (college classes and instructors, study abroad programs after acquiring a solid language foundation, and family ties and personal identity) emerged as common themes mentioned by several participants each. Discussion of these nodes enables us to see the elements of those social relationships or other items that made them so helpful, according to the participants' own perspectives. Those discussions then lead to a better understanding of how investment changes over time, and how studying LInoPs may allow us to better do so.

5.4.3.2 Least helpful nodes for proficiency and sustaining investment

In addition to discussing the nodes in their LInoPs that helped them the most to learn Korean and to sustain their investment in it, participants also answered questions about which nodes were the least helpful in these areas. Although college language classes and instructors was by far the most commonly mentioned positive node, affecting both KFLLs and KHLLs and contributing to proficiency and investment, several participants also cited college language classes and instructors as having a negative impact on their proficiency and investment. The KHLLs also frequently brought up the classes they took (for varying lengths of time) in early childhood at community- or church-related Korean weekend schools as a node that negatively impacted them, although the negativity associated with those classes may change to positivity over time. Finally, both KFLLs and KHLLs told very interesting stories about their encounters

with Koreans and how they had an impact on their identities as Korean speakers, which subsequently affected how invested they were to study Korean at the time.

5.4.3.2.1 College Language Classes and Instructors

College Korean language classes and the instructors who taught them were more frequently cited as a positive rather than a negative impact on proficiency and investment. However, three participants did point to the potential negative impacts of classes and certain instructors. Calvin described how difficult studying Korean became, and how it impacted his motivation to learn, at one point in his journey. He said:

At some points it was just so hard, learning the grammar and all that stuff, I thought I would never figure it out. It's just really difficult and I kind of got, maybe it was from stress, anxiety or something. I would get demotivated and lose sight of my goal I guess, but these days in Korea with self-study and everything, I haven't really been that demotivated, I never wanted to quit.
(Calvin, p. 14)

Calvin's story highlights how the same classes can impact students differently. He shared all of his first three years of classes with Ben, but whereas Ben never mentioned that the first three years of classroom work became too overwhelming, Calvin did get to that point. Fortunately, even with classes lowering his investment in studying, he persisted and eventually found that a different study environment, self-studying while in an immersion environment, has allowed him to sustain his investment better.

Another pair of students enrolled in the same fourth year Korean literature class and had similar thoughts about it. Ben and Emily, the two participants who went the farthest in terms of length of study in college classes at the time of the interviews, both had three years of college classes under their belts and study abroad experiences as well by the time they entered this

particular class. It was a literature class, whereas the previous three years were specifically language classes, so it had a different focus than the students were used to. However it was the only fourth year Korean class available, and so it was fairly well-attended by both KFLLs and KHLLs who had been able to reach that level.

For both Ben and Emily, it was both the instructor's demeanor as well as the structure and focus of the course itself that had a negative impact on them. According to Ben, the instructor "seemed a bit out of touch with the students" and "[gave] excessive and tedious assignments" which resulted in him losing investment in studying Korean, or, in his words, "That class and the instructor actually made me dislike using Korean for the first time" (p. 27). When teachers do assign what their students perceive as too much work, or too difficult or tedious work, this discourages students over time. Regarding the classwork, Emily also remarked that "the requirements that she was asking for were a little too much and she wasn't offering any help or guidance" (p. 12). Since class is a very salient and large part of a student's Korean journey when they are enrolled in one, Emily's sentiment may indicate that one way students' investment can be boosted is, even if the work is hard, provide the students with adequate help or be flexible so the students can feel comfortable in that environment.

One particular practice of the class showed that what the teacher was offering and what the students wanted from the class were sometimes at odds with each other. The principal activities of in-class work and homework was translation and reading various types of Korean literature (poems, cartoons, short stories, articles, etc.). It was a literature class, and so, unlike the previous three years which focused on raising students' conversation, vocabulary, and grammar levels, this class exposed students to more authentic written Korean. Emily described how the exams in the class worked:

[The teacher said] ‘Listen to my translation dictation.’ We would ask her for every single word and only take her translation so we wouldn’t really memorize Korean, we’d be memorizing her translation. It’s not as impactful learning. ... If you could remember verbatim what she had said, then you would get the most points.

Here, Emily discussed how the students’ grades were tied to a measure of Korean that she didn’t feel was appropriate for a language class. Rather than focusing on exacting and perhaps biased translation, Emily (and presumably other students who were more interested in raising their general Korean proficiency rather than practice translation) wanted a better measure of her Korean abilities that would be more relevant to everyday situations, conversations, and texts that she would have to read and write. This possible clash in aims for the course indicates that programs that are able to provide a wider variety of courses at all levels (for example, offering a language-based fourth year as well as a literature-based fourth year) and also do a needs analysis of their students, may be better able to help students sustain investment in learning.

The examples of a generally pleasing, positive teacher and classroom experience in section 5.4.3.1 above, and the less well-received experiences here are just two examples of students and their perspectives of certain specific courses. The wider world of all Korean and all language courses is of course much broader and may not parallel either of these two descriptions. The emergence of a dichotomy of both positive and negative experiences in this small of a participant group, however, indicates that classroom environments and teachers are very complicated when it comes to individual students’ investment levels. The classroom has the potential to be the largest impact on a Korean learner’s entire LInoP, but whether it is the most helpful or the least helpful node in that diagram depends on many factors that still need to be investigated.

5.4.3.2.2 Childhood Korean Weekend School Classes

Although both KFLLs and KHLLs had the opportunity to experience college Korean classes, only KHLLs experienced the Korean weekend school classes they took, mostly to become literate in Korean, as young Korean American children. Some of the participants reported positive experiences with the Korean weekend schools. Allison, for example, willingly enrolled in one in junior high out of a desire to please her parents. Emily was also excited to take the class in elementary school before she experienced negativity associated with her personal identity and began rejecting Koreanness. Now, however, she noted that she appreciated her parents putting her through those classes.

Two KHLL participants reported more lackluster memories of their Korean weekend school days. Part of their unpleasant memories revolved around the fact that it was extra school, on the weekend, with lessons and homework, in addition to school already five days a week. As young children, they would have delighted in less school and Kyoung Mi, indeed, remembered complaining to her parents about it: “I told them multiple times that I didn’t want to go” (p. 6). On top of that, they both felt a sense of not learning much from the lessons. Ji Ah thought, “Why am I taking this class? I’m not gaining anything out of it. Why did my parents waste the money? ... I learned nothing” (p. 15). Kyoung Mi, similarly, thought that the school didn’t help her much and she also felt that the learning was minimal: “I just remember me feeling like, ‘Why am I here?’ I already know this” (p. 7). Ji Ah reported that the style of lessons didn’t suit her, and that “maybe [it was] a little boring as well, so it didn’t actually excite me about learning Korean that much” (p. 15).

It is hard to gauge the real impact of these Korean weekend school classes on the KHLL participants since we asked them to remember back to when they were young children and

reflect on how they felt then. Some KHLLs, understandably, had limited memories of that time and didn't give a strong opinion one way or the other about how Korean weekend school classes may have affected their proficiency or investment in Korean. However the two participants quoted above, Kyoung Mi and Ji Ah, did remember strongly that they were averse to going. Korean weekend school experiences weren't the central topic of our discussions of KHLLs' LInoPs, and to get a better idea of how they may affect their journeys, more focused research on Korean weekend schools is needed.

5.4.3.2.3 Experiences with Koreans and Identity

Both KFLLs and KHLLs told stories about their experiences meeting Korean people throughout the course of their Korean learning journeys. Many Koreans showed up as nodes on the students' LInoPs: teachers, language partners, girlfriends/boyfriends, friends during study abroad, family acquaintances in the local Korean-speaking community, etc. Although Korean-dominant people made up a sizeable portion of the LInoP diagrams, and meeting and speaking with Korean-dominant people is a necessary part of gaining Korean proficiency, several participants in the current study told how encounters with Koreans did not necessarily contribute to their proficiency or investment in Korean in a positive way.

Calvin, for example, made an observation about how Koreans are very accommodating to English speakers, especially in the most populous city of Seoul where Calvin lived after graduating. He remarked that living in Korea is very easy to do, especially as an English speaker, because most daily or necessary interactions require very little, low-level Korean and sometimes processes or signs are already available in English, or customer-facing attendants in various businesses already have some English proficiency to smooth along communication. Although

this helps the English speaker in Korea because they may encounter less difficulty, confusion, and stress on a day-to-day basis, Calvin noted that it was very bad for increasing his Korean proficiency. He left for Korea with three years of college classes under his belt, yet he felt he didn't need it all and was very seldom pushed to use it in Korea. Even if an English speaker does want to venture out in Korea and have more sustained conversations with Koreans, however, they may find that hard to do. Isabella remarked that, although her experience as an exchange student in Korea was a very positive one, that "the reality of being in Korea... [is that] sometimes they [Koreans] don't want to talk to foreigners" (p. 11). These kinds of interactions decrease a student's investment in Korean because of the inequitable power dynamic that is created when one is a foreigner in Korea, and Koreans, who have the symbolic resource of language, withhold it from foreigners by avoiding them or not engaging in conversation. Of course this is not the case of all foreigners in Korea, nor the case of all Koreans. This one small example of a power imbalance is simply an insight into how perhaps being in the immersion environment of a study abroad program in Korea may not always have a positive effect on Korean learners there.

KHLLs in the current study were also able to point to interactions with Koreans, or rather Korean society as a whole, as experiences that did not always result in positive investment. KHLLs often see themselves as both Korean and American, and experiences that make KHLLs feel like they do not belong in either category, that they are "other," have the potential to prompt them to take on a negative view of some aspect of their personal identity. Emily had such an experience when she visited her family in Korea for the first time after being excited about learning some Korean in a Korean weekend school. She went to Korea and came back to push against her personal identity as a Korean person for most of her life. She stated that it was

because “I went to Korea and it’s really obvious that I’m not Korean. It was very apparent to me that I didn’t fit in their society” (p. 6). Lara had the same feelings about her personal identity as a Korean person. However she pointed to the problem as one of trying to mesh her personal desire to identify as American with her connection to her Korean-speaking family who retained much of their Koreanness after immigration. When asked “Is there anybody or anything that... really negatively affected either your ability in Korean or your desire to continue [studying it]?” she responded:

It’s, yes, but it’s hard for me to explain... that period where I was very rejecting that side of me [being Korean] and I feel like trying to assimilate was a lot of the issue, or a lot of the reasons why I was rejecting it. ... Even if I had a negative relationship or interaction with someone, I feel like it was because of the assimilating. ... You know, my mom and I and me and my whole family have an interesting relationship. I love them, but especially with my mom I have a really complicated relationship and I think a lot of that does have to do with trying to claim my identity and also assimilating at the same time. [The negative parts] are not necessarily the people. It’s just the context that we’re in. (Lara, p. 19)

Lara’s complicated feelings about what exactly had a negative impact on her desire to continue studying Korean as she was growing up indicates that identity is extremely intertwined with how investment changes over time. Depending on how one associates oneself with Koreans and Korean society as a KFLL or a KHLL potentially has many implications for how one’s Korean journey progresses, and whether one experiences higher, sustained investment with positive, equitable relationships or lower investment with interruptions to motivation on a more regular basis.

One participant in the current study had more concrete stories to tell about her interactions with Korean-dominant people and how she felt excluded from that group in more or less explicit ways. Allison told two stories, one about how her Korean language skills affected

how she was viewed by Koreans, and one about how she was targeted because of being Korean. In the first story, Allison describes a time in high school when she was asked to give a new group of Korean students a tour around the school, since she spoke Korean as well as English. She had a nice conversation with them until they asked her where in Korea she was from, and she told them that she was not from Korea. She reported their reaction to her statement as, “Wait, you’re not a real Korean? ... You may speak Korean and you may look Korean but you’re not Korean” (p. 8). Again in high school, some Korean students would tease her about being American instead of Korean, poking her and calling her “American-made.” Allison commented that “it kind of turned me off on wanting to hang around with other Koreans, simply because of how close-minded they were” (p. 9). She also recounted several instances in college of weird behavior from Korean classmates toward her as an American that made her have unpleasant feelings toward Koreans in general growing up; when asked about the node of her LInoP that had least contributed toward her desire to learn Korean she mentioned, “I could have gone without the Korean drama-like Korean kids I had to deal with growing up” (p. 19). Because of these interactions and more, she said, she did not feel like she wanted to hang out with or belong to a Korean group of people in school. She did eventually have more positive experiences with the friends she made in the heritage series classes, but the events of high school and early college had a large negative impact on her investment in studying Korean at the time.

5.4.4 Connecting LInoPs to RC test scores

Each of the participants took a Korean relative clause (KRC) test before the follow-up interviews. This test was the same test as they had taken two years prior, except for the change of the production task from free production (typing a response in) to forced-choice production

(multiple choice), as described in section 5.3 above. The results of both the initial and follow-up tests appear in Table 2 below: the total correct responses, the number of correct responses on the production task and the comprehension task, the number of correct responses on SRCs and on ORCs, and the number of production RCs in which the participant answered correctly but dropped the embedded argument and/or particle. A brief discussion of these numbers follow, but the results that include questions from the production task are not directly comparable. The production task was changed from a free written production task to a multiple choice selection production task which did not allow for some types of errors that were seen in the initial test (and therefore made the task easier).

Table 2. Initial and follow-up relative clause test results, in # of correct responses

Learner Category	Names	Total Correct (/35)			Prod. Correct (/20)			Comp. Correct (/15)			SRC Correct (/18)			ORC Correct (/17)			Dropped Arg/Part (Initial)
		Initial	Follow-up	Change	Initial	Follow-up	Change	Initial	Follow-up	Change	Initial	Follow-up	Change	Initial	Follow-up	Change	
KHLLs	Emily	24	32	+8	14	20	+6	10	12	+2	14	17	+3	10	15	+5	8
	Ji Ah	34	35	+1	19	20	+1	15	15	0	18	18	0	16	17	+1	0
	Lara	33	33	0	18	18	0	15	15	0	18	18	0	15	15	0	4
	Zoe	20	28	+8	12	20	+8	8	8	0	18	18	0	2	10	+8	10
	Allison	21	13	-8	9	8	-1	12	5	-7	15	8	-7	6	5	-1	9
	Kyoung Mi	24	34	+10	10	19	+9	14	15	+1	8	18	+10	16	16	0	0
KFLLs	Ben	34	35	+1	20	20	0	14	15	+1	17	18	+1	17	17	0	0
	Isabella	30	25	-5	15	12	-3	15	13	-2	16	16	0	14	9	-5	1
	Calvin	13	29	+16	10	19	+9	3	10	+7	12	16	+4	1	13	+12	10
	Logan	20	23	+3	11	14	+3	9	9	0	18	18	0	2	5	+3	0

Notes:

- The left cells are the initial test results; the middle cells are the follow-up; the right cells in the columns are the net change between the two tests.
- Production task = 20 questions: 10 SRC, 10 ORC; Comprehension task = 15 questions: 8 SRC, 7 ORC
- The “Dropped Arg./Part.” column gives the number of correct responses that did not include either an embedded particle, or an embedded argument (with its particle). The follow-up shows no dropping due to the change in format of the test (from free written production to multiple choice).

The scores in Table 2 above are shown in order to give a sense of the change over time of participants’ ability to produce and comprehend relative clauses in Korean. The total correct, production correct, SRC correct, and ORC correct cannot be directly compared over time since the production task changed. A short description of the main results of the tests is nevertheless provided here. Of the KHLLs, Emily, Zoe, and Kyoung Mi showed a measure of improvement over two years, but Allison’s score declined (Lara and Ji Ah stayed level). Of the KFLLs, Ben had a high score on both tests; Calvin showed much improvement and Logan showed a little; Isabella’s score declined. These results show that even in a very small group of Korean language

learners who have similar experiences in college courses, there is a wide range of competencies (at least on this one small measure of syntactic proficiency). The scores themselves vary (the lowest is 13 out of 35, the highest is 35 out of 35) and the changes in the scores vary as well (from Allison's -8 net change to Calvin's +16). Ji Ah, Lara, and Ben all got very high, almost perfect scores on both tests, so this test of syntactic proficiency was not broad enough to capture any change in their learning between these two years.

When we look at comprehension, which is the only true comparison that can be made (since the comprehension task stayed the same for both tests) the prediction for change over time would be that KHLLs would maintain an already high ability to comprehend the RCs, and that perhaps KFLLs would catch up (or at least improve) if they continued studying Korean. Three out of the six KHLLs indeed showed no change, and two (Emily and Kyoung Mi) showed only a little. The unexpected parts of the comprehension scores for KHLLs were that Zoe only scored 8/15 (on both tests) and Allison showed a change of -7, a large decrease for what is expected of a KHLL. The comprehension scores for the KFLLs show that Ben and Isabella's scores were already at ceiling or almost at ceiling for the initial test and showed little change for the follow-up, which is comparable to the majority of KHLLs' comprehension performance. Logan also showed no change but only answered 9 out of 15 correctly each time. Calvin showed a large improvement in comprehension, which was expected since he went on to take another year of Korean classes and subsequently moved to Korea for work and kept up Korean learning with self-study.

The majority of participants (6/10) increased their production task scores, and 7 out of 10 scored at or near ceiling for the follow-up test. This may have been due to the change in format of the production task, which made the task easier, but the change in format does not explain the

relatively low scores of Allison, Isabella, and Logan, who also did not show much change from the initial to the follow-up tests.

When comparing SRCs and ORCs, the participants were, overall, more accurate on SRCs and more likely to be at or close to ceiling on the initial test and stay there for the follow-up. The major outliers were Allison, who registered a net change of -7 on SRCs, and Kyoung Mi, who initially only had 8 out of 18 correct, but on the follow-up hit ceiling with a change of +10. The ORC scores were generally lower, but the trend was to improve on ORC scores in the follow-up tests (especially Zoe with a change of +8 and Calvin with +12). The follow-up ORC scores were generally lower than the follow-up SRC scores, which shows that even after participants learned more Korean, they still found SRCs easier and their ORC proficiency still had not caught up to their SRC proficiency.

The table below shows the head errors made by each participant on the initial and follow-up tests. These head errors (described in Chapter 3) were originally identified by O’Grady, et. al. (2001). KFLLs were expected to make more head errors than KHLLs, since a head error indicates English to Korean transfer of the relative clause word order (in English, the head is the first argument, but in Korean the head is the last argument). However this difference was expected to lessen over time as the KFLLs would catch up to the KHLLs’ proficiency with more practice and learning. Except for Allison, all of the KHLLs did show a very low rate of head errors in both the initial and follow-up tests, as expected. Except for Ben, the KFLLs made more head errors in general. Calvin, however, showed a marked improvement in the rate of head errors as expected, but Isabella and Logan increased their rate of head errors.

A reversal error is incorrectly applying or interpreting the embedded particle (also identified and named by O’Grady, et. al. [2001]). It was expected that KHLLs would make more

reversal errors than KFLLs would, since embedded particles are frequently dropped in conversational Korean (such as the KHLLs would have been exposed to and produced) but KFLLs would have been taught explicitly about embedded particles and encouraged to use them to show proficiency in class. KHLLs were expected to decrease their rate of reversal errors over time, however. KHLLs in the initial test did make more reversal errors on average than the KFLLs did. Most participants made a low number of reversal errors overall and also showed no major change in their error rates. Emily and Zoe made a moderate number of reversal errors but Emily improved on her score in the follow-up. Allison made 9 more reversal errors in the follow-up compared to the initial test. On the KFLL side, both Isabella and Logan made a couple of reversal errors in the initial test and made a couple more in the follow-up, but maintained a low rate overall of those errors.

Table 3. Initial and follow-up relative clause test error types, in # of errors made

Learner Category	Names	Head Errors			Reversal Errors			Other Errors		
KHLLs	Emily	1	0	-1	5	3	-2	5	0	-5
	Ji Ah	1	0	-1	0	0	0	0	0	0
	Lara	0	2	+2	1	0	-1	1	0	-1
	Zoe	1	0	-1	6	7	+1	8	0	-8
	Allison	4	10	+6	3	12	+9	7	0	-7
	Kyoung Mi	0	1	+1	1	0	-1	10	0	-10
KFLLs	Ben	1	0	-1	0	0	0	0	0	0
	Isabella	2	6	+4	2	4	+2	1	0	-1
	Calvin	12	1	-11	0	1	+1	10	4	-6
	Logan	1	5	+4	2	4	+2	12	3	-9

Notes:

- The left cells are the initial test results; the middle cells are the follow-up; the right cells in the columns are the net change between the two tests.
- Other Errors included selecting “Not Sure,” dropping an embedded argument and/or particle in ORC context, and other errors.

As the last part of each interview with each participant, we asked the participant to recall the test that they had most recently taken and give their thoughts on it. Several of the participants, both KFLLs and KHLLs, described the test as fairly easy: Ben, Isabella, Emily, Ji Ah, and Zoe. Others, such as Logan and Calvin, described the test as difficult or they were more unsure of their answers. When asked to compare the production task to the comprehension task, Ben, Lara, Allison, and Kyoung Mi all said that the comprehension (listening) was easier, while

Zoe was the only one who thought the production task was easier. The more interesting parts of the participants' thoughts on the test were the strategies that certain participants said they employed to get correct answers. Ben and Logan, both KFLLs, and no KHLL participants, reported that they tried to break down the questions part-by-part, zeroing in on the particles and the particular placements of noun phrases to get the right answers analytically. But Lara, Emily, Zoe, and Kyoung Mi, all KHLLs and no KFLLs, reported using a "sounds right" strategy. They wouldn't analyze the question parts but they would pick the one that "sounds right" or "seems right," even if they couldn't point out why. On the production task, some KHLLs even read the sentences aloud to themselves and then picked the one that sounded right to their own ears. The employment of these strategies makes sense, since KFLLs must learn the language piece by piece, learning deliberately what particles mean and where noun phrases must be placed for a desired meaning; KHLLs instead learn the language as Korean-dominant speakers do and frequently are unable to explain the underlying grammatical rules. The interesting part is that even after several years of college level classes, the KFLLs have not quite reached a level to use the "sounds right" strategy, nor have the KHLLs started to employ the breakdown strategy.

In order to connect the qualitative LInoP descriptions from the interviews to the participants' scores on the KRC test, several themes from the LInoPs were selected and scored according to their potential positive or negative effect on the participant's investment in learning or using Korean. The themes were selected based on the criteria of being mentioned by more than one participant as well as being aspects or nodes of LInoPs that would plausibly have a (positive or negative) effect on the participant's investment. The themes are as follows:

- A. Strong interest in Korean media for a sustained period (TV shows, music, movies)
- B. Long-term friend, significant other, or group of friends with whom mostly Korean is spoken (not parents or siblings)

- C. Career-related goal for studying Korean
- D. Social goal for studying Korean (talk to family or significant other; meet new people)
- E. Some conflict with family over learning Korean
- F. Difficulties negotiating personal identity as Korean American or Korean learner
- G. Negative interactions with Korean people (non-family)

The first four themes (A-D) were considered aspects of LInoPs that potentially had a positive effect on, or potentially increased, the learner's investment. For example, a strong interest in Korean media (theme A) situates a learner as someone who knows about Korean pop culture, compared to someone without that knowledge, which gives them some currency and potentially creates an equitable power dynamic in relationships with other Korean learners who are also interested in Korean pop culture or with Korean speakers who are familiar with it. As Isabella also remarked, her sustained interest in Korean media before she enrolled in her first year of college courses also gave her a leg-up on other students on Korean proficiency, especially her pronunciation since she had heard Korean for long enough that she developed intuitions about how it should sound. When one of these themes came up in a participant's interview, that participant was assigned a LInoP score of +1. There are four of these positive themes, so the highest possible positive score for any one participant was a LInoP score of +4.

The last three themes (E-G) were considered potentially negative aspects of LInoPs that would adversely affect the learner's investment in Korean learning. For example, difficulties negotiating personal identity as Korean American (theme F) led Emily to essentially reject learning Korean after her first trip abroad to Korea, where she realized she did not fit in to Korean society. Previous to the trip, she had been excited about enrolling in Korean weekend classes. After the trip, she didn't have any desire to make Korean friends or engage with the Korean community in any way. While she eventually came to terms with her personal identity

and her negotiation of it has led her to a positive place, the time period revealed by the LInoP where she rejected that identity certainly affected her investment. For any of these negative themes that showed up in a participant’s LInoP, a LInoP score of -1 was noted. There are three of these negative themes, so the lowest LInoP score possible was -3.

For each of the ten participants in the current study, if themes A-D emerged in their LInoP, they were assigned +1 to their LInoP score. If themes E-G emerged, they were assigned a -1. If any particular theme did not come up in a LInoP discussion, no change was made to the LInoP score. The LInoP scores from the positive and negative themes were added up for each participant (see the net LInoP scores for each participant in Table 5 below). Each participant’s net LInoP score was then correlated with the KRC test accuracy (a percent of all questions they answered correctly).

Table 4. Summary statistics for the Net LInoP score variable

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Net LInoP score	10	1.2	1.229	-1	3

The KRC test accuracy variable was regressed on the net LInoP score variable along with the number of years of college courses and study abroad programs each participant had completed and whether the participant was a KHLL or KFLL. Summer study abroad programs were counted as 0.5 years of classes.

Table 5. Linear regression variable values

Participant	Learner type	Net LInoP score	KRC test score	Years of classes
Ben	KFLL	3	100%	4.5
Calvin	KFLL	3	83%	3
Isabella	KFLL	1	71%	2.5
Logan	KFLL	1	66%	2
Emily	KHLL	1	91%	4.5
Ji Ah	KHLL	1	100%	1
Lara	KHLL	2	94%	1.5
Zoe	KHLL	1	80%	0.5
Allison	KHLL	-1	37%	2
Kyoung Mi	KHLL	0	97%	1

The results of the linear regression showed that the participants with the higher net LInoP scores scored statistically significantly higher on their KRC tests, $p = 0.035$. These results are driven by a strong pattern in the incidence of the head errors. As the second column in Table 4 below shows, learners with higher net LInoP scores make significantly less head errors than those with lower net LInoP scores, $p = 0.035$. An increase in 1 point of the net LInoP score corresponded to an average increase of 14 percentage points in KRC test accuracy (the average KRC test accuracy was 52% without accounting for any additional variables). Additionally, an increase in 1 point of the net LInoP score corresponded to an average decrease of 0.4 percentage points in incidence of head errors (the average incidence of head errors was 1.4% without accounting for any additional variables). Head errors are described in detail in Chapter 3, section 3.2.1.

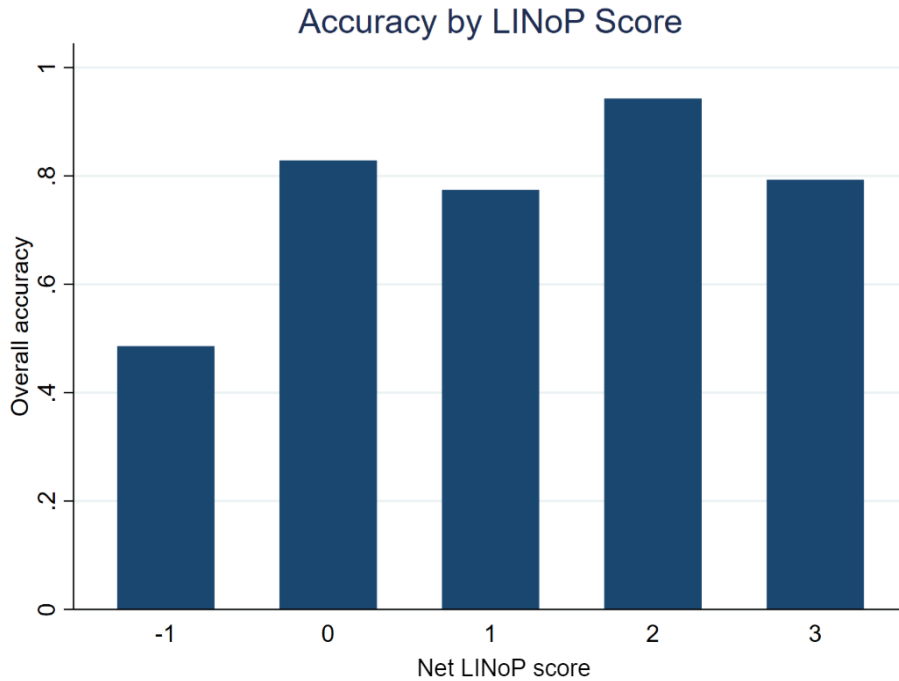
Table 6. Coefficients and standard errors for the KRC test accuracy scores and the incidence of head errors

	KRC Test Accuracy (1)	Head Errors (2)
Years of college courses	-0.004 (0.044)	0.000 (0.001)
Learner type	0.223 (0.129)	-0.006 (0.004)
Net LInoP score	0.146* (0.054)	-0.004* (0.002)
Constant	0.520** (0.168)	0.014** (0.005)
R ²	0.566	0.566
Number of observations	10	10

Notes: Table shows results of regressions of KRC test accuracy and head error rates on years of college courses, learner type and Net LInoP score. See text for detailed explanations of variables. Statistical significance levels are denoted as follows: *: significant at the 5% level, **: significant at the 1% level.

A visualization of the impact that the net LInoP score had on overall accuracy on the KRC test is presented in the bar graph below. As the net LInoP score becomes more positive, the average overall accuracy of the participants also rises.

Graph 7. Participants' average accuracy on the follow-up KRC test by net LInoP score



5.5 Conclusions

The current study focused on answering three research questions. The conclusions for each research question are provided below, with final notes at the end of the section.

1. What is the nature of KFLLs' and KHLLs' LInoPs?

Every single participant's LInoP differed from everyone else's, but several participants mentioned nodes or themes related to their Korean learning journeys that began to show what the typical KFLL or KHLL LInoP may look like. KFLLs mentioned that their original motivations to enroll in a Korean class started with a Korean friend or acquaintance, or a friend or acquaintance who was already interested in K-pop. Three out of four of the KFLLs had participated in an informal Korean conversation group, and they reported that the group was

much more helpful when they attended during their second and third years of Korean classes. All the KFLLs mentioned having language partners, but as many awkward or strained relationships with language partners were reported as fruitful ones. The KFLLs all had either career-related or social ultimate goals for their Korean learning.

KHLLs in the current study also said that their ultimate goals for their Korean learning were career-related as well as social, but the social goals were family-related, instead of the KFLLs' social goals which were to be able to talk to Korean significant others more smoothly and meet new people. The KHLLs' original motivations to enroll in the heritage series classes were different than the KFLLs' reasons; KHLLs more often cited having to fulfill a language requirement and wanted a class that they already knew something about and therefore would be easy. One common node in all of the KHLLs' LINOps was the Korean weekend school. All six KHLLs reported attending one, usually in early to late elementary school for one or a couple of years (sometimes off and on). It was mostly for being introduced to basic Korean literacy.

2. Which relationships or resources do KFLLs and KHLLs think are more or less helpful? What are the characteristics of these relationships or resources that make them more or less helpful, from the learner's perspective?

Participants were asked to point out the nodes in their LINOps that had provided the most help to them (compared to the other nodes) in two respects: 1) the node that helped them make the biggest gains in terms of language skills, and 2) the node that sustained their investment over time, in other words, made them desire to keep pursuing studying or using the language. They pointed to their college Korean classes and instructors (both KFL classes and heritage classes). They liked when the teacher was strict and challenging, but also very motivating and caring. They also pointed to flexibility of schedule and lesson plans as a helpful aspect of classes. Several of the participants had gone to study abroad programs, and some mentioned that they

were better able to take advantage of the study abroad experience for increasing their ability to use Korean when they went to Korea with a solid foundation of vocabulary, grammar, and practice before being immersed. The KHLL participants also frequently mentioned their personal relationships with their family members as the nodes that helped them keep up their desire to study Korean.

One of the least helpful nodes cited by participants was, again, college language classes and instructors. Students said that when there was too much difficult material presented too quickly, it was hard to stay motivated to learn (this may be a phenomenon related to Krashen's notion of $i + 1$, where students learn best when the presented material is just beyond their current level, but no further; Krashen, 1985). They also said that when the course and the students had different goals, it was hard to reconcile the students' desires to learn and practice certain skills with the reality of a class that focused on other things. In contrast to the helpful teacher, the unhelpful teacher would have an inflexible routine and would not cut back on how much work was assigned, even after the students all agreed. The fact that college courses and teachers were mentioned both as one of the most helpful nodes and one of the least helpful nodes shows that it has one of the largest potentials, of any node, for both KFLLs and KHLLs, to affect students' investment in Korean. The other least helpful nodes cited by the participants were the childhood weekend schools that all the KHLLs attended, as well as negative experiences with Korean people.

3. Is there a potential relationship between a measure of syntactic proficiency and the nature of the learners' LInoPs?

The current study did reveal that LInoPs, as measured for their valency, have a potential connection to a measurement of participants' syntactic proficiency based on the limited number

of data points available. Each participant's LInoP was assigned a net LInoP score, where the positive themes that emerged were given +1 point, and the negative themes -1 point. The resulting LInoP score correlated with the participants' accuracy on the KRC test; the higher the net LInoP score, the higher the accuracy on the KRC test. Examples of positive themes were having a long-term friend with whom mostly Korean is spoken, or having a strong interest in Korean media. Examples of negative themes in the LInoPs were having difficulties negotiating one's personal identity as a Korean American or as a Korean learner, or experiencing negative interactions with Korean people who were not family members.

More importantly than the quantified relationships between LInoPs and KRC test scores, however, is how documenting and discussing LInoPs and participants' lived experiences from their Korean learning journeys helps us better understand their investment in Korean, their identity as a Korean learner, and how both of those may change over time. In the current study many of the KHLLs showed a similar pattern of personal reflections on their personal identities changing over time which started out as acceptance in young childhood, a rejection after starting elementary school in English or another event, active negotiation through high school and resulting in a desire to enroll in heritage classes in college. Three out of four KFLLs, on the other hand, also showed a similar pattern of investment over time: they had high levels of investment during their early college years in Korean classes (having class every day, having a positive relationship with their teachers, having a fun introduction to language and culture) and then their levels of investment either decreased slightly or their motivations for studying Korean changed to something else. With these types of conclusions as a basis, further research on the topic should be undertaken so that the relationship between LInoPs and identity and investment can be better understood.

Chapter 6. Conclusion

The current study represents a culmination of several disparate parts pulled together to broadly investigate the journeys of Korean language learners. The quantitative aspect of the study measured the learners' accurate production and comprehension of externally-headed Korean relative clauses as a narrow representation of their acquisition of Korean (Chapter 3). Two learner groups' results were compared to each other: Korean as a foreign language learners and Korean as a heritage language learners both scored equally well as each other on two dimensions of relative clauses: clause type (subject or object relative clauses) and task type (written production and listening comprehension).

The qualitative aspect of the study explored learners' investment into learning Korean through interview questions and documentation of the learners' INoPs (Chapter 4) and LInoPs (Chapter 5). Both KFLLs and KHLLs described their language learning experiences in their own words, focusing especially on whether relationships or resources were valuable in terms of building and maintaining investment and contributing towards positive language proficiency gains.

Another quantitative aspect of the study combined the syntax test scores with quantified measures of the learners' LInoPs to suggest a possible correlative relationship between the two. Indeed, for ten Korean learners studied (six KHLLs and four KFLLs), the learners' scores on the relative clause test was significantly positively correlated with a measure of their LInoPs' emotional valency (positive or negative; Chapter 5). This is a beginning step to further research (see section 6.3 below).

This concluding chapter of the current study is laid out as follows: section 6.1 includes a brief summary of each of the previous chapter studies; section 6.2 reiterates the contribution of

this dissertation to the broader field of language acquisition research; section 6.3 discusses some limitations and further research directions (although these have also been briefly touched on in each of the previous chapters as well).

6.1 Chapter summaries

Three chapters in this dissertation (Chapters 3, 4, and 5) presented new studies built upon the work of previous literature and are briefly summarized here. All three chapters centered on aspects of Korean language acquisition of two populations of Korean learners. One broad category of learner was Korean as a foreign language learners (KFLLs), who all had completely acquired and been educated in their non-Korean first (and sometimes other) language(s) before being exposed to Korean as adults. The second category was Korean as a heritage language learners (KHLLs), who had all started learning Korean from birth (either monolingually or simultaneously with English). These learners then attended English-speaking schools and therefore may have gone through a period of roughly balanced bilingualism before English became their dominant language. In their cases, Korean was either incompletely acquired and/or attrited after English became their dominant language. Although all of these KHLLs attended at least some weekend Korean school classes, they were mainly educated in English and, at the time of the present studies, English was by far their dominant language, although they retained various degrees of Korean-speaking relationships with relatives and/or friends.

Chapter 3 focused on measuring a narrow slice of Korean learners' Korean language proficiency. I chose to focus the measurement on the late-acquired (and therefore possibly incompletely acquired or early-attrited for KHLLs) syntactic structure of relative clauses. This would enable the study to answer the question of whether KHLLs, who are regularly considered to be ahead of KFLLs and have an advantage over them in learning many aspects of the target

language (especially phonotactics, for example), would also be more accurate on a more complicated, syntactic-level structure when the two groups have been controlled for proficiency level. This study indeed showed that KFLLs and KHLLs were statistically similar to each other on both production and comprehension of relative clauses (with two types of clauses tested: subject and object relative clauses). This result gives evidence that KFLLs and KHLLs may be equally good at acquiring more complex target language structures.

Chapter 4 set aside the quantitative measurement of language proficiency and instead focused on hearing about Korean learners' investment in learning Korean through semi-structured qualitative interviews. These interviews focused on using diagrams called individual networks of practice (INoPs) to reveal the extent of the social relationships and other types of exposure (such as study materials or media) that the learner interfaced with at one point in time during their Korean-learning journey. Korean learners had many different social relationships and different experiences with all; commonly there were relationships with family (for KHLLs) and classmates, but interestingly, students maintained many other relationships that did not directly relate to family or language learning classes. Students joined clubs, had voluntary language partners, shared Korea-related interests with others, and maintained friendships both in person and online. They also reported a lot of time spent with Korean media and study materials (such as TV shows, movies, music, textbooks, online study apps, and more), which reveals that much of Korean language learners' exposure to the language is not directly from social interaction with others.

Chapter 5 investigated both KFLLs' and KHLLs' long-term individual networks of practice (LINOps) from interviews with four KFLLs and six KHLLs. LINOps built upon the concept of INoPs from Chapter 4 by extending the INoP diagram to uncover aspects of the

learners' Korean-related journeys over time. The major common themes for both groups of learners included the presence of typical nodes associated with college study, such as classes, teachers, language partners, and student groups, but also revealed the presence of family ties, personal interests, and other unique nodes. The participants discussed the most and least helpful nodes in their entire LInoPs; college classes and teachers figured on both lists, indicating their major potential for creating space in students' journeys to have more or less investment in language learning. A measure of LInoPs' valency was connected to a measure of syntactic proficiency (from Chapter 3), showing the need for further understanding of how those two aspects of language learning may be related.

6.2 Contributions

In this section, I briefly describe the original contributions of the current study to the broader literature on language acquisition. The previous literature on Korean relative clause acquisition (Chapter 3) had established tests for both production and comprehension of Korean relative clauses. I used the same materials for the production task (O'Grady, et. al., 2001) and I developed similar materials for the comprehension task (which was also modeled after the example in Lee-Ellis [2011]). I modified all of the materials to be an online test so the test would be more widely and conveniently available for potential future participants and researchers. In this study, I measured a group of KFLLs and KHLLs at the same time on both production and comprehension tasks, which had not been previously achieved. The results showed parity between the two groups on both task types as well as clause types (subject and object relative clauses only), which is a unique result that brings together several aspects of previous experiments into one study. I also included a group of Korean-dominant Korean-English

bilinguals as a control group, which did not result in a change in the expected performance of the learners but did contribute a new experimental control that may be utilized in the future for the development of new test items.

In Chapter 4, I extended the concept of INoPs in several directions in order to shift my focus from the original (socialization into academic discourses) to focus more on the breadth of Korean learners' networks in a general sense. First, I adapted the measure of "importance" from Zappa-Hollman and Duff (2015) to instead a measure of "time spent" with any particular node. The measures were based on the learners' reported time spent. This measurement shows visually the nodes with which the learner spends most of their Korean-related time. I also included a new measurement of "percent in Korean" which asked learners to report the percent of the time they spent with any particular node doing so in Korean (as opposed to English or other languages). This allows readers to gauge if INoP relationships are more focused on Korean language practice, on the one hand, or perhaps more on interest in Korea (but not necessarily language practice) on the other. Another extension was to apply the concept of INoPs to two different language learning contexts. Originally, INoPs were applied to English as a second language learners; the participants in the current studies were either Korean as a heritage language or Korean as a foreign language learners. The final extension made to INoPs in this chapter was the inclusion of "material resources" in addition to the social relationships of the Korean learners. Although material resources (such as study materials and media consumption) are not totally divorced from the learner's social context, they are isolated activities in that the learner engages with them on their own; I believe the inclusion of these material resources allows a broader picture of Korean language investment to come into focus.

In the final experimental study of this dissertation in Chapter 5, I further extended the concept of LNoPs in one significant way: to make the diagrams compatible with language learners' networks over time. Instead of asking learners to describe all of their current relationships, I asked them to start at the time they first started learning Korean or had an interest sparked. They then described the major social relationships, groups, activities, programs, and material resources that they had been involved with since the start of their Korean-learning journeys. This allowed for a broad conversation, from the learner's own perspective, about the people and activities that had most helped and most hindered their language progress along the way, as well as those that had contributed positive (or negative) experiences to the journey. In order to correlate the qualitative data about learners' LNoPs with their scores on the relative clause test, I also implemented a quantitative scoring system for the LNoPs where positive experiences/stories resulted in an increase, and negative experiences/stories resulted in a decrease of learners' "net LNoP scores". This is a first small step to relate quantitative with qualitative data, and is a ripe area of the current study for further development and research.

6.3 Limitations and further research

In this subsection I discuss some limitations of the current work and suggest areas for further research. In Chapter 3, the major limitation of the work was the number of participants in the study; although the number was significant enough to see that on a basic level both KFLLs and KHLLs may perform similarly on the relative clause test, there were interesting patterns in the data that may become more pronounced once the test is more widely taken. Even if more widely taken, however, the test format itself may be limited: the production task was written, which may unfairly advantage KFLLs who have had more instruction in literacy and in formal,

written language use contexts; similarly, the comprehension task was listening, which may have unfairly advantaged KHLLs, who are more accustomed to listening contexts than the KFLLs are. One limitation with the test, which was adjusted for the follow-up test but may still be limiting, was the requirement of participants to choose the correct internal argument case marker in order to distinguish between subject and object relative clauses. Although this is the only way to distinguish between subject and object relatives, relative clause-internal object case markers and relative clause-internal arguments are frequently dropped in informal contexts (such as what KHLLs would be exposed to) and subject relative clauses are generally more common. The format of this test is therefore an area for future improvement and development. Other interesting areas of future research related to this chapter are to test production and comprehension of relativized positions that are not just subjects or objects; how do Korean learners perform on these less common, but no less important to high language proficiency, relative clauses? Further research may even choose to dive deeper into the performance of the groups and individuals on the test. Were there patterns to the number or type of errors made that differ by group or even by individual? Discovering these patterns would lead to a deeper understanding of the acquisition of these complex structures.

Although the study in Chapter 4 was complex and included many measures and descriptions of Korean learners' INoPs, the study could not go into depth with many of the language learners with interviews; participants in the first part of the study replied to surveys only and therefore the information included in their INoPs did not serve to investigate their investment in depth, but only to describe what their INoPs might look like. A potential extension of this study would be to actually use the survey INoP data to follow up with those learners and

therefore learn more about the connection between INoPs as they appear in diagrams and how the language learners feel about their investment in language learning.

Chapter 5 focused on documenting LInoPs as a way to see how peoples' INoPs changed over time, and to see the Korean language learning journey as a whole, rather as one point in time. However, this broadening of scope opens up so much more data that much detail was lost. In Chapter 4, and in Zappa-Hollman and Duff's 2015 paper, INoPs were much more meticulously documented and details were able to be captured, such as the relative strength of all nodes on the diagram. The way forward with LInoPs research is to, first, document them in more detail and more consistency. If more information about each node could be added, such as an estimate of time spent with that node, or how much Korean is used with that node (both aspects which were added to INoPs in Chapter 4), the LInoPs picture would start looking more complete and its richness would be more apparent. One of the limitations of the Chapter 5 study is that the LInoPs, while a novel concept to capture a novel perspective on the language learning journey, were not precise enough to go into too much analysis deeper than broad themes and commonalities.

The second major limitation of the study in Chapter 5 is the measurement of the LInoPs' valency that was used to correlate the LInoPs with the KRC test scores. Because the LInoPs were perhaps not detailed or consistent enough, there were not enough common themes that emerged from the ten participants to really give a comprehensive picture of the overall valency of a whole LInoP. LInoPs, and language learning journeys in general, are very complicated emotional journeys that do not easily lend themselves to being measured as positive or negative. Therefore, if further research focuses on trying to measure the valency of a LInoP, the measures must be multiplied and refined. More data, in the form of more participants, would be needed in

order to start building even the smallest picture of whether or not the relationship between a LInoP's valence and a measure of syntactic proficiency is valid. At least the small connection offered by the study merits some further research.

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Appendix A. Language background and Korean self-assessment questions for KRC acquisition survey

Short answer boxes were provided, except for the multiple choice questions, which are specified with answer choices below.

- What is your age?
- Please choose the option that best describes you:
 - I did not speak Korean when I was little (I started learning when I was around high school/college age)
 - I started learning Korean when I was little (when I was born or shortly after) but now English is my dominant language (I am a heritage speaker)
 - I started learning Korean when I was born and it is still my dominant language (I am a native Korean speaker)
 - Other (please explain):
- What languages have you learned, and when/how did you learn each?
- Please choose the option that best describes you:
 - I am currently enrolled in Korean 203 at UW
 - I am currently enrolled in Korean 212 at UW
 - I am not enrolled in any Korean class because I am a native speaker
 - I am not enrolled in any Korean class but I am not a native speaker (please explain in “other”)
 - Other (please explain)
- Please choose the option that best describes you:
 - I feel that I am above average at Korean compared to most of my classmates
 - I feel that I am about average at Korean compared to most of my classmates
 - I feel that I am below average at Korean compared to most of my classmates
 - I am not enrolled in a Korean course
 - Other (please explain)

*Note: none of the survey respondents answered “Other (please explain)” for the second question.

Appendix B. Production task questions for KRC acquisition survey

The production task was part 2 of the experimental survey. The participants were given directions to complete the task as below:

Each of the following pages contains a series of two or three pictures. One of the animals or people on each page is marked by a star. For each series of pictures, your job is simply to answer the question “별이 어디에 있어요?” (Where is the star?). Please type your answer into the box provided. Your answer will always complete the underlined part of the following sentence:

“별은 _____에 있어요.”
(“The star is on _____.”)

Please only choose from the vocabulary items provided for you to make your answer. If you are not sure of the correct answer, please write in "not sure".

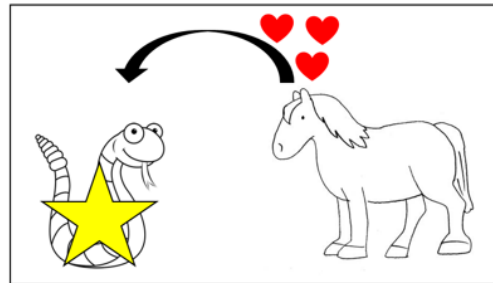
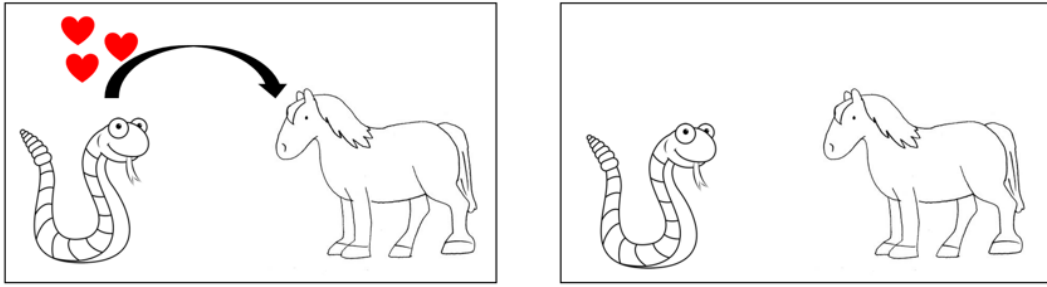
Please do NOT use the passive forms of the verbs provided. Only use the verbs as they are provided.

After being provided with two example pictures and the correct answers, the participants saw 20 pictures. For each picture the participants were provided with a short answer text box to type their answer in Korean into. For each picture, two nouns (the subject and object) and a verb were given as vocabulary items so that all participants would most likely write the desired target phrase.

The participants saw each of the pictures below four times, where the star appeared on different people/animals in each picture, targeting two subject relative clauses and two object relative clauses.

1. Questions 1, 2, 11, 16

Example: 말이 사랑하는 뱀 (“The snake who the horse loves”) (ORC)



별이 어디에 있어요?

별은 _____ 위에 있어요.

Vocabulary:

뱀 snake

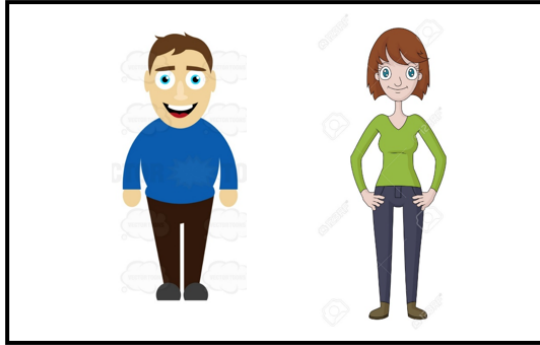
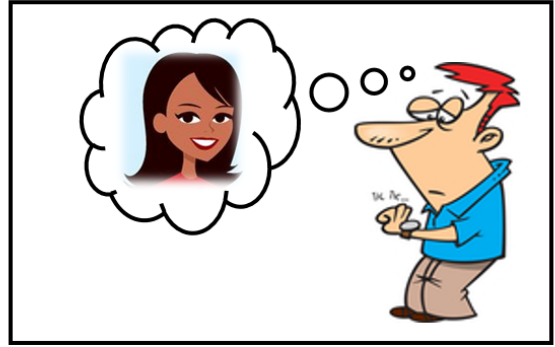
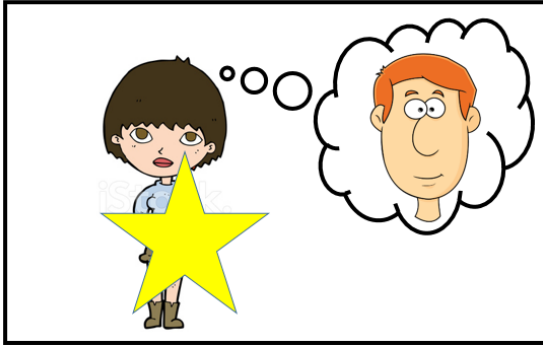
말 horse

사랑하다 love

2.

Questions 3, 6, 8, 12

Example: 남자를 기다리는 여자 (“The woman who waits for the man”) (SRC)



별이 어디에 있어요?
별은

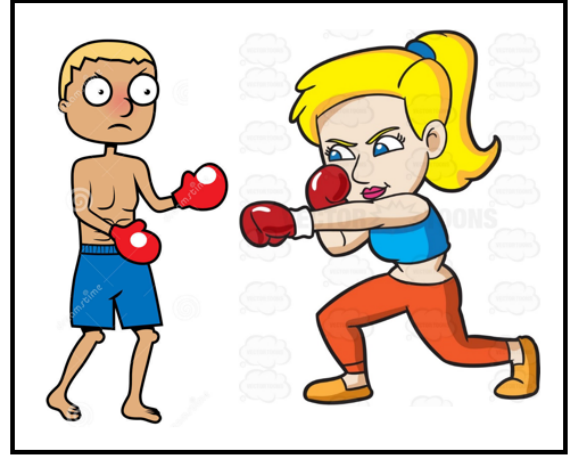
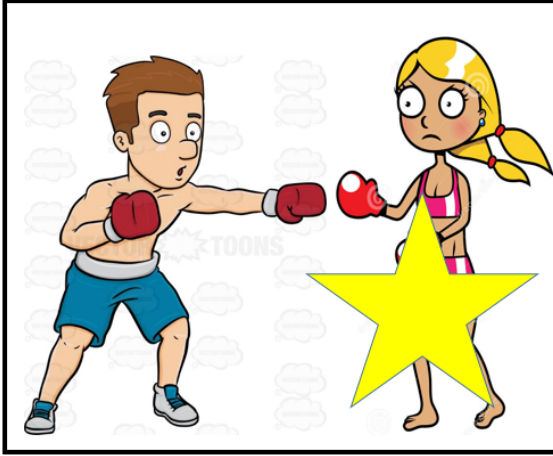
위에 있어요.

Vocabulary:
여자 woman
남자 man
기다리다 wait

3.

Questions 4, 7, 10, 13

Example: 남자가 때리는 여자 (“The woman who the man hits”) (ORC)



별이 어디에 있어요?

별은 _____ 위에 있어요.

Vocabulary:

여자 woman

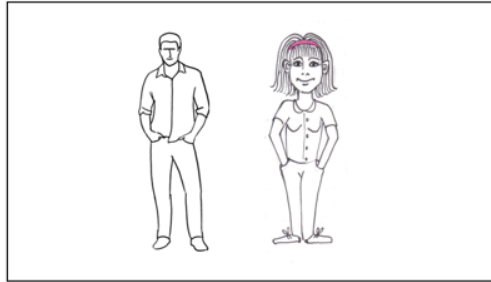
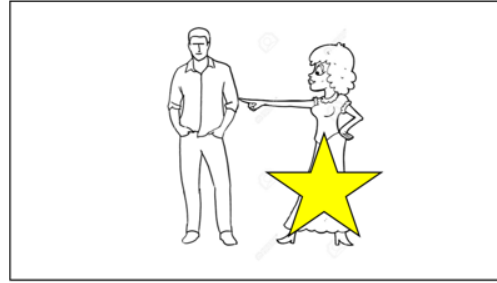
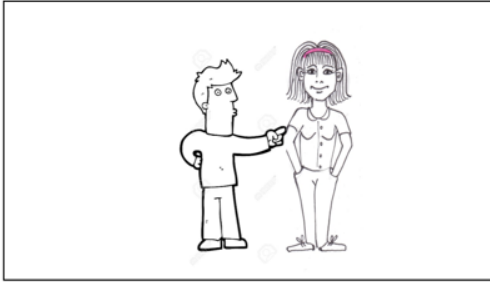
남자 man

때리다 punch

4.

Questions 5, 9, 14, 15

Example: 남자를 건드리는 여자 (“The woman who touches the man”) (SRC)



별이 어디에 있어요?

별은 _____ 위에 있어요.

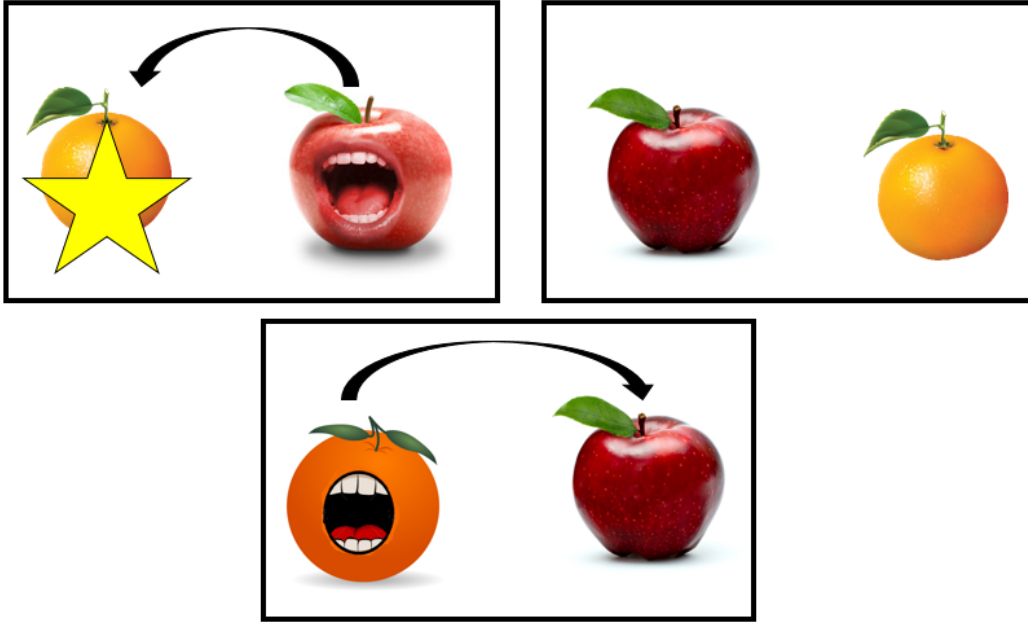
Vocabulary:

건드리다 touch 남자 man

여자 woman

5. Questions 17, 18, 19, 20

Example: 사과가 먹는 오렌지 (“The orange that the apple eats”) (ORC)



별이 어디에 있어요?

별은 _____ 위에 있어요.

Vocabulary:

먹다 eat

사과 apple

오렌지 orange

Appendix C. Comprehension task questions for KRC acquisition survey

The comprehension task was part 3 of the experimental survey. The participants were given directions to complete the task as below:

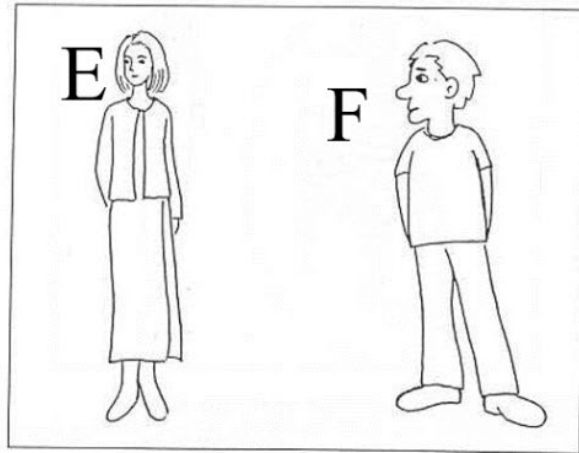
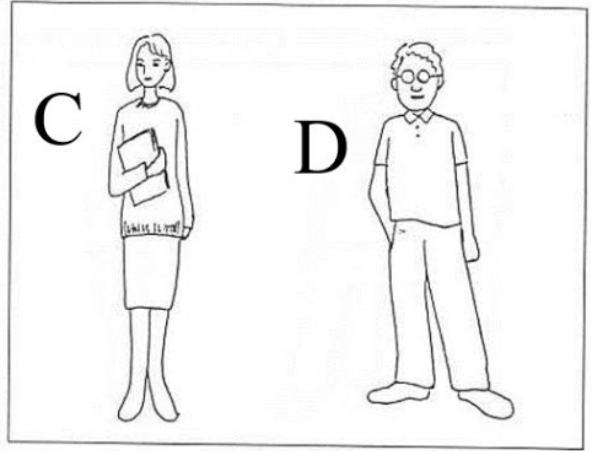
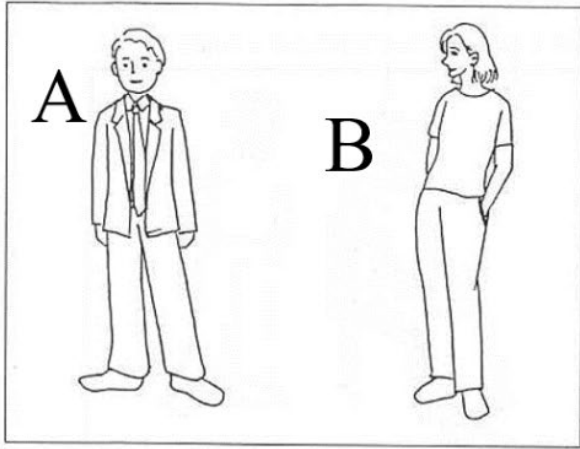
Each of the following pages contains a video that shows a series of three pictures and one multiple choice question. As you go to each page please play the video and you will hear a recorded voice describing a person or animal in one of the three pictures. Your job is simply to choose the letter of the person or animal described in the phrase.

Please play the video on each page ONLY ONCE. The phrase will repeat, so you will hear each phrase twice. If you do not know the correct answer after playing the video once, please choose the "not sure" answer choice and move on to the next question. The video will only show a black screen. It is not important to see the black screen; it is important to look at the image on each page as you hear the recording played by the video.

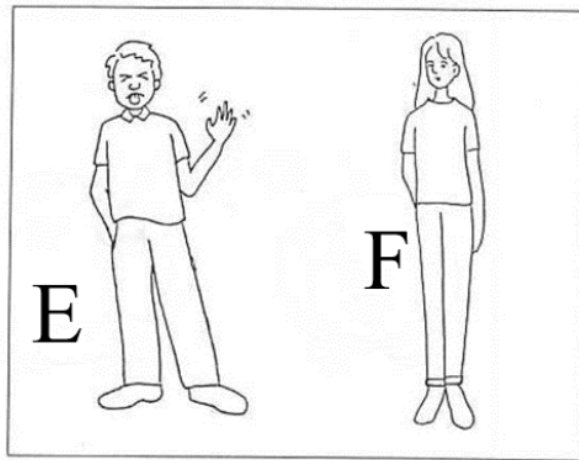
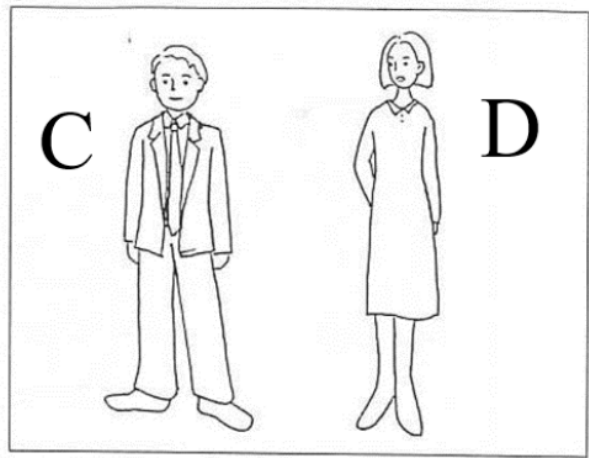
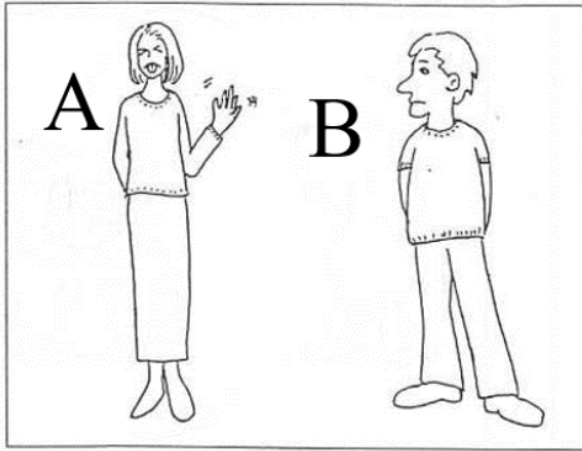
After being provided with two example pictures and the correct answers, the participants saw 19 pictures each with a corresponding video. The video was a black screen with an audio recording of the relative clause repeated (so the participants heard each relative clause twice). For each picture the participants were provided with multiple choice answers A-F and a "not sure" option. For each picture, two nouns (the subject and object) and a verb were given as vocabulary items so that all participants' accuracy would not depend on them knowing the relevant vocabulary, although the vocabulary is basic enough to have been learned by the intermediate level.

The pictures below are representative of all the pictures the participants saw (except the ditransitive verb pictures, which were thrown out for the results). The three verbs (*like*, *dislike*, *see*) and four nouns (*woman*, *man*, *dog*, *pig*) are the vocabulary items that were tested.

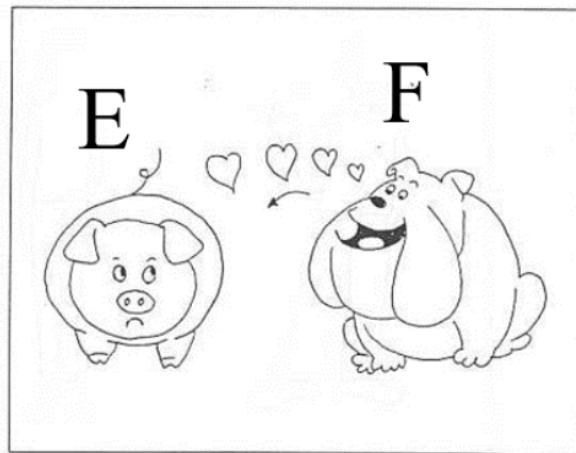
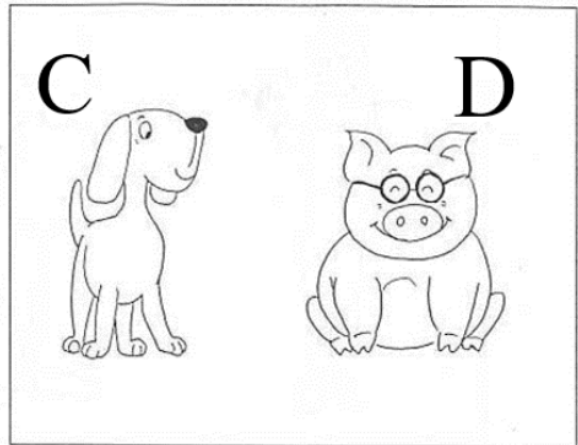
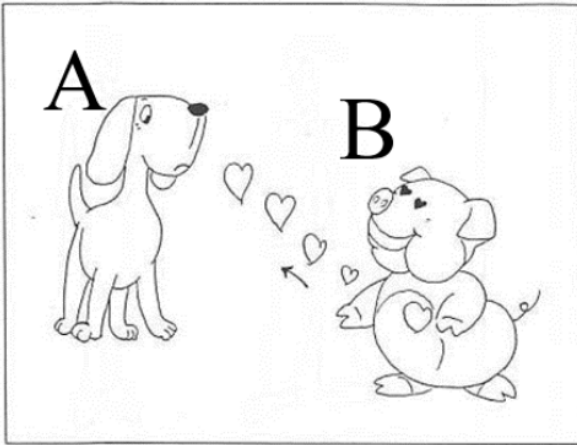
1. Vocabulary: 여자 woman, 남자 man, 보다 see



2. Vocabulary: 여자 woman, 남자 man, 싫어하다 dislike



3. Vocabulary: 돼지 pig, 강아지 dog, 좋아하다 like



Appendix D. Survey Questions

Section I: Background information

- How old are you?
- How old were you when you started learning Korean?
- What Korean class are you currently enrolled in (if any)?
- What Korean classes have you taken in the past?
- Have you studied or lived abroad in Korea for any length of time? Please list each time separately here. For each time you list, please include: (a) the dates you were there (beginning and end), and (b) the purpose of your stay (study abroad, vacation, living, etc.).

Section II: In-class interaction

- Please list all of the people you interact with IN YOUR CURRENT KOREAN CLASS here. For each person you list, please include:
 - a. Their name (please use just a first name or pseudonym to protect their identity)
 - b. Their relationship to you (classmate, instructor, etc.)
 - c. How much time you spend interacting with that person in class (5 hours a week, 20 minutes per Korean class, etc.)
 - d. What percentage of the time you speak Korean with that person when you interact (can be a rough estimate—50%, 25%, etc.)
 - e. If you also interact with that person outside of class for any reason (yes/no)
 - f. If you also interact with that person outside of class, please state the reason you interact with that person outside of class (we belong to the same club, we were friends before enrolling in class, we do Korean homework together, etc.)
 - g. If you also interact with that person outside of class, please state how much time you spend interacting with that person outside of class (1 hour per week, etc.)

Section III: Out-of-class interaction

- Please list all of the people you interact with OUTSIDE your current Korean class, who you talk to in Korean AND/OR who you talk to about Korea-related topics (language, culture, etc.). Do not list anyone you already listed on the previous page. For each person you list, please include:
 - a. Their name (please use just a first name or pseudonym to protect their identity)
 - b. How you know that person (friend, conversational partner, etc.)
 - c. How you met that person (through an online group, through another friend, etc.)
 - d. How long you have known that person (1 year, 1 quarter, etc.)
 - e. How much you interact with that person (5 hours a week, once a week for 2 hours, etc.)
 - f. What percentage of the time you speak Korean with that person (can be a rough estimate—50%, 25%, 0%, etc.)
 - g. If you usually talk to that person about Korea-related topics such as language or culture (yes/no)

Section IV: Resources

- Please list any resources that you often use to learn Korean or to learn about Korea-related topics. These resources may include, but are not limited to:

podcasts, TV shows, movies, textbook, other grammar or vocabulary books, software, apps, music, etc. For each resource you list, please include:

- a. The name of the resource (TV show's title, podcast's title, genre of music, etc.)
 - b. How often you use it (5 hours a week, once a day for 20 minutes, etc.)
 - c. What percentage of the resource is in Korean (can be a rough estimate—50%, 25%, 0%, etc.)
- Podcasts, TV shows, movies, textbook, other grammar or vocabulary books, software, apps, music, etc. For each resource you list, please include:
 - a. The name of the resource (TV show's title, podcast's title, genre of music, etc.)
 - b. How often you use it (5 hours a week, once a day for 20 minutes, etc.)
 - c. What percentage of the resource is in Korean (can be a rough estimate—50%, 25%, 0%, etc.)