ABSTRACT

L1 INFLUENCE ON ADULT L2 LEARNERS’ ATTENTION TO ENGLISH ARTICLES

This study addresses the degree of L1 influence on interlanguage development and L2 grammar acquisition. Most researchers fall into two main categories of thought on L1 influence and use production or judgment data to support their theories. The Absolute L1 Influence theory argues that L1 grammatical structures have both positive and negative influence on interlanguage grammar development. The Partial L1 Influence theory suggests that only lexical categories influence interlanguage grammar and that functional categories (like articles) do not transfer or influence L2 acquisition. I use an attention test to study the acquisition of English articles by English learners from L1 backgrounds with article systems present or absent from their functional syntactic structures. An attention test has been used to study the presence or absence of articles in aphasics’ grammar and is indicative of the cognitive or mental grammatical representations that cannot be produced or are produced with errors. Using this paradigm, I am able to determine if the two groups of learners acquire article structures in the same way or based on their L1 syntactic structure availability.

Kathryn T. Gorman
May 2014
L1 INFLUENCE ON ADULT L2 LEARNERS’ ATTENTION TO ENGLISH ARTICLES

by

Kathryn T. Gorman

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Linguistics in the College of Arts and Humanities California State University, Fresno

May 2014
APPROVED

For the Department of Linguistics:

We, the undersigned, certify that the thesis of the following student meets the required standards of scholarship, format, and style of the university and the student’s graduate degree program for the awarding of the master’s degree.

______________________________
Kathryn T. Gorman
Thesis Author

______________________________
Brian Agbayani (Chair)  Linguistics

______________________________
Sean Fulop  Linguistics

______________________________
Xinchun Wang  Linguistics

For the University Graduate Committee:

______________________________
Dean, Division of Graduate Studies
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CHAPTER 1: INTRODUCTION

1.1 Focus of Thesis

The purpose of this study is to determine the degree of L1 influence on the interlanguage acquisition of definite and indefinite articles for Intermediate English L2 learners from Similar Article Structure (SAS) L1 backgrounds and No Article Structure (NAS) L1 backgrounds. I will use a series of arrays to elicit two types of responses from participants. First, an attention test will measure the cognitive understanding or awareness of the article distinction rather than the subjects’ ability to produce the determiner construction. Second, participants will be asked to rate the grammaticality of appropriate and inappropriate usage of English articles. These tests will indicate the overt and covert level of acquisition of English articles for ELLs from different L1 backgrounds and reveal the degree of influence that L1 syntactic structures have on the interlanguage development of functional categories.
2.1 Interlanguage Grammar

Numerous studies have shown that the syntactic structures of a language learner’s L1 influence the acquisition of L2 grammar. The period of L2 grammar acquisition that encompasses the beginning, intermediate, and advanced stages of language acquisition is referred to as interlanguage grammar and is characterized by patterns of grammar errors in language production. White (1990) concluded that the grammatical errors made by intermediate and advanced language learners indicate the positive or negative effect of L1 grammar on L2 acquisition. If the grammatical structure involved in the error exists in the L1 but not in the L2, the learner will overgeneralize the use of that structure thereby making an error in the L2. The reverse is true in that in a case where a structure that does exist in the L2 but not in the L1, the learner will undergeneralize (or omit) the structure. Ellis (1999) identified positive and negative phonological, lexical, syntactic, semantic, and pragmatic transfer issues in L2 acquisition (p. 22). There are at least seven hypotheses that specifically address the relationship between the grammar structure availability in the L1 and the grammar structure acquisition in L2 (White 2003; Hawkins 2005). The most popular and well documented theory is the Full Transfer Full Access Theory posed by Schwartz and Sprouse (1996). Essentially, the theory poses the same transfer effect that White (1990) describes. Where the gap in the research exists is the type of data that is used to examine the presence or absence of syntactic structures in the interlanguage grammar system. All of the prior research (to the best of my knowledge) on the acquisition of L2 article structures relies on production data. Since there is a general agreement among language acquisition experts that there is a marked difference between linguistic
competence and linguistic production, a glaring need for new methodology is apparent. In their study of article transfer, Ionin and Montrul (2010) assert that production and grammaticality judgment data revealed the transfer of article attributes and interpretations from an L1 with some type of article structure to an L2 with an article structure. Even with this assertion, they recognized the limits of their methodology and recommended further study using both explicit measures like accuracy in article choice tests and implicit measures like reaction times of article choice responses. This need for implicit article testing is further evidenced by the conflicting conclusions drawn from explicit or production data in other studies.

2.2 Article Production Data

Two studies were conducted using the same set of data and reached opposing conclusions regarding the role L1 functional structures play in the development of interlanguage grammar in L2 learners. The data used in both studies came from learners with Turkish and Korean L1 backgrounds which provided two distinct L1 to L2 syntactic environments since German and Turkish share similar functional structures that do not exist in Korean. The juxtaposition of these two studies demonstrates the inability of either theory to reach a definitive conclusion regarding the degree of L1 transfer of functional categories using syntactic constructions or grammaticality tests.

2.3 Partial L1 Influence and Minimal Trees

Vainikka and Young-Scholten (1994) assert the theory of Partial L1 Influence as the best model to explain the development of interlanguage grammar and L2 grammar acquisition. In their study of German language learners from Korean and Turkish L1 backgrounds, they posit that that while L1 lexical
structures influence the development of interlanguage grammar, L2 functional categories are solely attained in interlanguage development and are not transferred (either positively or negatively) from the L1 grammar. This would mean that the presence or absence of the L2 functional category in the L1 grammar makes no difference in the interlanguage grammar development. They begin by defining the grammatical structure features of the early, intermediate, and advanced stages of language learning. They observe that in the Intermediate stage of language learning, functional projections begin to emerge inconsistently and lack subject-verb agreement. They also propose that inconsistent verb movement indicates impoverished or absent functional structures.

They conclude that functional categories are acquired in interlanguage grammar through the same process as they are acquired in L1 acquisition and that L2 learners begin with empty functional constructions in their interlanguage grammar regardless of their L1 background.

2.4 Absolute L1 Influence

Conversely, Schwartz (1998) uses the same data set to argue for Absolute L1 Influence. She asserts that L1 grammar is the starting point of interlanguage grammar development. She also claims that interlanguage grammar will have either the same functional categories that exist in the L1 grammar or a modified version of those structures. She concludes that L2 functional categories are either transferred from L1 or added to interlanguage grammar to meet the syntactic structure needs of the L2.

In response to Vainikka and Young-Scholten’s (1994) assertions, Schwartz (1998) focuses on the implications of functional categories being absent from early stages of L2 acquisition. A concept of modular grammar organization
suggests that any grammatical structure that implicates or includes a functional category in its derivation would fail to transfer from L1 to L2 in the early stage. This means that well-formed derivations that satisfy the Case Filter, which applies to Determiner Phrases, would be impossible because Determiner Phrases are functional projections which are not present in interlanguage grammar as suggested by Vainikka and Young-Scholten. A-movement, A-bar movement, and head movement would also be impossible for L2 learners in the early stage because they require a landing site within a functional projection. Schwartz cites further data to show that the thematic verb movement errors that are both commonly and persistently made by French L1/ English L2 learners demonstrate that movement errors are made. These errors suggest that movement occurs; movement indicates the presence of functional categories in all stages of L2 acquisition. Schwartz expresses doubt that a system of grammar (even UG) devoid of any and all syntactic operations that make use of a functional projection is characteristic of the grammar required for even the earliest stages of L2 learning.

The fact that both studies used the same learner produced construction data to argue two different theories of L1 Influence indicates that production data cannot quantify the degree of L1 influence on the development of functional categories in interlanguage grammar.

2.5 Assessing Covert Grammar

A new approach is needed since production and judgment tasks have not been definitive in making the distinction between Partial and Absolute L1 Influence theory. Goodenough (1977) used reaction times to identify gaps in the mental grammars of agrammatic aphasic subjects who could not produce the syntactic structures regardless of their apparent comprehension of them. Her study
determined that participants who had retained the definite/indefinite article distinction in English would have specific and marked reaction times to stimuli with appropriate and inappropriate article use regardless of their productive ability. My study utilizes the perception paradigm (Figure 1) used by Goodenough et al. (1977).

![Sample Goodenough array](image)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Appropriate</th>
<th>Definitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A square one</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>A round one</td>
<td>+</td>
</tr>
<tr>
<td>3</td>
<td>The square one</td>
<td>+</td>
</tr>
<tr>
<td>4</td>
<td>The round one</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 1: Sample Goodenough array

The four conditions in Figure 1 show the 4 possible ways in which an article can be used to prompt an item selection. The four conditions indicate the appropriateness or correctness of the article used as well as whether or not the subject would be able to identify which item he/she is supposed to select. While conditions 1 and 2 are equally difficult, condition 3 is the easiest as it is both appropriate to the array and the most definitive as to which item is to be selected. Condition 4 is the most difficult since the article use is both inappropriate to the items presented and not definitive enough to clearly indicate which item is the desired choice. The use of these tests proved that it was possible to measure competence and awareness of functional morpheme structures without eliciting
productive data. Goodenough et al. (1977) were able to measure reaction times to appropriate and inappropriate uses of the definite and indefinite article in English. These measurements were used to identify gaps in grammatical architecture. This paradigm can serve as a test for the covert presence of functional categories in L2 learners.
CHAPTER 3: METHODOLOGY

3.1 Rationale

The relationship between L1 grammar and interlanguage grammar informs L2 teaching methodology because it affects the core principles of teaching English to speakers of other languages. If a learner can transfer functional categories from their L1 to their L2, then curriculum and instruction can be specialized for languages with and without functional structures like definite and indefinite articles. Learners whose L1 has a similar article system (SAS) as the target language could benefit from targeted instruction that would draw upon their knowledge of articles in their L1 and use that knowledge as a foundation for acquiring L2 articles. On the other hand, learners whose L1 has no article system (NAS) would need instruction that introduces articles as a new concept that must be built into the grammar from scratch. The application of response time tests can fill a gap that currently exists in the corpus of research on L1 influence on L2 interlanguage development and acquisition of article structures.

3.2 Research Questions

The following three questions guide the focus and research for this thesis:

1. Will intermediate English Language Learners from SAS and NAS L1 backgrounds have the same attention (measured by reaction time) to English definite/indefinite articles despite the differences in their L1 functional categories?

2. Will intermediate SAS L1 and NAS L1 English language learners rate the grammaticality of English definite/indefinite article distinctions similarly despite the differences in their L1 functional categories?
3. Can the degree of L1 influence on functional category development in interlanguage grammar be measured through attention tests?

3.3 Participants

The attention and grammaticality judgment tests were administered to a total of 46 participants. The control group is made up of 10 monolingual, native speakers of English. The SAS group consists of 18 speakers of Arabic and Spanish learning English at the American English Institute (AEI) at California State University, Fresno. Arabic and Spanish both have an article system making them SAS languages. The NAS group includes 18 speakers of Chinese, Japanese, and Indonesian learning English at the AEI. Chinese, Japanese, and Indonesian qualify as NAS languages because they do not have an article system of any kind. The participants’ English proficiency range from Intermediate to Advanced based on their score on TOEFL or IELTS tests and formal assessments administered when the participants began the term at the AEI. Before testing began, all participants completed a questionnaire (Appendix) designed to gather demographic information regarding their ESL and EFL background.

3.4 Attention Test

An attention test based on the Goodenough et al. (1977) paradigm was used to measure participants’ attention to appropriate and inappropriate uses of the definite and indefinite articles of English. In this study, participants completed two attention tests using the same pattern as the four conditions shown in Figure 1 but which varied in difficulty. The first test involved only 1 variable, either the color or size of the objects in the stimuli (Figure 2).

The second attention test involved two variables, the shape and color of the objects in the stimuli (Figure 3).
Click on a green apple.

Click on the big apple.

Figure 2: Attention test 1 sample arrays

Click on a square.

Click on the black shape.

Figure 3: Attention test 2 sample arrays
While the arrays in Figure 3 contain more distractors than those in Figure 2, the same pattern of response times should be evident in the control group of native English speakers. The response times of native English speakers, Similar Article Structure (SAS) L1 ELLs, and No Article Structure (NAS) L1 ELLs will indicate whether there is a difference in the interlanguage development of determiner phrases between L1s with different functional structures.

3.5 Attention Test Data Collection and Measurement

A training session was conducted 24 hours prior to the first attention test to familiarize the participants with the visual stimuli, vocabulary, and verbiage of the test arrays. The arrays were randomly arranged in a PowerPoint presentation. Each slide contained one array and a sound effect that played when a new slide was presented. Each participant sat in front of a computer in a sound proof booth and proceeded through the test by using a mouse to select the item in the array that they believed met the criteria of the prompt. Accuracy was not a factor in this test but visual monitoring of the selections made eliminated participants who made an error in item selection more than 25% of the time. A digital sound recorder recorded the test session and each recording was orally labeled using the participant’s designated number.

The audio recording was uploaded into Praat (Boersma & Weenink, 2013) and response time measurements were made by isolating the time stamp of the click of the mouse and subtracting it from the time stamp of the slide display sound effect. These measurements were recorded into an excel spreadsheet for analysis.
3.6 Grammaticality Judgment Test

The grammaticality judgment test was administered in a paper and pencil format with 36 test items. Each item contained a set of visual stimuli with an arrow indicating the target object and a pair of sentences describing the target object. One sentence contained appropriate article use while the other contained inappropriate article use (Figure 4).

![Figure 4: Grammaticality judgment test sample arrays](image-url)
It is important to note that the appropriateness and not the definiteness was the target for this task. The participants were instructed to rate the acceptability of two statements using a 5 point scale similar to the rating arrays used by Montrul (2001) in her study of L1 verb structure transfer into interlanguage grammar. A training session was conducted before participants completed the task in order to familiarize them with the 5-point scale and the instructions. The ratings for each appropriate and inappropriate item were recorded into an excel spreadsheet for analysis.
CHAPTER 4: RESULTS AND DISCUSSION

4.1 Attention Test Reaction Times

For practical purposes, the attention test arrays are divided into three types shown in Table 1.

Table 1: Attention Test Article Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Appropriate</th>
<th>Definitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Condition 1 describes article use that is either appropriate or definitive, but not both and there are 16 Condition 1 arrays present in the data. Condition 1 is expected to be of medium difficulty and elicit medial reaction times. Condition 2 is the most difficult stimuli because the article use is neither appropriate nor definitive and there are 8 Condition 2 arrays present in the data. Condition 2 is expected to elicit the longest or slowest reaction times. Condition 3 contains the easiest stimuli because it is both appropriate and definitive which should elicit the shortest or fastest reaction times. There are 8 Condition 3 arrays present in the data.

4.1.1 Response Means

The response times for each participant to each of the 3 conditions were averaged and outliers were eliminated from the data using a 2 standard deviation
rule. Any value that was greater than \(((\text{standard deviation} \times 2) + \text{mean})\) was removed from the data and the mean was recalculated with the values that remained. It is important to note that there were no more than two values removed from any one participant’s data and only four participants whose initial data contained outliers. The group average response times shown in Table 2 indicate that the three participant groups followed the expected response time pattern that was predicted by the array conditions.

Table 2: Group Mean Response Times

<table>
<thead>
<tr>
<th></th>
<th>Condition 1</th>
<th></th>
<th>Condition 2</th>
<th></th>
<th>Condition 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (seconds)</td>
<td>SD</td>
<td>Mean (seconds)</td>
<td>SD</td>
<td>Mean (seconds)</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>2.345</td>
<td>.663</td>
<td>2.823</td>
<td>.797</td>
<td>1.991</td>
<td>.589</td>
</tr>
<tr>
<td>NAS</td>
<td>2.292</td>
<td>.591</td>
<td>2.448</td>
<td>1.021</td>
<td>2.077</td>
<td>.698</td>
</tr>
<tr>
<td>SAS</td>
<td>3.121</td>
<td>.708</td>
<td>3.945</td>
<td>1.406</td>
<td>2.912</td>
<td>1.042</td>
</tr>
</tbody>
</table>

All three groups had reaction time means that were slowest for Condition 2 since it was the most difficult; fastest for Condition 3 since it was the easiest; and medial for Condition 1 since it was either inappropriate or indefinite but not both.

4.1.2 ANOVA

A One Way ANOVA with Group (Control, NAS, SAS) as between Group factor and Condition (Con1, Con2, Con3) as within Group factor was carried out on the mean reaction times. The results showed the main effect of Group for condition 1, \(F = 8.529, p<.001\), condition 2, \(F = 8.041, p<.001\), as well as condition 3, \(F = 5.760, p<.006\). A Tukey Post Hoc was run in order to contrast the reaction times between groups within each condition.
4.1.3 Tukey Post Hoc

**Condition 1.** For Condition 1 (+,- or -, +) the Post Hoc shows that the control group and the NAS group had a similar speed of response. The difference between the group means was only .013 seconds and the difference was not significant (p<.999). The control and SAS groups had significantly different response speeds to Condition 1. The SAS group mean reaction time was .816 seconds (p<.001) slower than the mean reaction time of the control group. Likewise, the SAS group mean was .829 seconds (p<.001) slower than the NAS group. While the difference between the SAS and control group is expected, the difference between the NAS and SAS group shows a significant difference in their reaction times to Condition 1.

**Condition 2.** For condition 2 (-,-) the Post Hoc showed a very interesting relationship between the mean response times of the NAS and SAS groups. The NAS mean is .374 seconds faster than the control group but was not a significant (p<.689) difference. This means that for the most difficult arrays, the NAS participants reacted slightly faster than the Native English Speakers. The SAS group mean is 1.122 seconds slower than the control group but the significance is marginal (p<.045). This means that while the SAS participants took a little longer to react to the most difficult arrays, the speed was not slow enough to establish a strong difference between the learners and the Native English Speakers. These two mean differences indicate that neither the NAS nor the SAS group is significantly distinguishable from the control group, but a closer inspection shows that the NAS and SAS performance flank the control group and that flanking effect shows a significant difference between the two learner groups. The mean reaction time difference between the NAS and SAS groups is 1.497 seconds which is a
significant (p<.001) difference. This gap between the two groups of learners indicates a faster reaction time pattern for NAS participants and a slower reaction time pattern for SAS participants on the most difficult arrays in the attention test.

**Condition 3.** For condition 3 (+,+), the Post Hoc showed no discernable difference between the control and NAS groups since the reaction time means differed by .048 seconds (p<.988). The SAS response times were significantly slower with a mean reaction time that is .883 seconds slower than the control group (p<.027) and .835 seconds slower than the NAS group (p<.012). The SAS group is significantly slower than the NAS group in reaction to the easiest arrays showing completely different behavior between the two learner groups.

4.1.4 T-tests

A series of one-tail, paired T-tests was run on the condition variables labeled A, B, and C shown in Figure 5.

![Figure 5](image)

Figure 5: T-test variables for the 3 conditions of the attention tests

Table 3 shows the group means for each of the 3 variables. The numerical values indicate the difference between the reaction time means for each condition.
Table 3: Response Time Variables in Seconds

<table>
<thead>
<tr>
<th>Variable A</th>
<th>Variable B</th>
<th>Variable C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Condition 2 - Condition 1</td>
<td>Condition 1 - Condition 3</td>
</tr>
<tr>
<td>Control</td>
<td>.477</td>
<td>.353</td>
</tr>
<tr>
<td>NAS</td>
<td>.156</td>
<td>.215</td>
</tr>
<tr>
<td>SAS</td>
<td>.824</td>
<td>.209</td>
</tr>
</tbody>
</table>

The purpose of the variables is to remove the systematic differences between the learner groups’ reaction times and isolate the effect of the 3 conditions. The t-tests were run in order to confirm that the NAS group variables are significantly smaller than the SAS group and therefore indicate a significant difference in the learners’ reaction times based on L1 article availability.

The t-test on Variable A shows the NAS group has significantly (p<.017) smaller reaction time differences to Conditions 1 and 2 than the SAS group. That difference indicates that the NAS group showed lower attention to the inappropriateness of the article use in condition 2.

The t-test on Variable B shows that there is no significant (p<.489) reaction time difference between Conditions 1 and 3 for the learner groups. This similarity indicates that even though the reaction times were different for Conditions 1 and 3, the difference between the reactions is the same and therefore the attention to the definite or indefinite article in Condition 1 is the same.

The t-test on Variable C shows that the NAS group has significantly (P<.015) shorter reaction time difference to Conditions 2 and 3 than the SAS group. This indicates that the SAS group showed greater attention to the inappropriate article use in Condition 2 than the NAS group.
4.2 Grammaticality Judgment Test

The grammaticality ratings each participant gave were divided into two categories: appropriate and inappropriate article stimuli. The + ratings are more desirable for the appropriate stimuli and the – ratings are more desirable for the inappropriate stimuli.

The percentage of each rating choice for appropriate article use is shown in Figure 6.

Figure 6: Grammaticality rating percentages for appropriate article use.

While the control group rated the appropriate article use as a +2 100% of the time, the two learner groups chose the +2 rating for less than 60% of the arrays. This shows a marked difference between the Native English Speaker group and the two learner groups. The NAS group chose +2 for 55% of the appropriate arrays +1 for 20% and 0 for 23%. This spread of rating selection indicates only partial mastery of the appropriate use of articles for the NAS group. Similarly, the SAS group rated appropriate article use +2 58% of the time, +1 12% of the time, 0 24% of the time, and 6% of the choices were negative ratings. These results also indicate partial mastery of the article system of English and do not indicate the same advantage for the SAS group as the reaction time tests indicated. A closer inspection of the individual data revealed that while a few of the participants in both learner groups responded similarly to the control group, the majority of the
learner participants selected the same rating for both appropriate and inappropriate article use.

The rating percentages for the inappropriate article use are shown in Figure 7. As expected, the control group chose the desired -2 rating 100% of the time.

![Figure 7: Grammaticality rating percentages for inappropriate article use.](image)

A comparison of the two charts reveals that the NAS group percentages for the +2 rating are almost identical (55% and 56%) for the two types of stimuli. This means that there was very little difference in ratings between appropriate and inappropriate article use in the grammaticality test arrays for NAS participants. The SAS group selected the desired -2 rating only 17% of the time. The SAS group does show a lower percentage of +2 rating selection for inappropriate article use at 36%. The SAS group also had a higher selection of the 0 rating indicating moderate acceptability of the inappropriate article use in the arrays. This data does not indicate a strong relationship between L1 article presence and L2 article acquisition, but does indicate some differences in the way the NAS and SAS participants perceive inappropriate article use in English.

4.3 Discussion

The analysis of the data confirms that there is a significant difference between the SAS and NAS leaners’ attention to the inappropriate use of articles in
English. The ANOVA confirmed that the group response means were not just numerically different, but statistically different. The post hoc showed that the SAS group had significantly slower response times for the three conditions than the NAS group. At first glance the post hoc could be interpreted as showing that the NAS group responded similarly to the control group and that the SAS group simply took longer to respond to the prompts. The Variable calculations and t-tests delve more deeply into the effect of the conditions on the response times of the three groups. The Variable means indicate that the control and SAS groups respond differently to the three conditions whereas the NAS group does not. The mean reaction times for Variable C show that the control and SAS groups had the largest difference in response times between the easiest and most difficult conditions. This difference indicates that the control and SAS groups noticed the difference in appropriateness of the article use in the two most drastic conditions in the arrays. In contrast, the NAS group showed only a tenth of a second difference between the reaction times to all of the conditions. There was not a significant difference in the response time of the NAS group to the appropriate or inappropriate use of articles in the arrays. By factoring out the speed of response and focusing on the differences between the response means, the t-tests confirm that the NAS and SAS groups reacted differently to the test stimuli.

The results of the grammaticality judgment test indicate that the participant groups responded to the arrays and rating task differently than the Native English speakers. While the learner groups’ rating choices were similar for the appropriate article use arrays, the SAS group showed a very different range of responses to the inappropriate article while the NAS group did not. The similarity between the ratings for the appropriate and inappropriate article for the NAS group supports the findings of the attention test. Just as the reaction times of the NAS group did
not differ significantly from one condition to the next, so the appropriateness of the article use did not affect the rating choice of the NAS participants. As was seen in the attention test, the SAS group showed a different response according to the appropriateness of the article use in the arrays. The results reveal that the SAS group selected ratings closer to the target or desired choice more often than the NAS group. While the SAS group did not perform as well as the control group, the overall results showed a better rating selection than the NAS group for the inappropriate arrays.
CHAPTER 5: CONCLUSION

The reaction time test analysis indicates marked and significant differences in the way that English Language Learners from different L1 backgrounds respond to definite and indefinite article use in English. The learners in the NAS group demonstrated lower reaction time differences and therefore lower attention to arrays with articles presented under Conditions 1 and 2. The most interesting evidence is the post hoc for Condition 2 which shows the NAS and SAS flanking the control group. Since Condition 2 is the most difficult, the flanking effect shows a dramatic difference in attention to article use between the NAS and SAS groups when the article is both inappropriate and indefinite. Similarly, the grammaticality judgment test demonstrated that while the two learner groups reacted similarly to the appropriate article stimuli, the SAS group selected ratings that were more desirable than the ratings selected by the NAS group. This more accurate rating selection on the part of the SAS group indicates a stronger attention to inappropriate article use than the NAS group displayed.

The overall conclusion that can be drawn from both tests is that the presence or absence of articles in the L1 grammar influences the acquisition of articles in interlanguage grammar. This conclusion supports the Absolute L1 Influence of Full Transfer Hypothesis and calls into question the Partial L1 Influence or Minimal Trees Hypothesis.

Further research using the reaction test paradigm with a larger group of participants could reveal more concrete patterns of attention to articles by English language learners.
REFERENCES
REFERENCES


Ionin, T., & Montrul, S. (2010). The role of L1 transfer in the interpretation of articles with definite plurals in L2 english: Role of L1 transfer in the interpretation of articles. Language Learning, 60(4), 877-925.


APPENDIX: QUESTIONNAIRE
Participant Number :
Native Language :
Age:
Gender :
Education:
    Please choose the highest level of education you have completed
English as a foreign language:
    Please indicate the age at which you started learning English
English as a second language :
    Please indicate the age at which you started READING in English
English as a second language :
    Please indicate the age at which you started WRITING in English
English as a second language :
    Please indicate the age at which you started SPEAKING in English
English in the U.S. :
    How many months or years have you been studying English in the U.S. or another English speaking country?
English Usage :
    How many hours a day do you spend communicating in English?
English Usage :
    How many hours a day do you spend communicating in your NATIVE LANGUAGE?
English Confidence :
    Which skill do you feel is your best in English?
English Confidence :
    Which skill do you feel is your worst or biggest challenge in English?