L2 (IM)POLITENESS IN THE SYNCHRONOUS CHAT OF ELEMENTARY SCHOOL LEARNERS

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Abstract

Participation in interactive games, especially those in immersive environments, is often employed in learning contexts to stochastically develop L2 learners' language ability. However, typical measures of language ability often do not reflect pragmatic competencies. This study juxtaposes two elementary school ESL learners' language ability, and facility with the media, with their politeness measures. Data was collected from out-of-school gameplay chat in a virtual environment designed for elementary school learners. Results suggest learners can express pragmatic miscues to interlocutors in the lean media of synchronous chat.

Keywords: chat; CMC; politeness

1. Introduction

There is a need for L2 pragmatic learning, both recognizing pragmatically expressed cues and using them. Without pragmatic skills, grammatical skill in a foreign or second language can work against a learner's communicating their intended meaning; a learner's interactions may be misinterpreted to carry pragmatic cues other than those intended. Likewise, learners with advanced skills in other areas (pronunciation, grammar, and so on) can be assumed by interlocutors to understand pragmatic meanings when they in fact do not.

One area of L2 pragmatic learning that can cause learners to present images of themselves contrary to the communications they intend is politeness. At the same time, computer-mediated communication (CMC) is of progressively greater importance for L2 learners. Today's learners interact socially through CMC, and more and more often, in learning contexts created by schools and instructors hoping to harness CMC designs for learning.

This study was undertaken to determine to what extent failures in politeness may pose barriers to elementary age Korean learners in synchronous CMC spaces in an ESL context. In this study, we selected native Korean speaking children's instant messages to study for politeness.

2. Literature review

2.1. Development of L2 learner's pragmatic ability

While L2 educators have long been aware that pragmatic ability is an essential part of L2 competence, research in the field of L2 learning has struggled to keep up with the new contexts and demands of L2 learners' pragmatic learning needs (Kasper, 2001a; Rose, 2005). Pragmatic abilities that can carry out important communicative functions and express one's own intentions appropriately in context have been considered an integral part of successful communication as one of the major components of language ability (Bachman, 1990; House, 2003). In short, this means the need for instruction in L2 pragmatic ability is recognized, but how this is best taught and learned is under-researched in all its many contexts and variations of subcategories.

The need for learning pragmatic skills is not universally recognized as the same across contexts; ESL educators stress it more than EFL-situated educators do. One locus for understanding L2 learners' relative pragmatic ability has been by comparing pragmatic ability with grammatical ability (Bardovi-Harlig, 1996; Beebe, Takahashi & Uliss-Weltz, 1990; Biesenbach-Lucas, 2004; Jeon & Kaya, 2006; Kasper & Blum-Kulka, 1993; Kasper & Rose, 2001; Schauer, 2009). Bardovi-Harlig and Dörnyei (1998) examined L2 learners' recognition of pragmatic violations by comparing pragmatic awareness with grammatical awareness. In their study, they write: "Where EFL learners and their teachers consistently identified and ranked grammatical errors as more serious than pragmatic errors, ESL learners and their teachers showed the opposite pattern, ranking pragmatic errors as more serious than grammatical errors" (Bardovi-Harlig & Dörnyei, 1998, p. 233). According to these scholars, advanced L2 learners who have grammatical ability often lack adequate pragmatic ability. Takahashi (2001) provides an example in her findings that L2 Japanese learners' lack of pragmatic knowledge to recognize English requests can be mitigated by making interactions "syntactically more complex" (p. 173). Kasper surveyed a number of studies of second language pragmatic ability and found that, repeatedly, "high general language ability is not matched by native-like performance in examined pragmatic features" (2001b, p. 506). Therefore, for an L2 learner to function adequately in an ESL context, L2 pragmatic ability is recognized as critical, but for an L2 learner to function in an EFL context with the occasional interaction with native speakers, it may be equally as critical but is more likely overlooked.

Many researchers have developed pragmatic instruction and examined the effectiveness of that instruction on L2 pragmatic competencies (e.g. Bardovi-Harlig & Vellenga, 2012; Nguyen et al., 2012; Eslami & Eslami-Rasekh, 2008; Eslami & Liu, 2013; Ifantidou, 2013; Jeon & Kaya, 2006; Koike & Pearson, 2005; Kasper & Rose, 2002; Taguchi, 2011). Bardovi-Harlig's (2015) meta-study examined how measures of pragmatic skill were operationalized in studies that investigate the effect of instruction on L2 pragmatics. Bardovi-Harlig's (2015) collected 81 empirical studies that investigated the effects of instruction on the development of L2 pragmatics, and analyzed each study's tasks for assessment of instructional effects, type of conversational input, and the activities used for practice. She concluded that various instructional strategies such as conversation with native speakers, role plays, game, mock job interview, oral peer feedback, problem-solving activities, and synchronous and /or asynchronous CMC can all improve L2 learners' pragmatic ability, yet none showed greater promise than any other.

Politeness is a subcategory within the larger scope of studies on pragmatic learning, and researchers have investigated the ability of learners to understand and use polite language (Hendriks, 2010). Linguistic politeness is an integral part of pragmatic competence (Bachman, 1990). Several of these studies in L2 politeness examine the communication between university students and their professors (Biesenbach-Lucas, 2007; Bloch, 2002), but we found no studies that look at learner-to-learner politeness in an L2 setting, even though, we argue, it is an important skill and one that will likely be needed when the learner actually uses the L2.

2.2. Computer-Mediated Communication in L2 learning

L2 learning designs use an ever-increasing amount of computer-mediated communication (CMC). CMC is a typical means of communication, and often one that carries out important communicative tasks. It is therefore seen as an important mode of L2 learning by instructors. It is also increasingly more familiar to students. Today's elementary age students have often grown up with various CMC technologies (Biesenbach-Lucas, 2007; Malley, 2006). Thus L2 learners bring a lot of exposure to CMC to their L2 learning experiences. Email, discussion board interaction and chat are the most frequently used means of communication in academic settings and, for today's learners, their daily life (Eslami, Mirzaei & Dini, 2015). Within many of these instructional designs, students are engaged in learning by interacting with their peers and instructors through these CMC media. Thus the ability to communicate with others online via email or chat in English has become an essential skill for L2 learners. Instruction has tried to keep pace, developing students' ability to communicate with others through authentic CMC

learning activities in a growing array of designs.

Furthermore, while CMC learning designs have been regarded as a good venue for teaching and learning of language in general, they are particularly so for learning pragmatics (Belz, 2007; Chun, 1998; Kern, 1995, Taguchi, 2011). The digital learning environment is one of the few places where errors necessary for learning carry mitigated or even no substantial social cost (Howard, 2012). Eslami et al. (2015) studied the existing literature on learning pragmatics in an L2 via CMC and concluded each put forward some notion that the affordances of every CMC technology studied can promote L2 learners' acquisition of pragmatic ability. The capacities identified by these scholars were:

- a) authentic instructional materials,
- b) exposure of learners to a broader range of pragmatic features and discourse options,
- c) opportunities for meaningful interactions,
- d) longitudinal evidence and data of L2 pragmatic development,
- e) effectiveness of instructional interventions in L2 pragmatic development (p. 100).

Both synchronous and asynchronous CMC can offer an authentic learning environment where learners practice L2 pragmatics. If learners are engaged in real-life interactions with native or native-like users of language, even more opportunities offered through CMC interactions are available for their learning of pragmatic skills.

In our search for published research on pragmatic instruction studied in CMC contexts, we found that the body of research into pragmatics in asynchronous CMC contexts such as email, wiki, video conferencing, online discussions, far outweighs the research in synchronous ones (e.g., Abrams, 2003; Belz & Vyatkina, 2005; Blake, 2000; Cunningham & Vyatkina, 2012; Hirotani, 2009; Kakegawa, 2009; Payne & Whitney, 2002; Satar & Ozdener, 2008). A notable exception is Lin, Huang and Liou (2013), who examined the effect of text-based synchronous computer-mediated communication (SCMC) on second language acquisition (SLA). They collected 10 existing studies that use SCMC for second language acquisition, and conducted a meta-analysis. They found that text-based SCMC had a small-sized, but positive, overall effect on SLA. This study, however, was broader than simply pragmatic ability and did not focus on politeness (Lin, Huang and Liou, 2013).

2.3. Existing studies on L2 politeness in CMC

Narrowing our scope to include only studies which looked at politeness in CMC, we found the same relationship, namely, that asynchronous studies far outweighed synchronous ones. Table 1 presents a summary of existing studies on politeness in CMC.

 Table 1. Existing studies on politeness in CMC, showing a gap in studies of synchronous CMC pragmatic

 learning investigations using learner-to-learner data

Author (Year)	Type of CMC	Type of Politeness	Data
Biesenbach-Lucas (2006)	Email (Asynchronous)	Request	NSs and NNSs' emails to faculty
Biesenbach-Lucas (2007)	Email (Asynchronous)	Request	NSs and NNSs' emails to faculty
Biesenbach-Lucas & Weasenforth (2002)	Email (Asynchronous)	Negotiation	NSs and NNSs' emails to faculty
Chalak, Eslami-Rasekh, & Eslami-Rasekh (2010)	Email (Asynchronous)	Request, Report, Negotiation	Emails between non- native speakers and faculty
Chen (2001)	Email (Asynchronous)	Request	NSs and NNSs' request e-mails
Economidou-Kogetsidis (2011)	Email (Asynchronous)	Request	Emails between non- native speakers and faculty
Economidou-Kogetsidis (2015)	Email (Asynchronous)	Email politeness	Emails between EFL learners and lecturers
Eslami & Liu (2013)	Email (Asynchronous)	Request	Emails between non- native speakers and faculty
Eslami, Mirzaei & Dini (2015)	Email (Asynchronous)	Request	Emails between EFL learners and tutor
Hartford & Bardovi- Harlig (1996)	Email (Asynchronous)	Request	Emails between non- native speakers and faculty
Hendriks (2010)	Email (Asynchronous)	Request	NNSs' request e-mails
Sykes (2005)	Written chat (Synchronous)	Invitation refusal	Group discussions among L2 students
Zarei & Mohammadi (2012	Email (Asynchronous)	Email politeness	Emails between non- native speakers and faculty
Zhu (2012)	Email (Asynchronous)	Email politeness	Emails between non- native speakers and faculty

From this breakdown, two insights come forward. Most of these studies investigate the differences in politeness between NSs and NSSs in CMC, and most focused on asynchronous CMC as well. Thirteen of the fourteen studies looked at email communications, and twelve of the fourteen studied interlocutors in different power roles, namely, students and some form of an instructor. This suggested there is a paucity of published research regarding synchronous CMC learning of politeness in contexts more likely for a learner to encounter, that is, peer-to-peer communication rather than communication with an instructor. One study stood out as having insights applicable to L2 learning of politeness.

Sykes (2005) studied three groups of American college students' pragmatic growth in three modes: written chat (SCMC), oral chat (oral SCMC), and in face to face environment. She found that while all of the students underwent the same treatment for learning pragmatic tactics, learners in the SCMC condition employed the tactics most often in both complexity and variety when in sessions where they were asked to make polite refusals (Sykes, 2005). She concluded that written SCMC has advantages over the other modes; it allows learners time to craft messages yet still provides the experience of authentic interaction (Sykes, 2005).

3. A study into the use of CMC for politeness strategies use

3.1. Quest Atlantis as the learning environment

Digital games have been used in various ways to facilitate L2 learning (Reinders, 2012). Quest Atlantis (QA) is a digital game built via the Active Worlds immersive virtual environment to create learning opportunities for children aged 9-12 (Barab et al., 2005). Elementary school learners engage in "quests" where online tasks are designed to lead learners towards educational objectives. The QA space allows learners to talk to each other via a chat interface, a form of SCMC, where all participants in the QA space can view posted text messages, and a "telegram" function where participants can send a message directly to another participant, visible only to the other student and QA moderators. Teachers, researchers, and administrative staff are simultaneously in the space as learners, but only intervene when etiquette guidelines are violated. Therefore, to some extent, learners' chat conversations are monitored to follow etiquette rules, but these interventions are rare. The completion of an online learning task, which requires one to gain an understanding of the etiquette rules of QA, is part of the game's introduction. Completion of the introduction lesson is needed to acquire a functional avatar and participate in chat sessions as well. The avatar is the 3-D character through which a player experiences the game. "The avatar itself is the vehicle through which the participant interacts in the environment" (Barab et al., 2005 p. 94). An avatar view is pictured in Figure 1.



Figure 1. The Quest Atlantis (QA) interface as seen via an avatar view showing the chat space where users of this game experienced the SCMC

The synchronous chat space is located below the human-like character across the bottom of the screen. Interactions in this study were created by learners typing into the white box that appears in Figure 1. The chat configuration was such that a user must press *return* or *enter* in order for the message to load on the others' screen, unlike some other configurations where each keystroke appears on the others' screen as typed. Those interactions are reproduced in this study with time stamps and an anonymized identity marker. The researchers have anonymized children's names to abbreviations reflecting the interlocutor's demographic. Thus, KF11 signifies a female Korean learner aged 11, while NS would signify a native speaking learner. Interactions appear in this paper as follows: *timestamp: demographic information: message*. The message language remains as written to express the nature of the chat messages.

It is important to note that the design of the QA experience is intended to mix learning with play. "Children regard QA as a form of play even though they are doing schoolwork." (Barab et al., 2005, p. 99). The learners in this study had access to QA in certain time slots at school as well as from home. However, most of the samples taken for this study came from hours outside of the school day, as determined by the time stamp on each message line. Most

time stamps reflected activity during the early evening. In many of the conversations it is also possible to infer that the learner is at home and not at school by something in the text such as "09/16/2006 7:44:49 PM: *he left and im playing on the com*." From the time stamp, 7:44 PM, and the reference to these siblings sharing a computer, we can safely infer that the learner was at home. Although time during the school day is provided for completing quests in QA, learners' access to the site from home made this data set attractive from a research perspective, as non-school hour could be assumed to contain more authentic interactions than had learners been in an educational setting when interacting online.

3.2. Characteristics of Korean L2 learners as study participants

To inform our perspective on culture-specific notions of politeness and apply that into our interpretation process, we conducted a brief literature review on Korean EFL students' pragmatic learning. While Suh (1999) insisted that there is no significant difference between Korean learners and NS students in the use of politeness strategies, several studies identified unique characteristics of Korean L2 learners (Kim, 2014; Kim, 2006, 2009; Park, 2001; Park et al, 1998; Suh, 1999). Those insights are summarized in a condensed list below.

- In writing in English, Korean EFL learners' politeness strategies are transferred from Korean.
- L2 learning motivation of Korean EFL students is attributed to external sources such as passing a test and getting a job.
- A study abroad experience is essential for employment in Korea.
- EFL students often interpret sarcasm as an indirect expression of a speaker's criticisms or negative intentions.
- When making requests, Korean EFL learners tend to maximize cost to a requestee by using the least polite strategy, imperatives, while in such cases NS students would use a moderate politeness strategy, such as employing a model verb, e.g.: *Can you.*.?
- Korean EFL learners' complaint communications are often indirect and non-linear.
- Korean EFL learners present emotional expressions more often than native English speakers.
- Korean EFL learners' criticism is accompanied by amplifiers (e.g.: *very, definitely*) and as well as more mitigating linguistic devices (e.g.: *a little*).
- When writing the complaint messages, Korean EFL learners show acceptance of partial responsibility for the problem and impersonalize sources of complaints.
- Korean EFL learners' use of politeness strategies is often inconsistent.

3.3. Research questions

The study was undertaken to support curricular design (Howard, 2012), so these research questions are aligned to that purpose and informed by other studies addressing the same context. A better understanding of differences between native speaker and ESL Korean learners' pragmatic differences would support the design of curricula created to enable nonnative learners to better participate in the QA learning experience. Other researchers have used similar tactics to study interaction in the QA space. Herring, Das and Penumarthy (2005) investigated children's and adults' CMC in QA and found a gradient of complexity from blog posts to chat, and generally greater linguistic complexity in girls' posts than boys'. They found that in sub-categories of CMC communication (nonstandard grammar, alternative spellings, CMC abbreviations such as brb, lol, grammar, punctuation and capitalization, and messages in all capitals) only in the category of non-standard grammar boys' CMC frequencies did outnumber girls, and they concluded that the practice of using these tactics helped learners build ownership around their discourse. Thus, it can be concluded that "Chat especially allows children ownership of the virtual learning environment" (Herring et al., 2005). No study that we found investigated non-native speakers' comparative facility in game chat. In light of Takahashi and Beebe's (1987) warning that grammatical ability and pragmatic competence may have a negative correlation with grave consequences for learners, we determined that pragmatic ability of L2 learners in this context was a worthy subject of our study.

Pragmatic ability, however, must be seen in relationship to the corresponding ability of a learner to functionally participate in online interactions. We looked to their grammar and other structural measures to determine if learners could reasonably be expected to possess L2 pragmatic skills. For that purpose, we compared learners' structural measures of language use with native speaking learners and adults in the same space, QA. In making this comparison, we hoped to identify what comparable facility the Korean learners had with synchronous CMC in QA, and what supporting instruction might be deemed necessary if pragmatic skills were lacking. If the two groups could be comparable in terms of CMC competence, a further investigation into L2 learners' measures of politeness might reveal aspects of their pragmatic competence in comparison to their native speaking interlocutors. This, we hoped, would elucidate how often these Korean learners in the space are likely to be misunderstood in their intended communications. Thus we asked questions regarding politeness only after we investigated learners' facility with synchronous CMC in QA. The research questions were as follows:

- 1. To what extent does these Korean ESL students' language complexity in synchronous CMC differ from that of their native English speaking counterparts?
- 2. To what extent do these Korean ESL learners use nonstandard English in relation to native speakers' usage of nonstandard English in QA?
- 3. To what extent does these ESL learners' use of politeness differ from that of native speakers' use of politeness in QA?

Our hypothesis on the outset was that the ESL learners would show comparable measures of facility within the medium of synchronous CMC in QA chat, but would show an imbalance of politeness as predicted by the previous research. Bardovi-Harlig and Dörnyei state that "Even advanced language learners often show a marked imbalance between their grammatical and their pragmatic knowledge" (1998 p. 234). Thus, we expected a number of differences in NNS synchronous chat, but in terms of politeness we could not predict just in which direction this imbalance might go. With the added stress of producing language via a keyboard in a second language, we foresaw non-native speakers, although competent users of synchronous chat, falling short of pursuing adequately polite language, or conversely, making little effort to produce appropriate violations of politeness either.

3.4. Design and procedure

3.4.1. Preparations to collect the sample corpus

The QA main server logged all chat data so that chats may be moderated and studied. Although learners in the QA space included 9-12 year old school children in the US, Australia, Singapore, and China, for this comparative case study we selected only native Korean speaking children residing in a small town in the American Midwest. Study of these learners' interactions was then filed and protected under the university IRB agreement at a large American Midwestern University's human subject's approval process.

The data were first selected by surveying the chat logs from a number of classes in QA who have a high proportion of ESL learners. Before data were extracted, linguistic interactions were first surveyed for appropriate topics of interactions. Purely phatic interactions that did not develop, such as interactions that began with greetings but contained no subsequent messages, or unnatural interactions (such as copied text, or robotic text), would not be appropriate for analysis. The researcher located QA logs which provided a selection of

conversations where ESL learners engaged in enough QA chat to provide a fruitful comparative sample.

In the conversations there were a total of 28 native English speaking children, and five non-native speakers of English. Including one of undetermined native language, the total sample contained 34 participants. In the native speaker group, 19 were females and 9 were males. The learner of unknown native language was also of unknown gender. Among the non-native speakers, four were male, and only one was female.

In the data taken for the samples in this study, learners discussed QA tasks, but also other topics. For example, learners discussed such QA tasks as building a virtual home, "09/16/2006 3:21:46 PM: NS: WHERE DO YOU LEARN TO BUILD?" or gaining points in the quest score card, "09/16/2006 5:24:04 PM: KM10: *I got my first shard*!" However, tangentially related or off-task topics like school clubs and activities also comprised a large portion of the out-of-school discussions. These were considered appropriate for study as they were in fact authentic communicative tasks for ESL learners. For example, "02/18/2006 12:43:22 PM: KF11: Sarah are you going to cell cookies in college mall?" We made note of misspellings, such as *cell cookies* which we interpreted as 'sell cookies.'

As evidenced in these logs, several learners did not provide enough language to allow for a reliable study of their use of politeness. We located five Korean ESL learners' SCMC interactions, but three did not meet what we reasoned to be a minimum sample size. We assumed a minimum qualifying amount would be at least 3 conversations of more than 100 messages. From this group of five, one male and one female participant were selected for a detailed analysis of their chat data primarily because they had provided enough SCMC to analyze. These students participated in QA as part of their regular elementary curriculum. The two participants selected for individual analysis were both Korean non-native speakers of English who attended the same elementary school in the American Midwest where QA is part of the curriculum; their SCMC did not contain interactions with each other.

An additional sample of adult chat of teachers and researchers in QA was provided by other researchers who had used the data for another study (Herring, Das & Penumarthy, 2005) to compare adult and learner CMC. The researcher used this to make further comparisons with adults' language in synchronous QA chat.

3.4.2. Data collection

The Korean learner CMC interactions were copied from the main server to a separate Excel file, and then anonymized. The total student sample consisted of 1,363 messages and included

five synchronous chat conversations between native and non-native (Korean) speakers of English aged 9-11. Each chat conversation was between a native speaking learner and an ESL learner who attended the same school. None of the five chats repeated the same dyadic pair. The two ESL students, the male age 10 and the female age 11, who were selected from this sample for comparison with the native speaker portion, had been in the USA for more than one year when the sampling occurred. The selected male ESL students' chat contained 197 messages. The female ESL student's chat contained 341 messages. The three ESL students who were not selected for individual analysis contributed only 55 messages of the total sample. The additional teacher chat sample consisted of 120 messages of both male and female interlocutors.

3.4.3. Analysis procedures

Any study of CMC interaction must begin with a structural analysis to orient the researcher and subsequent reader of the research. Based on Herring's (2004) rejection of a priori technological determinism, "computer-mediated discourse may be, but is not inevitably, shaped by the technological features of CMC systems," a quantitative analysis of the data's structural properties was undertaken. Initial measures of word length and message length of the non-native subgroup were compared with both the native speaker chat and the adult subgroup. Few messages contained more than one utterance. These methods of textual analysis were aimed at gaining a general complexity measure of the data.

Thereafter, measures of five subcategories of non-standard usage were calculated for each subgroup. This was designed to shed light on the comparability of the subgroups of CMC conventions to justly describe learner behavior, and to identify the relative CMC competency of the non-native speaker subgroup. The five subcategories were operationalized and then the data were coded. The subcategories were: spelling errors excluding those which derive from CMC conventions, CMC conventions alone, non-standard grammar, non-standard punctuation and capitalization, and "shouting" message in all capital letters. It may be worth noting the following operationalization of the non-standard usage coding was performed:

- Missing contraction and possessive apostrophes were counted as spelling errors, not punctuation errors.
- "Gonna" and similar slang were not included in spelling errors because they are intentional and a typical convention of SCMC.
- Strings of punctuation or repeated letters were omitted from word length calculations.
- In calculating non-standard capitalization, the message or sentence initial capital was

considered optional as it seemed a regular practice in all of QA chat to leave it lower case.

- In coding for non-standard capitalization, abbreviations normally capitalized in English (i.e.: USA) were not counted as it was a convention among learners not to capitalize them.
- Messages with only one word fully capitalized were included as an all caps "shouting" message.

This method of textual analysis was undertaken to determine a measure of the learners' facility with the unique conventions of SCMC in the context in which they used them. The more or less automatic coding of these aspects of the data offered the advantage over other methods of analysis because of the predefined set of structural features (Herring 2004). Herring (2004) states that this sort of analysis is a sub-genre of discourse analysis as "a set of methods grounded in linguistic discourse analysis for mining networked communication for patterns of structure and meaning". The analysis of this sample was aimed at that purpose. The date sampling technique followed the group sampling practices outlined in Herring (2004) and targeted group characteristics of non-native and native speakers in QA synchronous chat.

The L2 student corpus of 538 messages was then coded for four areas of politeness, namely observations of positive politeness, observations of negative politeness, violations of positive politeness, or violations of negative politeness. Messages which conveyed no observation or violation of polite conventions were excluded from politeness calculations. Greetings, because of their high frequency in synchronous CMC, were not counted towards observations of positive politeness as is typical of politeness studies. The resulting corpus of polite acts by the two ESL learners came to approximately 200 messages from the original 538, split almost evenly between the male and female participant.

The coding of politeness measures was less automatic than calculating structural measures, but not subjective. Using the coding schema set forth in Herring (1994)'s adaptation of the concepts to CMC, we coded for four areas of politeness. These areas are based on the Brown-Levinson (1999) "Model|Person" (MP) theoretical construct, which posits that a competent and rational agent interacting with others has the ability to use and recognize these four areas of politeness.

In the Brown-Levinson's model, the MP has a "face" which consists of a desire for approval or acknowledgement, called positive face. Acts addressing this aspect of the interlocutor were coded using "p" following Herring's (1994) approach. Acts observing the positive "face," such as those showing appreciation, complimenting, approving, supporting, including/respecting, showing inclusion, or friendly joking were given a "p+" symbol. Acts impeding or violating this desire, for example, insults, challenges, bald disagreements, snubs, sarcasm, or expressions of strong negative emotion were given a "p-".

The Brown-Levinson model also had a category of negative "face." Brown and Levinson called the desire for autonomy, opposite to the desire to be approved of and included, *negative politeness*. Herring's (1994) schema identified these acts with the letter "n," with violations carrying a minus sign, and observances a plus sign. Acts observing this desire were labeled "n+" in the QA sample data, and included hedged requests, the offering of choices, apologies, giving respect to another's views, acknowledging another's views, showing sensitivity to another's time following Herring's (1994) design. The desire to be unimpeded could also be challenged or violated, resulting in a code of "n-" in the QA sample. Such acts were also coded following Herring's (1994) research design and included commands, imposing requests, ignoring or overriding another's preferences, or showing insensitivity to another's time or constraints. This section of the study was designed to reveal aspects of learners' pragmatic ability wholly separate from their basic proficiency with CMC.

	observances	violations
Positive politeness: acknowledging the desire for approval	Showing appreciation, complimenting, approving, supporting, including/respecting, showing inclusion, or friendly joking were given a "p+".	Insults, challenges, bald disagreements, snubs, sarcasm, or expressions of strong negative emotion were given a "p-".
Negative politeness: acknowledging the desire for freedom	Hedged requests, the offering of choices, apologies, giving respect to another's views, acknowledging another's views, showing sensitivity to another's time, "n+".	Imposing requests, ignoring or overriding another's preferences, or showing insensitivity to another's time or constraints. "n-".

Table 2. Types of politeness as applied to learner chat in this study

4. Results

4.1. RQ 1: Language complexity of Korean L2 learners in QA

Language complexity is operationalized in this study as a relationship between length of messages and the length of the words used in those messages. As an initial comparative measure, the two non-native speakers' average words per message were compared with their

native English-speaking interlocutors and the sample of adult synchronous chat in QA. The children's average message length was in general relatively similar to each other, but quite short in comparison with the adult sample. Figure 1 below shows the comparison.



Figure 2. Average message length in words among the 5 groups compared

The male Korean ESL student had the shortest average at 2.51 words per message. The female Korean ESL student produced shorter messages in average words per message than her female counterparts, but longer messages than the male ESL student, on average. The adult sample illustrates that age has a greater bearing on the amount of words per message than being an L2 learner. The difference between the Korean learners and the native speaker sample in the case of the boys was 0.58 words per message, and in the case of the girls it was 0.97. Averaged together that means this sample showed that native speaker children produce about 0.78 words per message more than the ESL students who were also taking part in the same chat in QA.

We expected to see a similar relationship when it came to word lengths. Clearly the adults when talking to each other online would produce longer words, but this difference turned out to be not drastic. The sample from Herring, Das and Penumarthy (2005) showed that the adults' average word length was 3.9 characters per word, and the native speaker girls produced words with an average length of 3.89. A difference would be well mitigated by the fact that strings of exclamation points or extra punctuation was not reduced from the children's sample, and that convention did not appear in adults' chat. Only the male ESL

student had an average word length below three characters, this in spite of occasionally using multiple punctuation marks directly after some messages. Among the students, the greatest disparity was between the native speaker females and the ESL male, a full character difference of 1.06. Figure 3 shows that none of the differences were, however, extremely dramatic.



Figure 3. Average word lengths in characters among the five groups' SCMC messages

4.2. RQ 2: Nonstandard English in learners' SCMC

We reasoned that five measures of non-standard English would accurately describe the Korean learners' facility with SCMC in QA. Those measures were spelling errors excluding those derived from CMC conventions, CMC conventions alone, non-standard grammar, non-standard punctuation and capitalization, and "shouting" message in all capital letters.

4.2.1. Spelling errors

There was disparity among the groups when it came to the use of non-standard spelling, but that difference emerged across gender, not language group. Calculating the spelling errors of the combined sub-samples showed native speakers and ESL students had precisely the same percent of spelling errors. If viewed from this perspective of combined non-native and native groups, sub-samples revealed that the non-native speakers paralleled their native speaking interlocutors, but only if you average the two genders. When separated by gender, stark differences appeared. The male Korean student's spelling errors were double the number of the female Korean ESL student's. In raw numbers, out of his 221 messages 39 had misspelled words, compared to her 27 misspelled words over 341 messages.



Figure 4. Spelling errors among the five groups normalized to per 100 words

While the gender difference among native speakers showed female learners making only slightly fewer spelling errors as compared to their male counterparts, the difference between the two individual Korean students was comparatively drastic. The gender difference in spelling error frequency inspired us to look closer at the types of errors being made by the two Korean students.

Table 3. Examples focusing on spelling errors drawn from the data, showing the female students' errors may have come from orthographic misconceptions rather than from carelessness in the space

Female Korean ESL Student (KF11)	Male Korean ESL Student (MK10)	
Saturday 11:54 AM: someone delate your house? Dec 06, 2005 04:01 PM: what ever	Thursday 05:52 PM: cick yourself to get off gagbe Sep 16, 2006 03:37 PM: nick shailey lets meat at the otakub	

There is a difference in the genre of these spelling errors if we recognize that the male student knows his interlocutor's name is spelled *Gabe*, *click* is a high frequency word in synchronous chat, and the *Otakhubis* a location often referred to in the Quest Atlantis 3-D space. For the male learner, these errors were avoidable. The female learner's errors, however, are plausible misconceptions regarding English language spellings. Also, in the male ESL student's SCMC apostrophes appeared only twice, and in both cases they were used correctly

in commands. Somewhat coincidentally, both were coded as violations of negative politeness later in the study. The L2 female's non-standard spelling was of a much different sort. *Delate** is a plausible sincere error for delete, and *cell** could well be a form of textual overcorrection. The native speakers spelling errors were actually skewed in the opposite direction, with the females using non-standard spelling more often, if only marginally.

4.2.2. CMC Conventions

It might be worth noting that the adult participants were quite seasoned in SCMC and conversed fluently with each other. They also knew each other seemingly well and could use a large number of abbreviations. The researcher found many more emoticons in the adult sample than in the children's sample. Some CMC conventions appeared only in the children's native speaker sample. Those were *AFK* for *away from the keyboard*, *lol* for *laugh out loud*, and *thx* for *thank you*. In one set of turns, a native speaking student taught CMC abbreviations, *brb* for *be right back*, *AFK*, and *lol* to a female ESL student, who continued to use the abbreviations *u* for *you*, *r* for *are*, but did not show any production of the new terms.



Figure 5. CMC conventions by group and normalized per 100 messages

The high number of CMC conventions in the adult sample is due mainly to the use of smilies (such as the positive \textcircled and its negative counterpart \textcircled) and a few other emoticons rarely in the student sample. Also notice here that it is possible to have multiple examples of CMC conventions in single messages. Only 4 instances were observed in the 1363 message

student sample: :), :(twice, and one instance of ~.~. The female ESL student did use abbreviations more than twice as much as the native speaker females, and the male ESL student also used twice as many as the female native speakers, but only 30% more than the male native speakers. In this respect, the non-native speakers used more CMC conventions than their counterparts. This could also hint at a reliance on the conventions to communicate in the relatively high speed chat environment. That almost half of the adult SCMC messages contained a CMC convention of some kind is telling of how pervasive the practice of using CMC abbreviations is in the discourse of native speakers.

4.2.3. Grammar

The female ESL student made over twice as many grammatical errors as her female NS classmates. Given the larger number of native speakers in the sample compared to only two non-native speakers in our case study, the gender dynamics of the native speaker subgroup may be more a trustworthy indicator of any trends. The researcher might expect the errors of grammar to take a similar path to non-standard spelling, where the male dominated by more than twice as many errors. This was not the case. The female ESL student committed more errors than the male one. A mitigating factor may be that the female student's utterances were longer, and she had extended conversations leading her to progressively more complex language. Also, she had a smaller proportion of her chat taken up by simple greetings, only 19 of her 341 messages. Of the male student's 197 messages, greetings accounted for 17 messages, leaving 180 messages where he could explore other constructions. The native speaker females breached grammar norms the least often among the learners.



Figure 6. Grammar errors among the five groups normalized to per 100 messages

4.2.4. Non-standard punctuation and capitalization

Although initial sentence capitals were not counted against this non-standard capitalization score, the male ESL learner's rare use of capitals elevated his number of transgressions to more than triple that of the female ESL student's. This is similar to his remarkably infrequent use of apostrophes. Here is another case, similar to the earlier figure depicting the two learners' instances of non-standard spelling, where the male ESL learner and the female ESL learner are polarized at different ends of the spectrum, and the male and female native speaker groups are closely aligned in the middle. Instances of non-standard punctuation and capitalization for native speaker boys and girls were close at 18 and 17.4 instances per 100 messages respectively.



Figure 7. The frequency of nonstandard punctuation and capitalization normalized to 100 words among native and non-native learners

4.2.5. Shouting

Nonstandard capitalization of all the letters in a word used for emphasis in CMC is often referred to as 'shouting'. This use of fully capitalized words was much higher among the two female subgroups than the males. Both the non-native and the native speaker girls had instances of between 6.6 and 6.8 textual shouts per 100 messages. The native speaker boys had less than a third of this number and the non-native speaker boy almost none at all, only

one instance.



Figure 8. Frequencies of messages including shouting in all caps expressed as a percentage of 100 messages in each of the four samples of learner SCMC

4.2.6. Politeness measures

After an understanding of how the non-native speakers compare to native speakers of their own gender on methods of textual analysis, a measure of these learners' politeness was more informative. Adult measures of politeness in QA synchronous CMC were not considered because of the power dynamics; adults in teaching roles would appear in the data as extremely impolite given the high number of commands and directions (directives) they give in their role as teachers. Command forms are violations of negative politeness because they infringe on the freedom of another to do as they wish.

The two non-native speakers were again polarized in measures of politeness, similar to some of the structural scales of transgressions of Standard English found earlier, spelling and punctuation/capitalization errors. Of all four subgroups, the male ESL learner produced the highest percentage of violations of both negative and positive politeness and the lowest number of observances of positive or negative politeness. The female ESL learner showed essentially the opposite relationship. She displayed observances of positive politeness more, and had the fewest violations of negative politeness than any of the sub-groupings. This highest percentage of observances of negative politeness was, however, the native English speaking boys. Both ESL learners showed fewer observances of negative politeness than their

native speaking classmates. Figure 8 illustrates these measures grouped by observance and violation.



Figure 9. Observations and violations of politeness expressed as percentages of the total number of messages that contained forms of politeness

Three out of the four politeness measures showed that this ESL male learner doubled the number of violations of his female classmate. In these politeness measures, the disparity from the native speaker sample was even more exaggerated. With less target language facility at hand, this exaggeration might reveal some clues about a pragmatic strategy differences that are determined by gender.

The female ESL learner takes care not to transgress as much as native-speaking females. She over-uses positive politeness in comparison. This may be the strategy by which she is attempting to ingratiate herself within the group of girls she goes to school with. The male ESL student on the other hand under-uses positive politeness and over-uses violations of negative politeness. This is in contrast to an equal or better grammatical ability than the female ESL student, suggesting he could have employed observances of positive politeness if he chose to. This might hint that in the social dynamic of an ESL student in the USA, what might be a positive behavior for a boy might not be such for a girl and the other way around. In light of the politeness measures, the drastic difference in non-standard spelling and punctuation between the two non-native speakers may provide some argument for correct spelling as a form of politeness in synchronous chat.

5. Discussion

Like all forms of qualitative research, this discourse analysis provides us little insight into what *usually* happens, or even what will likely happen, but rather speaks to what *can* happen. What we evidenced in this analysis is that these learners presented a very different persona than their actual behaviors online showed, especially in the case of the male Korean learner. The male learner was engaged in helping other learners navigate and accomplish tasks in the game, but his politeness feigned a very different image. The female was engaged in mostly social talk and coordinating activities in school, but her politeness portrayed her as overtly sympathetic. While differences in language complexity and facilities with CMC norms suggested a high level of competence in the media, the politeness measures told a different story. The learners' intentions did not correspond to their politeness, despite that they were likely understood as being able to convey nuances of meaning. This discussion provides the line of analysis and rationale that brought us to this summary.

5.1. RQ1: Differences in language complexity

The length of Korean learners' SCMC messages were similar to that of native speakers and followed the same gender pattern, but were slightly shorter, in each gender, by less than a word on average. The comparable message lengths would suggest to interlocutors that these learners were behaving in SCMC much like QA native-speaking learners. The same relationship held true in measures of average word length. Both Korean learners had shorter average word lengths than their native speaking counterparts, and their behaviors aligned with gender in this respect as well.

This component of the study was intended to replace grammatical measures to be used to first evidence whether or not the learner might be assumed to possess the ability to recognize and use pragmatic aspects of language. Direct tests of grammatical ability are a more conventional approach, but in the case of this study were both impossible and not especially relevant because the interactions were to take place in a non-pedagogical setting. In light of the fact that these learners did in fact participate in extended conversations in QA, and that the complexity measures were comparable to native speakers and followed gender patterns, we concluded that these data did in fact suggest that these learners appeared to their counterparts as able to recognize and use appropriate politeness. The extent of the difference was small, and we interpreted these data to suggest that it was so small as to not suggest to an interlocutor that a language barrier was in fact playing into the Korean learners' politeness.

5.2. RQ2: Differences in non-standard English

This question was posed to determine if CMC conventions and other aspects of nonstandard English that figure prominently in CMC spaces, or nuances of media played into how the learners were perceived by others or otherwise, impacted Korean learners' ability to enact politeness in QA. Taken as a group, the results suggest that CMC conventions did not hinder their ability to enact politeness. If anything, these L2 learners relied more extensively on CMC conventions than their native speaking counterparts, as evidenced in Figure 5, which shows higher frequency averages for L2 learners of both genders than native speakers. However, the results also suggested other insights, namely, that the Korean female learner was putting forth more effort in her communications than the Korean male learner.

Within gender, comparisons of the Korean learners' use of CMC conventions brought us to the inference that the Korean female was putting forth significant effort in her communications. In the two measures of spelling and punctuation/capitalization errors, the Korean female learner had lower frequencies than native speakers of the same gender. Furthermore, her spelling errors were more plausible as misconceptions rather than due to inattentive typing. This suggests that she was taking care to type correctly, at least more care than might be expected of a native speaker. These were measures in which she was likely to have control. Grammar, however, is less recognizable to an L2 author than spelling errors might be. In this area her frequencies are higher than both native speakers' and her Korean counterpart's. This dynamic suggested that her real L2 ability was lower than it may have appeared to interlocutors, but she was putting forth significant effort to communicate well.

The Korean male's sample, however, showed less attentive communications. His spelling errors surpassed the frequencies of native speaking learners of the same gender, as did the frequencies of his nonstandard punctuation and capitalization. His use of CMC conventions was more frequent, but his use of shouting for emphasis was almost absent. Had his sample contained no shouting messages at all, we could assume he was ignorant to the convention, but he was not. Rather, he just chose not to use the shouting convention very often and decided to apply other CMC conventions quite a bit. His grammar errors mirrored native speakers' in frequency averages. This suggested to us that the Korean male learner had a relatively advanced command of communication in QA chat, but was more attentive to the task than the elegant construction of messages.

5.3. RQ3: Differences in politeness

This study's foci are learner interactions in SCMC in two different areas of politeness,

positive and negative politeness. It is important not to confuse *violations* with negative politeness, the act of recognizing an interlocutor's desire to be unencumbered. In the discussion that follows, observances are acts of being polite in both areas, positive and negative politeness, while violations are behaviors that are generally received as impolite, and they two can take place in either area, positive or negative politeness.

Previous research suggested an imbalance in politeness, but did not suggest a direction in which these imbalances would appear. Our data here suggest these imbalances are not uniform; rather, they were quite different for the two subjects of our study. The male learner's imbalance tilted on the impolite side: violations outnumbered observances, while on the female side of the study, observances, primarily compliments, were of abnormally high frequency.

The male Korean leaner produced the most violations and fewest observances of politeness in both areas. This suggests that his communications would have been received as more impolite than his peers. This stands in stark contrast to what the learner was actually doing online; he was helping others accomplish tasks in the QA space. The fact that he provided no compliments, only one observance of other's desire to be unencumbered, and multiple directives, suggests he was more focused on accomplishing the task to help the other learner than on the means by which he did so linguistically. His interactions which called out errors of others were coded as violations of positive politeness, but can also be seen as helpful, considering the context, though few of us relish in being told how we are wrong. Violations accounted for 96% of the acts related to politeness in his sample and minimal observations of others' desires for inclusion (p) or autonomy (n); thus, from the perspective of politeness, he presented a persona of someone less than interested in communicating online with other learners, essentially impolite, albeit unintendedly so.

In contrast, the female Korean learner likely appeared overly polite. Her observances of positive politeness were more than double in frequency than her female native speaking counterparts, and percentage-wise, she had the fewest number of violations of any subgroup. Her pragmatic behavior is swayed heavily in the direction of compliments, approval, and support. Whereas the other ESL student was enjoying the role of the information resource, the female Korean learner may have been looking for inclusion into a social group. As a relative neophyte to the QA space, she must negotiate her acceptance among would-be virtual friends Weber (2011). Her data include discussion of social meetings as well as terms not found in the Korean male's sample, such as "please." Functionally, her interactions were different, and that may have played into her politeness measures. Language showing appreciation and approval

would better facilitate relationships than imposing requests, snubs or sarcasm, so her pragmatic strategy may have been appropriate, but over-pronounced. Compared to native speakers her politeness was imbalanced and skewed towards excessive observances of politeness, just the opposite imbalance of her male Korean counterpart.

6. Conclusion

Most studies of pragmatic L2 interlanguage are drawn from physical, face-to-face classroom environments, rather than virtual, informal contexts; so this study addressed an underexplored area (Reinhardt & Sykes, 2014). We found that despite comparability facility with the SCMC mode, and linguistic routines of synchronous CMC, these two learners' politeness measures were neither in line with native speakers, nor with each other. Their politeness was indeed imbalanced, as previous research suggested it might be, but not uniformly so. This study suggests, through a qualitative lens, that this imbalance can indeed present the L2 learner as able to communicate pragmatically, but, in actuality, the learners may be less in control of their image than might be assumed. This study stands as an argument to introduce scaffolds to support L2 learners' pragmatic strategies in online spaces as online spaces are where future learners are likely to encounter native speakers and because the social cost of L2 failure after they leave the safe space is higher than at school.

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