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Self-repair in second language interaction: Dyad groups in action

Beatriz Rangel-Studer

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SELF-REPAIR IN SECOND LANGUAGE INTERACTION:
DYAD GROUPS IN ACTION

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
English Composition

by
Beatriz Rangel-Studer
March 2006
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ABSTRACT

Since the early 1970s, Second Language Acquisition (SLA) researchers have been attempting to describe and explain the behavior and developing linguistic systems of individuals learning a new language. Among some of the factors that influence SLA are second language (L2) input in any of its forms (i.e. written or verbal) the learner is exposed to, output or the language produced by the learner, interaction or the opportunities the learner has to use their L2, and innateness or the natural ability to learn a language. Thus, given the complexity of language and the amount of factors involved in language acquisition, current theories of SLA have been based on years of research in a wide variety of fields, including linguistics, psychology, sociology, education, and psycholinguistics among others (Gass & Selinker, 2001).

Some of the current theories claim that interaction influences and facilitates SLA (Hall, 1995; Long, 1980; Mackey, 1999; Pica, 1994; et al). These studies have explored the effects of interaction on production (Hall, 1995) and on lexical acquisition (Ellis, Tanaka, & Yamazaki, 1994) among others aspects yielding support for the relevance of interaction in SLA. Moreover, these
research studies in SLA also suggest that closely examining NNS spontaneous language enables us to tap the complicated process of language production (Van Hest, 1997) since conversational interaction serves as a bridge between the language input a L2 learner is exposed to and the amount of output this learner produces, as well as his/her development of proficiency in the L2. Thus, the study of the factors that shape interaction is important to understanding SLA.

This thesis describes the results of a research project that examines the interaction of L2 learners of English or Non-Native Speakers (NNS) between themselves and with Native Speakers (NS). This research project focuses on whether and how NNS’s self-repair differs between NNS-NNS and NNS-NS interactions, and whether and how these interactions differ between levels of NNS in order to indicate the L2 learner’s language proficiency.

From the data collected, it can be concluded that while there was not a correlation between overall frequency of self-repair and language proficiency, there was a relationship between frequency of particular types of repair and language proficiency. Specifically, there seems to be a correspondence between the sophistication of the
self-repairs utilized by NNS and their level. Moreover, it can also be inferred that NNS behave differently when interacting with different kinds of interlocutors, i.e. NNS or NS. For instance, the data show that though both Advanced and Intermediate NNS self-repair in the same way, Intermediate NNS self-repair more when talking to NS of English. On the other hand, Advanced NNS self-repair slightly more when talking to NNS.
ACKNOWLEDGMENTS

I would like to thank my parents whose support and encouragement kept me focused and my husband whose love and support kept me going.
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CHAPTER ONE

INTRODUCTION

Second Language Acquisition (SLA) describes the process people go through when confronted by a need to use a language other than their native one for communication (Gass & Selinker, 2001). Since the early 1970s, SLA researchers have been attempting to describe and explain the behavior and developing linguistic systems of individuals learning a new language. The dominant aim behind this research has been to extend our understanding of the complex processes and mechanisms that drive second language acquisition. Among some of the factors that influence it are L2 input in any of its forms (i.e. written or verbal), which the learner is exposed to, output or the language produced by the learner, interaction or the opportunities the learner has to use their L2, and innateness or the natural ability to learn a language. Thus, given the complexity of language and the amount of factors involved in language acquisition, theories of second language acquisition have been based on years of research in a wide variety of fields, including
linguistics, psychology, sociology, education, and psycholinguistics among others (Gass & Selinker, 2001).

Some of the current theories that attempt to describe SLA have focused on the importance of the relationship between different types of conversational interaction and SLA. A number of research studies claim that interaction influences and facilitates SLA (Hall, 1995; Long, 1980; Mackey, 1999; Pica, 1994; et al). These studies have explored the effects of interaction on production (Hall, 1995) and on lexical acquisition (Ellis, Tanaka, & Yamazaki, 1994) among others aspects yielding support for the relevance of interaction in SLA. In other words, studies support claims concerning a link between interaction and L2 development. Moreover, these research studies in SLA also suggests that closely examining NNS spontaneous language enables us to tap the complicated process of language production (Van Hest, 1997) since conversational interaction serves as a bridge between the language input a L2 learner is exposed to and the amount of output this learner produces, as well as his/her development of proficiency in the L2. Thus, the study of the factors that shape interaction is important to understanding second language acquisition.
One of the factors in interaction that can impact second language acquisition is self-repair. Self-repair is defined as the speakers’ decision to modify a perceived trouble source in the communication on their own initiative, without intervention from their interlocutors (Hutchby & Wooffitt, 1998). For instance, consider the following utterance (Hutchby & Wooffitt, 2001, p. 61):

(1) 1 I: Is it the flu: you’ve got?  
→ 2 N: No I don’t think - I refuse to have all these things

Here, speaker N self-repairs when answering the question “is it the flu: you’ve got?” At first, speaker N says “I don’t think” but stops and ends the utterance by asserting that he or she “refuse[s] to have all these things.”

Research suggests that repair is directly related to the L2 learner’s language proficiency level (Kormos, 1999). Also, the use of self-repair is considered an important feature of L2 interaction since its appearance in non-native speaker (NNS) speech is considered an important factor in determining L2 learner fluency. In other words, the appearance of repair in NNS speech is viewed as a lack
of L2 mastery (Riggenbach, 1991). Unfortunately, many institutions that offer courses in second language instruction determine L2 development through the administration of standardized language tests, which do not include a discourse or communicative component such as the analysis of self-repair. As discussed in Bachman (2002), these testing practices are based on a theoretical view of language ability as consisting of skills (i.e. reading, writing, and listening) and components (e.g. vocabulary, grammar, and pronunciation). However according to newer views, language development testing must consider the use of language as the creation of discourse, and the dynamic quality of language. Thus, examining learner's repair behaviors, embedded in discourse, might give a better and broader view of second language ability than standardized testing alone.

This thesis' central inquiry is twofold. The first and most important research question intends to determine the way in which self-repair, one of the shaping factors of interaction, may be related to L2 development and the L2 learner's language proficiency level. The second research question intends to determine whether the interlocutor's L1 (i.e. whether the interlocutor is a NS or a NNS of English)
influences the way in which they self-repair. Data from this study come from recorded interactions between six dyads involving NNS of English.

This first question is of particular importance because of its implications for language development testing and its reliability. This research looks for a correlation between frequency and type of self-repair and the predetermined levels of L2 proficiency determined through written tests such as CELSA, which were used at Imperial Valley College where the ESL subjects were recruited.

However, as previously discussed, such language tests have sustained considerable criticism. According to many second language specialist of language testing, this practice must be broadened to include “communicative competence” (Widdowson, 1978, 1979, 1983). This implies that language development testing must view language ability as dynamic or ever-changing and language use as the creation of discourse or the negotiation of meaning (Canale & Swain, 1980, Morrow, 1979, Saffingnon, 1972, 1983). Moreover, as Gass and Selinker (2001) point out, these types of “instruments,” standardized language tests, yield no productive data (i.e. objective data in the form of
scores) since there is no accepted cutoff point to determine a learners L2 level of proficiency. In other words, different researchers have different cutoff scores for the same proficiency level. Thus, analyzing a communicative component, such as NNS use of self-repair during interaction, might help or supplement current testing practices.

The second research question intends to determine if there are any differences between the interactions of NNS-NS and NNS-NNS. This is relevant because there is some evidence (Schumann, 1978, 1976) that "social distance," which is a lack of affinity with the target language community, could negatively influence an L2 speaker's L2 development. For instance, Schumann points out that great social distance might affect L2 speakers' L2 development because learners reduce their L2 output. Though it could be argued that this lack of output might be only perceived lack of fluency, this factor, the interlocutors L1 background, can have an effect in the results of this study. Similarly, Long and Porter (1985) compare NS-NNS and NNS-NNS interaction and conclude that NNS-NS interaction does not foster negotiation of meaning, which affects the amount of interaction and the length of the exchanges. They
suggest NNS-NNS interactions allow greater opportunity for negotiation of meaning than either NS-NNS or NS-NS interactions, which contributes to the learners L2 development in ways NNS-NS interaction cannot. However, in a study that analyzes the speech and the negotiation of meaning of dyad groups involving NNS of English during conversational interaction with both NS and NNS, Pica and Lincoln-Porter (1996) argue that during NNS-NNS and NNS-NS exchanges, interaction did not vary much.
CHAPTER TWO
LITERATURE REVIEW

2.1 Overview

Linguists have defined input, output and interaction as variables influencing Second Language Acquisition (SLA). Although each one of these areas is of great interest, research suggests that conversational interaction facilitates second language (L2) development in ways in which input alone or output alone cannot. For instance, Krashen (1980, 1981, 1985) argues that language acquisition is caused by learners' understanding of input which is slightly beyond their current stage of knowledge (also called simplified linguistic input), by means of context and other extra-linguistic cues. In addition, Krashen says that comprehensible input is particularly beneficial for L2 learning. However, there are a number of problems with Krashen's "Input Hypothesis" (Gass & Selinker, 2001; Gregg, 1984; White, 1987). For example, by concentrating on meaning and context, other researchers point out that Krashen misses the fact that certain aspects of grammar development in the learner are largely internally driven, and independent of context or meaning (Gregg, 1984). Also,
Krashen never points out what input is relevant to what L2 developmental stage. In other words, Krashen never defines levels of knowledge, so, based on his description, there is no way to know where a level ends and where the other one begins, which makes the amount of input necessary, or comprehensible input, ambiguous (Gass & Selinker, 2001).

Moreover, input, data the second language learner hears, is an insufficient condition for second language acquisition to occur because input must become intake, the portion of the L2 which is assimilated by the L2 learner (Ellis, 1994).

Since it has been established that input is necessary, though not sufficient, for L2 development, current research suggests that this input can be made comprehensible through modifying interactional structures rather than through simplifying linguistic input (Long, 1983). Long's (1980, 1996) "Interactional Hypothesis" of SLA suggests that negotiation of meaning through interaction is crucial to language development in that it increases a learner's comprehensible input, provides important information about form-function relationships, and elicits negative feedback from the recipient. The negative feedback, which is the recipient's correct reformulation of a learner's incorrect
utterances, draws learners' attention to differences between input and output, that is, causes them to focus on form, and thereby leads them to learn the language effectively. This interaction hypothesis maintains the primary emphasis on communicative meaning while simultaneously dealing with student errors. In other words, interaction links, in a useful and constructive manner, input or the language an L2 learner is exposed to, the learner's inner skills, and output or language the L2 learner produces (Van Hest, 1997).

Also, there is substantial evidence supporting the idea that negotiation of meaning increases interaction (Ellis, Tanaka, & Yamazaki, 1994; Hall, 1995; Pica, 1996a) which facilitates comprehension of the target language (TL). For instance, Ellis, Tanaka and Yamzaki conducted a study that analyzed the influences of interaction on comprehension and the acquisition of vocabulary. This study involved two groups of students of English in Japan (EFL), and its findings suggest that students involved in classroom interaction gain greater understanding of word meanings as well as increase their vocabulary. Similarly, Pica (1996a) points out that while L2 learners participate in conversation interactional activities, their
comprehension of linguistic forms and content is facilitated through the negotiation of meaning. She argues that through the negotiation of meaning learners make a greater amount of output modification, which in turn betters their comprehension of the TL. This negotiation of meaning may also be reflected in the increased access to lexical forms and meanings since learners repeat, replace or define unfamiliar terms, which also increases the amount of interaction and the length of their exchanges. Moreover, research in second language acquisition suggests that closely examining NNS spontaneous language data in interaction provides a window into language development and enables us to tap the complicated process of language production (Van Hest, 1997). Thus, the factors that shape interaction are of great concern in order to understand SLA.

Among the factors shaping interaction is the phenomenon of self-repair. Self-repair is defined as the speakers' decisions to modify a perceived trouble source in the communication on their own initiative, without intervention from their interlocutors (Hutchby & Wooffitt, 1998). Research suggests that self-repair is directly related to the L2 learner's language proficiency level.
Moreover, the use of self-repair is an important feature of L2 interaction since its appearance in NNS speech is considered an important factor in determining L2 learner fluency (Riggenbach, 1991). Therefore, an interesting way to study L2 development is by closely examining self-repairs in L2 learners' interaction.

Michael Long (1980) is one of the first researchers to point out the existence of repair phenomena in conversational NNS interaction. His study looks at the interactions of NS and NNS, which include a low proficiency NNS participant. In his unpublished dissertation, he analyzes the phenomena of repair and suggests different ways in which it affects the NNS’s speech. He identifies the following functions of repair: Confirmation checks, comprehension checks and clarification request. Confirmation checks are repairs the speaker makes to ask the question "is this what you mean?" For instance, look at the following example (Gass & Selinker, 2001, p. 274):

(1) S1: when can you go to visit me?
→ S2: visit?
In this utterance, S2 made a confirmation check by saying "visit" in a rising intonation, in other words, in the form of a question.

During comprehension checks, the speaker asks the interlocutor the following questions: "Do you understand? Do you follow me?" As an example consider the following (Gass & Selinker, 2001, p. 274):

(2) → S: I was born in Nagasaki. Do you know Nagasaki?

In the previous utterance, the speaker wants to confirm that the interlocutor understands or knows the place he/she is talking about.

Next, clarification checks are repairs that look for an answer to the questions "What? Huh?" For instance, consider the following utterance (Gass & Selinker, 2001, p. 274):

(3) S1: ... research

→ S2: research? I don't know the meaning

Here, the S2 repairs and asks the interlocutor to explain what the word research means.
2.2 Self-Repair vs. Other-Repair

There are several reasons that make self-repair an optimal feature of second language interaction to examine. The most important is that, as pointed by Scheglof, Jefferson, and Sacks (1977), in conversation, there is a preference for the speaker to repair his or her own utterances (self-repair), rather than have them repaired by the interlocutor (other-repair). Though Schegloff et al’s studies were based on the analysis of native speaker’s (NS) speech (L1), this preference for self-repair holds true for nonnative speaker’s (NNS) discourse (Firth, 1996; Scudder, 2004; Shehadeh, 1999). For example, Shehadeh (1991) investigated NNS interaction. The results showed that most repairs were self-initiated, i.e. self-repair, rather than other-initiated clarification requests, i.e. other-repair (70 percent versus 30 percent, respectively, similar to Schegloff et al’s results). Thus, this preference for self-repair gives a better window into the learner’s internal thought processes and interlanguage since the speaker’s choice is mostly likely influenced and based on his or her knowledge of the L2. Moreover, since self-repair is generally more common than other-repair, focusing in this characteristic of NNS speech will provide a greater
amount of data that can supply useful insights into L2 learners' language development processes, specifically of English as a Second Language (ESL) students. In other words, a greater amount of data may yield a better view of the learner's L2 development.

2.3 Self-Repair Taxonomies

2.3.1 First Language Self-Repair Taxonomy

After Long's study, other linguists investigated this phenomenon. For instance, in a groundbreaking study, Levelt (1983) provides the most detailed and widely used first language (L1) self-repair classification, which serves as a basis for a L2 self-repair taxonomy (Kormos, 1998). From a corpus of 959 instances of self-repair made by Dutch-speaking adults while describing visual patterns, Levelt classified self-repairs into "different information, appropriateness, error, and covert repairs," which are further divided into subcategories.

First, a different-information repair (or D-repair) is made when the speaker changes his or her mind and realizes that the message that is being formulated must be replaced. For instance consider the following example (Levelt, 1983, p. 51):
Here the speaker starts a message, "We go straight on," but decides to interrupt it and replace it with "We come in via red."

Second, an appropriateness-repair (or A-repair) is done when the speaker becomes aware that the information expressed needs further qualification or description. This type of repair is divided into ambiguous-reference (or AA-repair), appropriate-level repair (or AL-repair), and coherent-terminology repair (or AC-repair). These self-repair subtypes can be illustrated by the following examples (Levelt, 1983, p. 52):

(5) S:  
We start in the middle with . . . in the middle of the paper with a blue disc

This example is an example of an ambiguous-reference AA-repair because the speaker recognizes that the phrase "in the middle" can be interpreted in different ways, such as in the middle of the drawing or else. Thus, the speaker repairs and says "in the middle of the paper" to clarify the description. Next, consider the following as an
appropriate-level repair or AL-repair (Levelt, 1983, p. 52):

(6)→ S: with a blue spot, a blue disc at the upper end

In this example, the speaker realizes that there is not enough information for the listener to understand the description and, therefore, adds more information or the appropriate level of information to better understanding.

The following is an example of a coherent-terminology repair or AC-repair (Levelt, 1983, p.53):

(7)→ S: You go one up, is uh you come to yellow

The previous utterance shows that the speaker repairs to stay with the same type of clause first uttered, that is noun plus action verb “you go,” so the speaker drops “is” and utters “you come” to stay with action verbs.

Third, an error repair (or E-repair), which is identified as mistakes or an “accident lapse,” is divided into three subtypes: lexical error (or EL-repairs), grammatical error (or EG-repair), and phonologic error (or EF-repair). These subtypes of repairs can be exemplified by the following utterances (Levelt, 1983, p. 53):
Here the speaker made a lexical error because in this utterance the repair replaces the wrong color, "red," for the correct one, "black."

Next, consider the following as an example of a grammatical error (Levelt, 1983, p. 54):

(9)→ S: and black . . . from black to right to red

Here the speaker recognizes that a prepositional phrase is needed, "from black to right," in order to show the sequence in which these colors appear.

An example of a phonetic repair can be exemplified by the following (Levelt, 1983, p. 54):

(10)→ S: A unut, unit from the yellow dot

In this utterance the speaker mispronounces saying "unut" for the word "unit," and self-repairs saying "unit."

Lastly, the covert repair or C-repair is a repair whose cause could not be determined by Levelt's research. Nevertheless, Levelt theorizes that these sorts of repairs might be made as a result of a "false alarm." For instance, consider the following utterances (Levelt, 1983, p. 55):
(11) → S: Then right, uh gray

(12) → S: An at the right side an orange dot, orange dot

In these utterances, the speakers end their utterances without changing anything, so it leaves unclear whether their intention is to correct the color or direction or anything at all.

2.3.2 Second Language Self-Repair Taxonomy

Levelt's taxonomy served as the foundation for L2 self-repair taxonomies such as those used by Van Hest (1996) and Kormos (1998 & 1999b). Van Hest developed more detailed definitions for each type of self-repair. In her research study, Van Hest reviews self-repair studies in L1 and L2 and redefines Levelt's covert repairs and adds a new category: overt repairs. Levelt and Van Hest define covert repairs as repairs done before the utterance is completed due to the awareness of the trouble source and overt repairs as repairs done after the utterance is completed since the trouble source is identified after its production. As an example of a covert repair consider the following utterance (Van Hest, 1996, p. 103):

(13) → S: it was a combination of uh of a career move
In this example according to Van Hest, the repetition of the word "of" and the pause given by the utterance "uh" demonstrate that the speaker recognized an error in the utterance and edited before finishing the thought. Next, an overt repair can be exemplified by the following (Van Hest, 1996, p. 145):

(14) → S: because most (.) a lot of people are

Here, the speaker self-repairs after uttering the word "most" and replaces it with the quantifier "a lot of."

Using this modified taxonomy, Van Hest concludes that self-repair production might be of greater frequency in L2 learners' interaction than in L1 interaction due to the fact that L2 language learners might be still in the process of acquiring the target language (TL) features.

Like Van Hest, Kormos (1998), based on her study conducted with thirty Hungarian speakers of English (EFL) of varying proficiency levels, argues that certain modifications are needed in Levelt's taxonomy so that it can be applied for the analysis of repairs in L2. In her article, "A new psycholinguistic taxonomy of self-repairs in L2," she specifies more detailed description of repair
categories and its various types. Kormos' taxonomy identifies four major categories of self-repair: "different information, appropriacy, error, and rephrasing," and eliminates Levelt's covert repairs. Also, she renames Levelt's appropriateness repair as appropriacy repair, and she adds and renames some sub-categories for Levelt's different-information repair and appropriateness-repair. Moreover, she proposes a new self-repair category, which she calls rephrasing repairs (See Table 1).

Table 1. Self-Repair Taxonomy from Kormos (1998)

<table>
<thead>
<tr>
<th>Self-repair Type</th>
<th>Self-repair Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different-information</td>
<td>DM-repair (message-replacement)</td>
</tr>
<tr>
<td></td>
<td>DI-repair (inappropriate-information)</td>
</tr>
<tr>
<td></td>
<td>DO-repair (ordering-error)</td>
</tr>
<tr>
<td>Appropriacy</td>
<td>AL-repair (appropriate-level)</td>
</tr>
<tr>
<td></td>
<td>AA-repair (ambiguous-reference)</td>
</tr>
<tr>
<td></td>
<td>AC-repair (coherent-terminology)</td>
</tr>
<tr>
<td></td>
<td>AP-repair (pragmatic-appropriacy)</td>
</tr>
<tr>
<td></td>
<td>AG-repair (repairs for good language)</td>
</tr>
<tr>
<td>Error</td>
<td>EL-repair (lexical-error)</td>
</tr>
<tr>
<td></td>
<td>EG-repair (grammatical-error)</td>
</tr>
<tr>
<td></td>
<td>EF-repair (phonological-error)</td>
</tr>
<tr>
<td>Rephrasing</td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 1, Kormos proposes that a different-information or D-repair can be further subdivided into message-replacement or DM-repair, inappropriate-information.
or DI-repair, and ordering-error or DO-repair. For instance, a message-replacement or DM-repair is done when a speaker decides to abandon a message and substitutes it for a completely different one. As an example of DM-repair consider the following (Kormos, 1998, p. 45):

(15)→ S:  we like to er er v (.) maybe you have some vegetarians

In this utterance, the speaker starts “we like to,” and then abandons the message and says “maybe you have some vegetarians.” Next, an inappropriate-information or DI-repair is a repair done when the speaker identifies information that is erroneous and replaces this information. A DI-repair is illustrated by the following utterance (Kormos, 1998, p. 46):

(16)→ S:  you have to we have to make a contract

Here, the speaker substitutes the incorrect pronoun “you” or person with “we” to indicate who is responsible to write up the contract.

An ordering-error or DO-repair is a repair done when the speaker starts the utterance and decides to stop it to
include other information that he or she considers should be mentioned first before continuing with the message. A DO-repair can be exemplified by the following utterance (Kormos, 1998, p. 46):

(17) S: there's a big dining table for forty person and
    \[ \rightarrow \text{then we've also got er we it's well the dining}\]

In this example, the person is the owner of a hall giving a list of all the things that can be put into a ballroom, so when giving all these options, the owner decides, before proceeding with the utterance, "we've also got," to inform the listener that the table alone will occupy "half the room." Thus, the owner re-orders the information and lets the client know that the size of the table is an important factor when deciding what else he or she could put in the room.

Moreover, Kormos also defines an appropriacy self-repair or A-repair as a kind of self-correction in which the speaker encodes the original information in a modified way, and she proposes that this type of self-repair can be divided into appropriate-level-of-information or AL-repair, pragmatic appropriateness or AP-repair, use of "good
language" or AG-repairs, coherence (AC-repairs) and ambiguous reference or AA-repair (Kormos, 1999). For instance, an appropriate level-of-information repair or AL-repair is a self-correction made when the interlocutors believe that they need to add some information to clarify or add detail. An example of an AL-repair is the following (Kormos, 1998, p. 48):

(18) → S: there are er er twenty tables er about twenty

Here the speaker decides to repair and specify that there might be more or less twenty tables available instead of the exact amount of twenty.

Next, a pragmatic appropriateness or AP-repair is a type of self-repair made when the interlocutor believes he or she has made a pragmatic discourse transgression in the given situation. For instance, consider the following example (Kormos, 1998, p. 49):

(19) → S: it doesn’t matter it’s not a problem

In nineteen, according to Kormos (1998), the speaker is an owner of a restaurant changing an event date for a customer and recognizes that saying "it doesn’t matter" may not be
appropriate and says "it's not a problem" to express his/her ease in changing the date to the customer's request.

An AG-repair or repair for good language is a kind of repair that interlocutors use when they perceive that their utterance lacks sophistication concerning the manner of expression such as being overly informal. For illustration consider the following (Kormos, 1998, p. 51):

\[(20) \rightarrow S: \ \text{thirty five persons people}\]

In this example, speaker says "persons" and then repairs and says "people." This example shows that though this utterance is not incorrect or inappropriate, the interlocutor chooses to change it to make it formal or to show his/her knowledge of vocabulary.

Next, a coherent-terminology or AC-repair is done when the speaker repairs incoherent terminology. For example, consider the next utterance (Kormos, 1998, p. 52):

\[(21) \rightarrow S: \ \text{we would like er you to to write us an order er in twenty hours that you make sure that you will er come and book this room}\]

\[R: \ \text{I see all right and then I can only pay the}\]
Here, the speaker replaces the word "letter" with the coherent term "order" he/she had previously used to refer to this written request to book the ballroom.

In an ambiguous-reference or AA-repair the speaker repairs the referring expression because of ambiguity. For instance, considered the following utterance (Kormos, 1998, p. 50):

(22) S: in this uhm in this part of the town er there

In the previous utterance the speaker recognizes that the pronoun "it" in "vegetarians like it" could stand for anything including the university when the intention was to say that vegetarians liked "the restaurant."

In addition, Kormos adds a new category of L2 self-repairs: Rephrasing Self-repair or R-repair. A rephrasing self-repair involves a change in coding because of uncertainty about its correctness without abandoning the initial idea (Kormos, 1999). For example consider the following utterance (Kormos, 1998, p. 53):
(23) → S: because I think our schedule is free this weekend

In this example, the speaker rephrases the "our schedule is free this weekend" saying "we're free during this Friday and Saturday," so in spite of the change in coding, the message remains the same.

2.4 Self-Repair and Second Language Development

These categorization schemes have allowed researchers to observe NNSs interacting in their L2 and relate their use of self-repair to the NNSs L2 development. For instance, Kasper (1985), in a study of advanced students of French in a foreign language classroom, analyzes different types of repair activity during classroom interaction, and concludes that in advanced NNS discourse, the vast majority of repair is more complex discourse-level repairs (e.g. content and pragmatic repair) rather than linguistic (e.g. phonological, lexical, grammatical) repair.

O'Connor (1988) examines interlanguage variation, especially the use of self-repair, in L2 speakers of French. Interlanguage (IL) is a system of rules composed by learners of an L2, which they use in order to produce a
target language (TL) or L2. She relates this L2 learner's feature, self-repair, to the proficiency level attained by the speaker. She claims that a correlation exists between types of repairs and level of proficiency. For instance, she points out that structural or corrective repairs, such as lexical replacement and phonological and lexical changes, occur more often at lower levels of proficiency. On the other hand, more advanced level subjects tend to be more engaged in planning or "anticipatory repairs," such as insertions and false starts, than in corrective ones even though their IL is still not error-free (O'Connor, 1988, p 256).

Shehadeh (1999) discusses research studies that show how repair work is used in NNS interaction. He argues that these studies (Kasper 1985, Shehadeh 1991) show a direct relationship between the amount of self-repair and L2 proficiency. Highly proficient NNS's conversational interactions show a significantly greater use of self-repair compared to any other kind of repair work.

Verhoeven (1989) studies the developmental changes in self-repair in seventy-four Turkish children. He investigates self-repairs in the spontaneous speech of these children speaking Dutch as a second language.
Verhoeven concludes that with increasing L2 proficiency, self-repair decreases, and he further points out that empirical research suggests that L2 learners of lower L2 development produce more self-repair than L2 learners at higher levels.

Van Hest and Poulisse (1997) discuss studies that deal with the analysis of self-repair in both L1 and L2 interaction. They compare and contrast L1 (e.g. Blackmer & Mitton, 1991; Bredart, 1991; Levelt, 1983; et al.) and L2 self-repair studies (e.g. Fathman, 1980; Hieke, 1981; Wiese, 1982; Verhoeven, 1989; et al.). They point out while there is a considerable amount of empirical and formal research of adult and child self-repair, studies of L2 self-repair are very few, and they lack theoretical foundations and depth of analysis. They conclude that though empirical research suggests that the frequency of self-repair relates to levels of L2 development, more in depth and larger scale studies of L2 self-repair studies are needed as well as studies that focus on self-repair by L2 speakers at different levels of proficiency.

Similarly, Williams (1999), who investigated eight classroom learners at different levels of proficiency, suggests that lower level proficient students give their
attention to words instead of other linguistic features. She argues that learners are overwhelmed with the demands of communication in their L2 combined with their lack of L2 knowledge.

Summarizing, these researchers (Kasper, 1985; O'Connor, 1988; Van Hest 1996, 1997; Verhoeven, 1989; Williams, 1999) conclude that there is a connection between NNS proficiency, the frequency in which subjects self-repair, and the type of self-repair they use. These studies demonstrate that with increasing L2 proficiency there is a shift from simple error repairs to more complex discourse-level repairs.

2.5 Need for Further Research

Although these studies on self-repair provide useful insights into L2 learners’ language development processes, many have not addressed different populations of English as a Second Language (ESL) students specifically. For instance, O’Connor (1998) and Verhoeven (1989) analyze the speech of L2 French and Dutch learners respectively while Van Hest (1996) analyzes the speech of Dutch English as a Foreign Language (EFL) learners, who are an intrinsically different population. As pointed out by Gass and Selinker
knowledgeable of the L2 grammar. Therefore, it could be argued that repair would function differently between these two different populations of students since they pay attention to different linguistic features.

Also, as pointed out by Van Hest and Poulisse (1997) though empirical research suggests that the frequency of self-repair relates to levels of L2 development, there is a need for more studies that focus on self-repair by L2 speakers at different levels of proficiency and whether or not there is a distinction between levels of language development.

In addition, these studies have not examined differences in the frequency and use of self-repair of NNSs in NNS-NS interaction and NNS-NNS interactions. Differences in these interactions may reveal ways L2 learners’ frequency and use of self-repair varies depending on different interlocutors (i.e. whether the interlocutor is a NNS or NS of English).
CHAPTER THREE

SUBJECTS AND METHODOLOGY

3.1 Research Questions

This thesis' central inquiry is twofold. The first aspect of analysis intends to determine the way in which self-repair might be related to L2 development and the L2 learner's language proficiency level. The second aspect of analysis intends to determine whether NNS use self-repair differently when the interlocutor is a NS or a NNS of English.

3.2 Subjects

3.2.1. Participants' Background

The subjects who participated in this research project were two advanced and two intermediate ESL learners and four NS of English. The NNS were students at Imperial Valley College in Imperial, California, and their L2 proficiency was predetermined by placement in respective ESL classes after taking an ESL assessment test called CELSA (Combined English Language Skills Assessment). All four ESL students are United States residents whose first language (L1) is Spanish. The four NS of English were
enrolled students in the courses English 306W, which is a Children’s Literature course, and/or Geology 301, which is a Natural Disasters’ geology course at San Diego State University in Calexico, California.

The NNS are three females and one male in their early-twenties and forties, and the NS are three females and one male in their early-twenties and mid-thirties. In order to offer anonymity, instead of their names, they were assigned letters. The two intermediate ESL students are both females, and they were assigned the letters “Q” and “S” (See Table 2). Similarly, the two advanced ESL students, a male and a female, were assigned the letters “P” and “R”: P is a male, and R is a female (See Table 2). Finally, the four NS were assigned the letters “L,” “M,” “N,” and “O” (See Table 2). L, M, and N are females, and O is a male NS.

3.2.2 Recruitment

I contacted several instructors at both institutions, Imperial Valley College and San Diego State University, Imperial Valley campus, in order to get permission to recruit students in their classes. Then, once some of these instructors agreed to let me recruit students in their classes, we, the professors and I, set a date in which I would invite students to volunteer.
During my presentation, I was first greeted and introduced by the instructor. Next, I briefly introduced myself as an Imperial Valley College instructor and continued to give a brief explanation of the research project, which included the purpose of study, data gathering methodology, and projected duration. Then, prospective subjects were invited to volunteer. Those students interested in volunteering signed up at the end of their class sessions on a sign-up sheet given to their professors. On the sign-up sheet, subjects provided their name, some contact information such as phone or email, and available days and times to participate in the recording sessions.

After the subjects were recruited, their availability schedules were considered in order to pair them up. Thus, subjects with matching schedules were put together in a dyad. The resulting dyads were six, which were arranged as shown in Table 2.
Table 2. Organization of Dyads

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Subject 1 Type</th>
<th>Subject 2 Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P</td>
<td>Q</td>
</tr>
<tr>
<td>2</td>
<td>R</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>P</td>
<td>M</td>
</tr>
<tr>
<td>4</td>
<td>R</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Q</td>
<td>L</td>
</tr>
<tr>
<td>6</td>
<td>S</td>
<td>O</td>
</tr>
</tbody>
</table>

Other aspects considered while forming these dyads, aside from the volunteer’s availability, was L2 level of proficiency, and the number of NS needed to match number of NNS. These were of great importance to the study since the interactions of these dyads would provide the data from which answers to these questions could be drawn. For instance, in order to determine if self-repair is related to L2 development and the L2 learner’s language proficiency level, self-repair use of different level learners during interactions of NNS needed to be compared and contrasted. Also, in order to determine whether a difference in interlocutors, either NS or NNS, influences the way in which they self-repair, NNS needed to be paired up with NS of English.

The volunteers were contacted, and appointments were made for two recording sessions, which were two weeks
apart. Each recording session took place at Imperial Valley College Study Skills Center, which provides private study cubicles.

In addition, prior to the recordings, the volunteers were asked to read and to sign informed consent forms required by the California State University, San Bernardino University Institutional Review Board.

3.3 Tasks

The data were collected via dyad group information gap and decision-making exercises, which served as conversational prompts (See Appendix A). There were two information gap tasks and two decision-making tasks. These tasks were taken from research on NNS interaction conducted by Garcia-Mayo and Pica (2000).

The information gap exercises, “The Unlucky Man” and “Mathematical Games” (Ur, 1996), are a series of vignettes composing a larger story, which the subjects had to arrange in sequential order (See Appendix A). Each partner in the dyad had a folder with a set of instructions and two envelopes. One of the envelopes was marked “yours,” and the other was labeled “your partner’s.” The pictures in the envelope marked “yours” were labeled with letters “a”
through “i” whereas the pictures in the envelope marked “your partner’s” were left unlabeled, so they could label them based on the descriptions of their partner since these two sets of pictures made up the complete sequence. The object was to have each subject describe his or her set of pictures to his or her partner without showing them. Once each partner described his or her set of pictures, they had to arrange these pictures in sequential order individually. Then, each partner, without showing his or her pictures, had to share the sequence he or she had and negotiate to agree on a sequence.

The decision-making exercise, “The Deserted Island” and “Choosing Candidates” (Ur, 1996), consisted of scenarios in which the dyads were given different options to choose from in whichever way they agreed upon (See Appendix A). For the task named “The Desert Island,” they were asked to pretend that they were on a sinking ship and had to choose four items they would take with them to a deserted island. For the other activity, “Choosing Candidates,” they had to pick the most suitable candidate to receive a scholarship to attend law school.

These types of conversational prompts, the information gap and decision-making exercises, were chosen because they
require the participation of both participants in the dyad in order to be completed, which facilitates equal participation from interlocutors. Moreover, both tasks require a good amount of negotiation of meaning and ideas, which elicit interaction (Ellis, Tanaka, & Yamazaki, 1994; Hall, 1995; Pica, 1996a) that can result in a larger corpora of repair.

During their first recording session, each dyad worked on one information-gap task, "The Unlucky Man," and one decision-making task, "The Deserted Island." During the second session, they worked on the other two activities, "Mathematical Games" and "Choosing Candidates" (See Appendix B).

3.4 Data Collection Protocol

In order to reduce anxiety, each recording session started with the introduction of the volunteers to each other, a general description of the research project, and a guarantee of anonymity. Next, each subject received a folder containing the session's exercises, which were both an information gap and a decision-making exercise, and their assigned cubicle. Then, they were given an
explanation of the instructions and recording procedure before being dismissed to their assigned cubicle.

For the recording procedure, subjects were told that tape recorders would begin to record by depressing the pause button, which was to be turned on once they entered the cubicle. Moreover, subjects were instructed not to interfere with the recording of the conversation by pausing or stopping the tape recorder ensuring that their conversations would be captured in their entirety. Finally, they were instructed to stop the recording once they were finished with the two exercises. This same process was repeated for the second recording session.

3.5 Data Analysis

3.5.1 Transcription

After all recordings were made, these analog recordings (tapes) were transferred to a digital format (MP3) in order to be accurately timed and transcribed. Once in this format, it was determined that the six recordings lasted an average of twenty-nine minutes ($x = 29.0$ min). The longest recording was over thirty-nine minutes long, and the shortest recording was almost twenty minutes long (See Table 3).
Table 3. Recording Session Duration

<table>
<thead>
<tr>
<th>Recording Labeled</th>
<th>Time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (P→Q)</td>
<td>38.6</td>
</tr>
<tr>
<td>2 (R→S)</td>
<td>19.7</td>
</tr>
<tr>
<td>3 (P→M)</td>
<td>38.7</td>
</tr>
<tr>
<td>4 (R→N)</td>
<td>29.3</td>
</tr>
<tr>
<td>5 (Q→L)</td>
<td>28.8</td>
</tr>
<tr>
<td>6 (S→O)</td>
<td>19.2</td>
</tr>
<tr>
<td>Average</td>
<td>29.0</td>
</tr>
</tbody>
</table>

Next, verbatim transcriptions were made for all conversations. In other words, recordings were transcribed exactly as spoken, without any attempts at correcting grammar, pronunciation, punctuation, or sense of the content (Table 4).

Table 4. Transcript Titles

<table>
<thead>
<tr>
<th>Recording Labeled</th>
<th>Transcript Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (P→Q)</td>
<td>Oh, my god!</td>
</tr>
<tr>
<td>2 (R→S)</td>
<td>No, no, yes</td>
</tr>
<tr>
<td>3 (P→M)</td>
<td>They’re outies</td>
</tr>
<tr>
<td>4 (R→N)</td>
<td>Uh huh</td>
</tr>
<tr>
<td>5 (Q→L)</td>
<td>The wolf or the cabbage</td>
</tr>
<tr>
<td>6 (S→O)</td>
<td>Hmmm</td>
</tr>
</tbody>
</table>

Also, timed pauses, which were longer than a second, and micro pauses, for pauses less than .2 of a second, were
noted. However, these pauses, timed and micro pauses, were not accounted for in the analysis of self-repair coding since, as pointed out by Blackmer and Mitton (1991), the most detailed theories of monitoring and timing of repairs face challenges. These challenges have to do with cut-off-times for self-repairs, i.e. how long a pause has to be in order to be considered a sign of speech monitoring and/or self-repair. For instance, they point out that according to their research, based on 1525 repairs made in the conversational turns of 61 callers to a radio talk show, Laver's (1980) theory of monitoring is shown to be incongruent with the observed times, as is Levelt's (1983, 1989) main interruption rule.

Thus, each transcription was examined carefully with particular attention paid to various forms of self-repairs. Any kind of uttered self-repair or what seemed to be a form of it was noted. Then, using the categorization of self-repair found in Kormos (1999), I classified the self-repair.

3.5.2 Self-Repair Coding

In these transcripts, different types of self-repair were identified. They were classified as either error,
different information, appropriacy or rephrasing self-repair (Kormos 1999b).

**Error Self-repair.** This type of self-repair is abbreviated as E-repair. This type of self-repair might be recognized as a mistake or an “accidental lapse.” In this study it was also further subdivided into EL-repair or lexical-error, EG-repair or grammatical-error, and EF-repair or phonological-error (Kormos, 1999).

An EL-repair or lexical error is a correction or replacement made when the interlocutor believes she/he has the “wrong” word. An example of an EL-repair will be the following (“Oh, my god!,” 2005):

(24) 3 Q: oh my god↑ ok (.) this is a some some (.)
→ 4 this is uh a river ocean <laughs> I don’t
5 know (.)

In this example, NNS Q is uncertain of what word to use to describe a picture in the information gap task “Mathematical Games,” so Q suggests a river or an ocean and
then admits not being sure of how to describe the body of water.

In an EG-repair or a grammatical repair, the interlocutor changes the utterance when he/she perceives an error in grammatical structure. For example ("Oh, my god!", 2005):

(25) 382 P: I think (. ) you know what (. ) I think two
→ 381 guns is are going to be helpful (. )

In this example, NNS P self-repairs correcting the utterance by changing the form of the verb be in "two guns is are" since the plural of the word "guns" calls for the plural form of the verb be "are" not "is."

Next, an EF-repair denotes a change in the pronunciation of an utterance. For illustration ("No, no, yes," 2005):

(26) 9 R: you must say the letter (. ) I haven’t told
→ 10 the lit- letter

In this utterance, NNS R recognizes a mistake in the pronunciation of the vowel sound in the word letter and changes it before finishing the utterance.
**Different-Information Self-repair.** A different-information (or d-repair) involves a speaker's reformulating already produced information. This type of self-repair is subdivided into DM-repairs or message-replacement, DI-repairs or inappropriate-information, and DO-repairs or ordering-error (Kormos, 1999).

In a DM-repair, interlocutors begin an utterance and stop it to replace it with something completely different. For example consider the following utterance ("The wolf or the cabbage," 2005):

(27)→90 Q: you need uh you need uh you can take this

91 L: the partner ones↑

In this example, the NNS Q decides to replace "you need" with "you can take this" to explain to partner L which batch of pictures must be used for the information gap task "Mathematical Games."

Next, an inappropriate information or DI-repair is made when an interlocutor discovers an inaccuracy in a previously uttered message and, therefore, only replaces
the inaccurate information. A DI-repair is exemplified by
the following utterance ("They’re outies," 2005):

(28)  50 P: okay(.) letter C(.) letter C the man is
      51  rowing back(.) is rowing back and he’s
→  52  going to pick up the uh the cabbage
      <hums>
      53  the goat

In this example, NNS P describes a picture in the
information gap activity "Mathematical Games" in which a
man is crossing three cargo items, two of these being a
goat and a cabbage. Thus, while describing the picture
interlocutor P first says that the picture shows a man
rowing a cabbage across the river, but quickly realizes
that it is not the cabbage, but the goat the man is
carrying in his boat across the river.

In an ordering error or DO-repair the interlocutors
start an utterance and stop it to include information that
was excluded and that they perceive might be important to
provide first. For instance, consider the following ("Oh,
my god!," 2005):

(29)→ 467 P: Please let me tell you the(.) I am I’m
in a deserted
island will have problems to survive

In this example, the interlocutors are discussing the
decision task "The Deserted Island." Thus, NNS P wants to
explain the importance of these choices, and though P
starts with "let me tell you," this interlocutor abandons
this momentarily to say "these things maybe you do not
think they are helpful," but resumes his initial utterance
saying "let me tell you (.) a woman like you in a deserted
island will have problems to survive."

**Appropriacy Self-repair.** An appropriacy self-repair or
a-repair is a kind of self-correction in which the
reformulation of the information is due to a perceived lack
of precision by the speaker. This type of self-repair is
further divided into appropriate-level-of-information or
AL-repair, pragmatic appropriateness or AP-repair, use of
"good language" or AG-repairs, coherence (AC-repairs) and
ambiguous reference or AA-repair (Kormos, 1999).

An appropriate level-of-information or AL-repair is a
self-correction made when the interlocutors believe that
they need to add some information to clarify or add detail.
An example of an AL-repair is the following ("No, no, yes," 2005):

(30)  19  S:  somebody come behind him and have (.)
       and
→  20  in his in his left (.) in his hand has a
       big thing

Here NNS S decides to repair and specify how a person, in a picture, is holding a club "in his left (.) in his hand" to improve the description.

A pragmatic appropriateness AP-repair is a type of self-repair made when the interlocutor believes he or she has made a pragmatic discourse transgression. For instance, consider the following example ("Uh huh," 2005):

(31)  284  R:  I think that uuh you know what (.)
       forget
→  285  it (.2) no no sorry is never mind (.)
       never mind (. ) right is not important

In the previous utterance, the interlocutors were discussing the decision task "Choosing Candidates" when NNS R might have recognized that saying "forget it" may be
construed as rude. R apologizes and says "is never mind" and "is not important" to clarify further the desire not to continue her thought without being rude. R may be behaving like this because drawing on Brown and Levinson's (1987) Politeness Theory, R is trying to save the hearer's "face." Face refers to the respect that an individual has for himself or herself, and maintaining that "self-esteem" in public or in private situations. Thus, usually a speaker will try to avoid embarrassing his/her interlocutor or making him/her feel uncomfortable. In other words, people in general will develop politeness strategies, such as the one used by R, in order to deal with these situations.

An AG-repair or repair for good language is a kind of repair that interlocutors use when they perceive that their utterance lacks sophistication or is overly informal. For illustration consider the following ("Oh, my god!", 2005):

(32) 37 Q: yes↑(.) ok this is it(.) I need to put it back

→ 38 P: yeah(.) I mean yes

In this example, interlocutor casually says "yeah" and then repairs and says "yes" by uttering "I mean yes." This
example shows that though this utterance is not incorrect or inappropriate, the interlocutor chooses to change it to make it formal. In an AG-repair, as opposed to AP-repair, the interlocutor makes a change in coding not because he or she thinks that his or her language might be offensive or inappropriate, but because he or she thinks the utterance does not sound refined or formal.

Rephrasing Self-repair. A rephrasing self-repair involves a change in coding because of uncertainty about its correctness without abandoning the main or initial idea (Kormos, 1999). For example (“They’re outies,” 2005):

(33) → 272 P: because I think I think that hmmm people
(.
) when you’re engaged(.)
when you are married with somebody(.)
you don’t have(.2)
nobody can assure you that he is going to support you(.) your whole life

In this example, the interlocutors are discussing the decision task “Choosing Candidates.” In this utterance, NNS P is explaining why a woman who marries “well” should not depend on her husband for financial support. However, P starts off by saying “people” and then repairs and becomes more specific about what kind of people he is talking
about, "when you’re engaged" or "when you’re married." Once P gets that out of the way this speaker arrives to his conclusion “nobody can assure you that he is going to support you.” Thus, though P initially changes coding, he does not abandon the utterance and his train of thought remains the same.

3.5.3 Categorizing the Data

After classifying the self-repairs, the incidence of each self-repair by NNS was categorized and counted.

Then, to compare and contrast the use of self-repairs by different level NNS in NS-NNS and NNS-NNS dyads, the number of self-repairs were calculated in each of the following categories:

1. Frequency and type of self-repair by level
2. Frequency and type of self-repair by level in dyads NNS → NS
3. Frequency and type of self-repair by level in dyads NNS → NNS

The first category of data was analyzed to determine if there is a correlation of frequency and type of self-repair depending to the predetermined levels of L2 student’s proficiency. The second and third categorizations
were analyzed to determine any differences or similarities of repair in the L2 learner's interactions depending on interlocutor.
CHAPTER FOUR

FINDINGS

As previously mentioned, through this research study, I wanted to know the way in which self-repair, one of the shaping factors of interaction, may be related to L2 development and the L2 learner’s language proficiency level. Second, I wanted to find out whether or not there were any differences or similarities in the way NNS repaired depending on whether their interlocutors were NNS or NS.

When answering the first research question, it was found that NNS at both levels, advanced and intermediate ESL classes, repaired with almost the same frequency rate: Advanced NNS repaired at a frequency rate of 38.2 repairs per hour of conversation while Intermediate NNS repaired at a frequency rate of 39.3 repairs per hour (see Tables 5 and 6). However, it can also be noted that with lower L2 proficiency speakers, Intermediate NNS, the recurrence of Error-repairs, 21.4 repairs per hour (see Table 6), was more than twice as much compared to higher L2 proficiency speakers, Advanced NNS, who did error repairs at a rate of only 9.3 repairs per hour (see Table 5).
Table 5. Self-Repairs for Advanced Non-Native Speakers

<table>
<thead>
<tr>
<th>Self-repair</th>
<th>Repairs/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-repair</td>
<td>9.3</td>
</tr>
<tr>
<td>d-repair</td>
<td>15.5</td>
</tr>
<tr>
<td>r-repair</td>
<td>6.2</td>
</tr>
<tr>
<td>a-repair</td>
<td>7.2</td>
</tr>
<tr>
<td>Total of self-repairs</td>
<td>38.2</td>
</tr>
</tbody>
</table>

Table 6. Self-Repairs for Intermediate Non-Native Speakers

<table>
<thead>
<tr>
<th>Self-repair</th>
<th>Repairs/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-repair</td>
<td>21.4</td>
</tr>
<tr>
<td>d-repair</td>
<td>9.7</td>
</tr>
<tr>
<td>r-repair</td>
<td>4.1</td>
</tr>
<tr>
<td>a-repair</td>
<td>4.1</td>
</tr>
<tr>
<td>Total of self-repairs</td>
<td>39.3</td>
</tr>
</tbody>
</table>

Also, with higher L2 proficiency speakers, Advanced NNS, the highest recurring type of repair was Different-Information repair (15.2), whereas lower L2 proficiency speakers, Intermediate NNS, used this type of repair at only a rate of 9.7 repairs per hour.

Moreover, when answering the question of whether there were any differences or similarities in the ways NNS
repaired depending on their interlocutors, the following was found:

1. Intermediate and Advanced NNS repaired following the same patterns of repair independently of the interlocutor, that is whether the interlocutor was a NNS or NS (see Tables 7, 8, 9, and 10).

Table 7. Self-Repairs for Intermediate Non-Native Speakers Interacting with Non-Native Speakers

<table>
<thead>
<tr>
<th>Self-repair</th>
<th>Repairs/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-repair</td>
<td>18.54</td>
</tr>
<tr>
<td>d-repair</td>
<td>8.24</td>
</tr>
<tr>
<td>r-repair</td>
<td>3.09</td>
</tr>
<tr>
<td>a-repair</td>
<td>2.06</td>
</tr>
<tr>
<td><strong>Total repairs/hour</strong></td>
<td><strong>31.93</strong></td>
</tr>
</tbody>
</table>

Table 8. Self-Repairs for Intermediate Non-Native Speakers Interacting with Native Speakers

<table>
<thead>
<tr>
<th>Self-repair</th>
<th>Repairs/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-repair</td>
<td>27.07</td>
</tr>
<tr>
<td>d-repair</td>
<td>12.49</td>
</tr>
<tr>
<td>r-repair</td>
<td>6.25</td>
</tr>
<tr>
<td>a-repair</td>
<td>8.33</td>
</tr>
<tr>
<td><strong>Total repairs/hour</strong></td>
<td><strong>54.14</strong></td>
</tr>
</tbody>
</table>
Table 9.  Self Repairs for Advanced Non-Native Speakers Interacting with Non-Native Speakers

<table>
<thead>
<tr>
<th>Self-repair</th>
<th>Repairs/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-repair</td>
<td>9.27</td>
</tr>
<tr>
<td>d-repair</td>
<td>16.48</td>
</tr>
<tr>
<td>r-repair</td>
<td>7.21</td>
</tr>
<tr>
<td>a-repair</td>
<td>9.27</td>
</tr>
<tr>
<td>Total repairs/hour</td>
<td>42.23</td>
</tr>
</tbody>
</table>

Table 10.  Self Repairs for Advanced Non-Native Speakers Interacting with Native Speakers

<table>
<thead>
<tr>
<th>Self-repair</th>
<th>Repairs/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-repair</td>
<td>9.33</td>
</tr>
<tr>
<td>d-repair</td>
<td>14.52</td>
</tr>
<tr>
<td>r-repair</td>
<td>5.18</td>
</tr>
<tr>
<td>a-repair</td>
<td>5.18</td>
</tr>
<tr>
<td>Total repairs/hour</td>
<td>34.22</td>
</tr>
</tbody>
</table>

This was determined by looking at the frequency for each type of self-repair for both Intermediate and Advanced NNS. The NNS's self-repairs do not vary much across NS or NNS interlocutors in terms of which types of repairs NNS used most frequently. For example, as shown in Tables 7 and 8, Intermediate NNS used a greater amount of e-repairs.
both when speaking to a NS and when speaking to a NNS. Similarly, Advanced NNS used fewer e-repairs than discourse level repairs such as Different-information-repairs when speaking to both NS and NNS, as shown in Tables 9 and 10.

2. Advanced NNS’s total frequency rate of self-repairs decreased when speaking to NS (See Tables 9 and 10) whereas Intermediate NNS total frequency rate of self-repairs increased when interacting with NS (See Tables 7 and 8).

In sum, Advanced NNS did not change their patterns of usage of self-repair (i.e. they used more discourse level repairs compared to error repairs). However, they self-repaired less often when interacting with NS (See Tables 9 and 10). In other words, while they repaired at a rate of 42.2 repair/hr with NNS, they repaired at a rate of 34.2 repairs/hr with NS, which is a decrease of since 19.0% seems fairly large. In contrast with Advanced NNS, Intermediate NNS repaired more often, about 69.5% more, when speaking to a NS. In other words, the total repair frequency went form 31.9 repairs/hour when talking to a NNS to 54.1 repairs/hour when talking to a NS.
CHAPTER FIVE
DISCUSSION

From the data collected, it can be concluded that while there was not a correlation between overall frequency of self-repair and language proficiency, there was a relationship between frequency of particular types of repair and language proficiency. Specifically, there seems to be a correspondence between the sophistication of the self-repairs utilized by NNS and their level. Speakers with lower proficiency, intermediate ESL students, showed a tendency to use a greater amount of Error-repair self-repairs (21.4 repairs/hour), whereas more proficient speakers, advanced ESL students, showed a tendency to use discourse based self-repairs (28.9 repairs/hour) such as Different-Information, Appropriacy, and Rephrasing self-repairs (See Tables 5 and 6).

This difference in use of repair seems to be due to the L2 learner's proficiency (Kasper, 1985, O'Connor, 1988; Van Hest 1996, 1997; Verhoeven, 1989) since lower proficiency learners might be still developing basic aspects of language such as vocabulary and pronunciation. On the other hand, higher proficiency learners, Advanced
NNS, might have a better grasp of these basic aspects of language and, therefore, seem to concentrate on discourse level repairs, which involve the comprehension and analysis of ideas.

Moreover, it can also be inferred that different level NNS behave differently when interacting with different kinds of interlocutors, i.e. NNS or NS. Intermediate NNS self-repair more when talking to NS of English (an increase of 69.5% as shown in Tables 7 and 8), which might be due to their L2 development level which in turn might produce a lack of confidence on the part of the NNS. Also, in other studies of interactions involving NNS, and I conjecture especially interactions involving lower level NNS, NNS use a greater amount of negotiation in order to clarify or to replace unfamiliar terms and/or pronunciation a NS might bring to the conversational exchanges (Pica & Lincoln-Porter, 1996; Pica, 1996a). However, since Advanced NNS self-repair less (a decrease of 19.0%) when talking to NS (See Tables 9 and 10), the cause remains of a more ambiguous origin. This decrease in the rate of self-repair was due to a 44.1% decrease in a-repairs (See Tables 9 and 10), which is a kind of self-repair in which the reformulation of the information is due to a perceived lack
of precision by the speaker. Hence, I infer that this difference may be due to the NNS's perception that, when speaking to a NS as compared to a NNS, there might not be need to clarify as much since their interlocutor has mastery of the L2. Therefore, this perception results in the lack of negotiation of meaning, which in turn affects the amount of repair. Also, Pica and Lincoln-Porter (1996) and Pica (1996b) point out that though during NNS-NS interaction and negotiation of meaning, NS's utterances provide a window for the NNS to the TL forms and give some indication as to what are native-like or non-native-like features of the NNS's IL, these indications are not explicit enough in order to aide the NNS to make the necessary changes to their IL rules. Thus, I hypothesize Advanced NNS might not recognize opportunities to clarify or to correct non-native features in their IL.
CHAPTER SIX
CONCLUSION

When this project was started, there were two research questions. The first one dealt with determining a possible correlation between frequency and type of self-repair and the levels of L2 proficiency determined through written tests such as CELSA, which was used at the community college where the ESL subjects were recruited. The second question searched for a way to determine if there were any differences or similarities in L2 learner interaction depending on the interlocutor’s L1 (i.e. whether the interlocutor is a NS or NNS of English).

The findings of this study in regard to the first question have implications for such testing practices as those used by Imperial Valley College and many other institutions that offer courses in ESL, which have faced considerable criticism (Canale & Swain, 1980; Morrow, 1979; Savingnon, 1972, 1983; Widdowson, 1978, 1979, 1983). As discussed in Bachman (2002), these practices are based on a theoretical view of language ability as consisting of skills (i.e. reading, writing, and listening) and components (e.g. vocabulary, grammar, and pronunciation).
Also, this testing practice focuses on testing isolated discrete points of language. However, according to newer views of language testing, this practice must be broadened to include "communicative competence" (Bachman, 2002, p. 8). In other words, language development testing must consider the use of language as the creation of discourse, or the negotiation of meaning, and the dynamic quality of language, which relates to the use of self-repair as a characteristic of discourse and its correlation with L2 development. Moreover, using a communicative competence approach to testing would help in understanding individual variation of the student's interlanguage (IL) since they usually only measure syntactic knowledge and vocabulary. It could also be inferred, that in order to improve current testing practices, a component such as NNS use of self-repair during interaction should be included.

This has led me to conclude that in order to have better language testing tools aside from incorporating the aspect of communicative competence, the language development test's interaction/repair component should include both NS and NNS interlocutors, since the differences in NNS interactions might provide more cues of language competence to determine the L2 learner's level of
proficiency. Moreover, this testing practice would also prove beneficial to L2 learners since as pointed out in Pica and Porter (1996) interactions between L2 learners facilitate their comprehension of linguistic forms through the negotiation of meaning. Through this negotiation of meaning learners make a greater amount of output modification, which in turn betters their comprehension of the target language (TL). Thus, NNS-NNS interaction through negotiation of meaning contributes in ways in which interaction between NNS and NS cannot. Thus, L2 learners taking a test in communicative competence may learn about the ways in which they are using language and help them to concentrate on discourse based language features instead of error-corrections.

Nevertheless, there are certain aspects of this project that might require further development. For instance, it might be important to increase the number of subjects participating in such a project in order to analyze the results’ reliability and diminish the possibility of error or chance. Moreover, it might be interesting to see if varying the backgrounds or other socio-economic aspects of the participating subjects...
affects in any way the results yielded (i.e. pair NNS students with NNS professionals) due to social distance.
APPENDIX A

CONVERSATIONAL PROMPTS
ACTIVITY #1

THE UNLUCKY MAN

Instructions: In this activity each one of you have a set of pictures which, when properly assembled, form a logical sequence of events. You will describe each one of your pictures to your partner WITHOUT SHOWING them to him/her. Then, as a team, you will decide their correct order.

Rules:

1. You MUST speak English at all times
2. Your pictures are in the envelope marked YOURS. Open it and describe them to your partner
3. You CANNOT show your pictures to your partner
4. When you start receiving descriptions of your partner's pictures, open the envelope marked PARTNER and find the picture described to you
5. You MUST agree on a sequence before you show your pictures and the order for the sequence

Story:

In this story, The Unlucky Man, Wilbur has left work to go home, but things will get more complicated for Wilbur than he could have ever imagined.
ACTIVITY #2

THE DESERTED ISLAND

Instructions: In this activity, you must make a decision. Suppose you and a friend (your partner) are on a sinking ship, the TITANIC II, and while you are sinking, each one of you WILL TAKE two things with you to a Deserted Island you see not far from the place where the ship is sinking. As partners decide which items you will take to this island and why.

Items:

- box of matches
- 50 feet of rope
- portable heating unit
- one case of powder milk
- magnetic compass
- 5 gallons of water
- signal flares
- solar-power radio
- food concentrate
- parachute silk
- 2 guns
- maps of the stars
- life boat
- first aid kit

Rules:

1. You MUST speak English at all times
2. You MUST pick 4 things from the list (two items each)
3. You MUST explain why those things are important to live on the island
ACTIVITY #3

GETTING ACROSS THE RIVER

Instructions: In this activity each one of you have a set of pictures which, when properly assembled, form a logical sequence of events. You will describe each one of your pictures to your partner WITHOUT SHOWING them to him/her. Then, as a team, you will decide their correct order.

Rules:

1. You MUST speak English at all times
2. Your pictures are in the envelope marked YOURS. Open it and describe them to your partner.
3. You CANNOT show your pictures to your partner.
4. When you start receiving descriptions of your partner’s pictures, open the envelope marked PARTNER and find the picture described to you.
5. You MUST agree on a sequence before you show your pictures and the order for the sequence.

Story:

In this story, Getting Across the River, a man needs to get a goat, a wolf, and a cabbage across a river. He has a very small boat that will only carry him and one other thing at a time. He found a way to get all three things across the river.

REMEMBER: the wolf will eat the goat, and the goat will eat the cabbage if the man leaves them alone together.
ACTIVITY #4

CHOOSING THE CANDIDATE

Instructions: In this activity, you must make a decision. You are part of a committee that is going to choose a student that will receive a scholarship (prize), which includes full tuition fees and upkeep for the four-year course leading to a degree in law at a prestigious university. Five students are the finalists and they all took a test and got very similar scores. Which one will you pick to get the scholarship?

The Candidates:

Candidate #1: Albert Smith. Age 37. He is not outstanding, but he is very hard working. He is married with three kids; he is now a taxi driver. He applied because he wants to impress his wife. During the interview, he was nervous and is not sure about studying law. If he does not get the scholarship, he will continue taxi-driving.

Candidate #2: Basil Katz. Age 19. He is brilliant but not very hard working. He is funny and likable. He participates in pacific protest and has been in jail because of them. He had a lot of girlfriends, but he treats them badly. He likes music and if he does not get the scholarship, he will make this his career.

Candidate #3: Carol Andersen. Age 20. She is a quiet, attractive, responsible and smart girl. She is engaged to be married to a doctor, but she would like to finish her university studies before settling down. Her boyfriend says: “I want Carol to finish her career, but of course once she is married, home and children will occupy her first and foremost.” Her parents cannot afford to pay for the courses.

Candidate #4: Daphne Brown. Age 21. She is single, the daughter and granddaughter of lawyers. She is ambitious and career-minded. Her grades are A and Cs. She was depressed and stressed last year and spent three months in a hospital. She is fine now, but she was in court for marijuana possession. Her parents will not pay for her studies. She is aggressive and quick-tempered, but generous and a good friend.

Candidate #5: Edward Manbu. Age 24. He was in the army. He is divorced with no children. He is motivated and wants to go into politics. “I want this opportunity more than anything,” he says, “and only the scholarship can get it for me.” While in the army, he was once found guilty of accepting bribes. He is charming, fluent and eloquent. He is an American citizen, but retains his African citizenship and plans to return there someday.

Rules:
1. You MUST speak English at all times
2. You MUST pick the candidate you believe has the most chances at succeeding
3. You MUST explain why you believe this candidate is better than the other candidates to receive the scholarship
4. You both MUST agree on a single candidate in order to finish
APPENDIX B

ORGANIZATION OF DYADS
### Session #1 NNS → NNS

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Information Gap</th>
<th>Decision Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>P: NNS (advanced)</td>
<td>The Unlucky Man</td>
<td>The Deserted Island</td>
</tr>
<tr>
<td>Q: NNS (intermediate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R: NNS (advanced)</td>
<td>The Unlucky Man</td>
<td>The Deserted Island</td>
</tr>
<tr>
<td>S: NNS (intermediate)</td>
<td></td>
<td></td>
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</tbody>
</table>

### Session #2 NNS → NS

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Information Gap</th>
<th>Decision Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>P: NNS (advanced)</td>
<td>Getting Across the River</td>
<td>Choosing the Candidate</td>
</tr>
<tr>
<td>M: NS</td>
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</tr>
<tr>
<td>R: NNS (advanced)</td>
<td>Getting Across the River</td>
<td>Choosing the Candidate</td>
</tr>
<tr>
<td>N: NS</td>
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<tr>
<td>Q: NNS (intermediate)</td>
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<td>Choosing the Candidate</td>
</tr>
<tr>
<td>L: NS</td>
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<td></td>
</tr>
<tr>
<td>S: NNS (intermediate)</td>
<td>Getting Across the River</td>
<td>Choosing the Candidate</td>
</tr>
<tr>
<td>O: NS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NNS: Non-native speaker  
NS: Native speaker  
→: Speaking to
REFERENCES


